Shoreline Master Program UPDATE

RESPONSES TO PREVIOUSLY UNANSWERED SHORELINE MASTER PROGRAM RELATED QUESTIONS/REQUESTS COLLECTED BETWEEN MAY AND DECEMBER OF 2009 ORIGINATING FROM THE PLANNING COMMISSION AND PUBLIC

1) Summarize all critical areas elements to be transferred to new SMP from CAO section of LUC.

This analysis was included in the July 8, 2009 meeting memo and presentation by staff. This effort is ongoing and we expect more discussion about transfer of specific elements from the CAO to the SMP will take place as the SMP develops and work focuses on some of the elements included in the CAO. To review the Planning Commission Agenda Memo including an analysis of the existing CAO, go to: http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda7-8-09d.pdf . To view meeting minutes go to http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf .

2) Summarize Anacortes CAO/SMP issues.

A summary of these issued was included in the July 8, 2009 meeting agenda memo. Further information regarding the Anacortes issues were addressed in a desk package memo to the Commission. Legal staff was present at this meeting and provided an overview and answered questions. To review the Planning Commission Agenda Memo got to http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda7-8-09d.pdf . To view meeting minutes go to http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf .

3) Develop options/programs for Bellefield Option #2 to better describe how this option would function.

Options were developed for Bellfield and presented at the July 8, 2009 meeting. Specifics to be developed as update process moves out of policy portion of process and into regulation. See July 8, 2009 meeting agenda memo at http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda7-8-09d.pdf , meeting minutes at http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf , and staff presentation (in project record).

4) Identify possible incentives to relocate/consolidate buildings in areas of least sensitivity on Bellefield site.

Discussed during the July 8, 2009 meeting. See meeting minutes at http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf .

5) Contact St. Josephs – discuss SMP update with them and ask them about their long term goals.

Staff have contacted this property owner. A meeting was held and a follow up letter was included in the July 8, 2009 desk package. During the July 8, 2009 Planning Commission meeting staff and the Commission agreed that Shoreline Residential designation is the best option for this property given the circumstances. See meeting minutes at http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf .

6) Contact Meydenbauer Condos. Discuss SMP update with them.

Staff have contacted both the Meydenbauer Bayshore Condos and the 101 Meydenbauer Condos. A meeting was held with the Meydenbauer Bayshore Home Owners Association. A follow up letter was included in the July 8, 2009 desk package. Staff have again been in contact with the ownership of these properties and we anticipate scheduling meetings in the spring of 2010.

7) Identify the differences between the two possible designations for Meydenbauer Condos.

Additional analysis was included in the July 8, 2009 meeting memo. During the July 8, 2009 Planning Commission meeting staff and the Commission agreed that Shoreline Residential is the best option for this property given the circumstances. See meeting minutes at http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf .

8) Identify what dock restrictions might apply to Meydenbauer Condos.

Staff have analyzed this site and have identified that a shared dock could be constructed at either the Meydenbauer Bayshore Condos or the 101 Meydenbauer Condos, however permitting for this type of amenity would be complex and would require Corps, WDFW (HPA), and City permits. Any proposed dock may require the construction of a boardwalk across the wetland area in order to reach a depth of water sufficient to construct a dock that meets the dimensional standards in LUC 20.25E. Dredging may also be required if the depth limitations are prohibitive. See July 8, 2009 meeting agenda memo at http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda7-8-09d.pdf

9) Contact other property owners with sites where special designation is proposed.

Staff have contacted Vasa Park Resort and informed them of the status of the update and the proposed environment designation for the Vasa Park property. A copy of correspondence was included in the July 8, 2009 desk packet. A subsequent meeting date has been set with the Vasa Park management.

10) Refine definitions of Urban Conservancy vs. Urban Conservancy Low Intensity to better differentiate between the two – otherwise combine into one.

In response to this request staff has modified the Urban Conservancy – Low Intensity proposed environment to Urban Conservancy – Open Space, as this is more reflective of the intent of this proposed designation. A complete summary of proposed Shoreline Environment Designations is available as part of the July 22, 2009 Planning Commission Agenda Memo available at http://www.bellevuewa.gov/pdf/PCD/PacketPlanningCommissionAgenda7-22-09.pdf .

11) Define what is meant by mutual consistency.

The term "mutual consistency" is located in WAC 173-26-221(6), which provides general provisions related to water quality for shoreline management programs. This provision only applies to uses and development in the shoreline. Shoreline jurisdiction is generally landward 200 feet from the ordinary high water mark.

Mutual consistency is similar to the term "internal consistency used in the Growth Management Act, Chapter 36.70B RCW (GMA). The GMA requires internal consistency among comprehensive plans and development regulations. The Central Puget Sound Growth Management Hearings Board has defined internal consistency to mean provisions that work together:

Internal consistency means that provisions are compatible with each other – that they fit together properly. In other words, one provision may not thwart another. Consistency can also mean more than one policy not being a roadblock for another; it can also mean that policies of a comprehensive plan, for instance, must work together in a coordinated fashion to achieve a common goal."

West Seattle Defense Fund v. City of Seattle (WSDF I), CPSGMHB No. 94-3-0016 (Apr. 4, 1995). Thus, the City's shoreline management provisions must be consistent with the city's storm code, which regulates water quality throughout the city.

12) What public uses are allowed in the Aquatic Environment?

Navigable waters, such as Lake Washington and Lake Sammamish, which are assigned an Aquatic Environment designation, are open to use by the public regardless of the ownership of the underlying shoreland (public or private). It is well established law in Washington that these uses include fishing, boating, swimming, water skiing, and "other recreational uses generally regarded as corollary to the right of navigation and the use of public waters." See full response to this request in the July 8, 2009 desk packet.

13) Where does private ownership end and State ownership of aquatic lands begin?

At statehood, Washington claimed absolute fee simple ownership of the land underlying its waters. The state subsequently sold approximately thirty percent of state shorelands up until 1979. Thus, some shorelands are in public ownership, while others are held in private ownership. Shoreland ownership is demarcated by either the federally-established meander line or the ordinary high water mark, depending on historical context. Because the analysis of shoreline ownership is complex, and influenced by historical land patents and natural processes that move the shoreline over time, the exact division of property must be evaluated on a site-by-site basis. Staff at the Washington State Department of Natural Resources, (DNR) will assist shoreline property owners with this research on a case-by-case basis. Under RCW 79.105.430 private property owners who do not own the shoreland (below OHWM) are granted the right to construct a dock on state owned shorelands without obtaining an aquatic lease granted by DNR. This does not, however, grant them exclusive right to the shorelands or transfer ownership of state owned shorelands to the adjacent upland owner.

14) Can the public use a beach if it is below the OHWM?

This area of law is not well-settled in Washington. The Washington State Supreme Court has yet to consider whether the public has a right to walk across publicly held tidelands (or shorelands), let alone privately held shorelines. But it is well-settled that private owners of tidelands may exclude others from their land. If that portion of the beach that is below the OHWM is proven through title/deed research to be in private ownership, or is occupied by a lease granted by DNR, then public use of that shoreland beach (below OHWM) is not allowed. If the shoreland beach (below OHWM) is in DNR ownership, then it likely may be used by the public subject to rules established by DNR.

15) Compile # and type of permits processed related to shoreline development following adoption of CAO.

In response to this request staff is completing a study of shoreline permits issued since effective date of the CAO. We anticipate providing this information in the summer of 2010 as review of the working draft progresses.

16) Provide OHWM study to Commission.

Staff has made copies of this study and supporting documentation, provided it to the Commission, and have added it to the project library. The study is also available online at http://www.bellevuewa.gov/shoreling-science-documents.htm .

17) Provide past minutes from CAO update to Commission.

Minutes from past CAO meetings have been located and printed for the Commission to review. Binders of past CAO meeting minutes were provided to the Commission.

18) Develop an innovative incentives scenario for option 2 of Bellfield Office Park.

Staff anticipates completing additional analysis on redevelopment incentives for the Bellfield Office Park as review of the working draft progresses.

19) Make provisions for routine maintenance as allowed in Marina Civic.

To be added to the allowed use charts for Marina Civic and brought to future Planning Commission meetings when discussion on Marina uses begin again under review of the working draft.

20) Develop a more detailed analysis and recommendation on allowed uses vs. conditional uses for marinas. Consider value in retaining hearing process for marina. Also include summary of how performance standard would work.

Staff are working on a more advanced analysis of different uses in the Marina environment and anticipate having this complete as we begin additional discussions on the Marina environment and what uses can/should be allowed.

21) Create an active calendar identifying the next steps and track process several months out.

Staff has developed a calendar that was presented to the Commission at the September 23, 2009 meeting and updated for every subsequent meeting. Staff has been tracking project status on a long range calendar that identifies various tasks and deadlines for completion.

22) Information should be delivered to the Commission in advance of the meetings with sufficient time for Commission review before the meeting.

Desk packets will only be used for general information or for information related to future meetings. Staff does not anticipate delivering desk packets to the Commission that includes information on the evenings topics.

23) Request from public regarding who is responsible point of contact in City regarding dredging/siltation of Meydenbauer Bay.

Customers with non-development related Utilities Department questions should contact the Utilities Maintenance information line at 425-452-7840, or email the Operations and Maintenance support staff at OMSupport@bellevuewa.gov . Utilities questions related to development projects should be reported to the Utilities Review desk at 425-452-4187. The Utilities Department director was present at the October 14 meeting and answered as many questions as time allowed. Additional questions not answered during the meeting have been forwarded to the Utilities Department staff to be answered where possible.

24) Identify clearly what points of public involvement are available in the update process.

Staff has reviewed the public outreach completed to date as part of the SMP update with the Commission during several meetings and will continue to review with the Commission what steps staff plan to take to engage interested parties and the public. Most recently, outreach was discussed in detail with the Commission at the February 24, 2010 meeting. The agenda memo prepared for this meeting is available at http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda2-24-10b.pdf .

25) Identify which rules may not be accepted by Ecology. Some existing rules CAO adopted rules may not be acceptable to Ecology as part of update process.

Staff anticipate that this will be an ongoing process as we begin to look at what regulatory concepts may yield the desired outcomes identified. We anticipate looking at current rules in use, how effective they have been, and where improvements can be made. We also anticipate having discussions regarding specific components of the CAO that may not be acceptable to Ecology with the Commission at future meetings.

26) Provide a summary of other jurisdictions SMP policies and regulations, especially Redmond's.

A policy and regulation comparison document is in development and is intended to review several jurisdictions SMPs with the purpose of identifying unique concepts, departures from the WAC

Guidelines, and new regulatory concepts. This comparison document will be used in conjunction with the working draft as the Planning Commission works through each section. Such an approach will prove valuable as the Commission reviews the draft SMP.

27) Need to clarify when we are amending WAC citations vs. adopting the WAC section verbatim.

As part of the working draft that will be presented in April 2010, staff will attempt, whenever possible, to identify those sections of the WAC Guidelines that are so prescriptive as to require verbatim adoption and where a departure is appropriate given Bellevue's specific circumstances/conditions.

28) Request that staff provide a summary of how public access dedication would work.

Public access was discussed with the Commission as part of the July 22, 2009 meeting where staff was asked to prepare additional information in support of any requirements to provide public access. Staff anticipates this will be included in the working draft available for review in April 2010. Public access discussions were documented in the July 22, 2009 meeting minutes available at http://www.bellevuewa.gov/pdf/PCD/7-22-09.pdf .

29) When WAC guidelines are required vs. when they are suggestions. Possibly create a summary of WAC guidelines and extract what is required vs. what is optional.

To identify when specific sections of the WAC guidelines are required, staff will note in the working draft SMP when a policy or regulatory concept has been extracted directly from the WAC, when it has been copied from existing policy or rule, or when it has been borrowed from other jurisdictions. WAC Guidelines are available at http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/SMP_Guidelines_Final.pdf .

30) Buffers vs. use of other terminology like vegetation preservation area.

As part of the working draft that will be presented in April 2010, staff will attempt to provide alternatives to specific terminology that carries an associated negative connotation. For example, the use of the term "Buffer" vs. the use of the term "Setback". While the two ultimately can provide the same outcome, many residents associate the term "Buffer" with heavy controls on use and activity, while "Setback" is a more friendly term. It is important to understand that shoreline buffers differ from a wetland or stream buffer in that some increased level of use or activity within the buffer is anticipated and allowed because of the requirement to access the water for recreational purposes. However, regardless of the terminology used, the outcome must still achieve no net loss of ecological function.

31) Request for a discussion on science supporting update.

In response to this request staff organized several science briefing meetings in the fall of 2009. These meetings were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm .

32) Provide a list of elements to be transferred from CAO and identify which we will be revisiting and which are not open for discussion.

CAO elements relevant to the SMP update were first presented to the Commission during the July 8, 2009 meeting and were again addressed during the September 23, 2009 meeting. These elements will be integrated into and included as part of the working draft that will be presented to the Commission in April 2010. Any changes to the 2006 regulations would be necessarily limited, and would be based on experience gained from three years of permit review, significant changes in scientific understanding, changes in the environmental context that was identified during the shoreline characterization (Phase 2), and ideas advanced by the regulated community that would achieve the same outcome at less cost or impact on private property owners. Agenda Memos and meeting minutes from the July 8, 2009 and September 23, 2009 meetings are available as follows:

July 8, 2009

Agenda Memo:
http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda7-8-09d.pdf

Meeting Minutes:

http://www.bellevuewa.gov/pdf/PCD/7-8-09.pdf

September 23, 2009

Agenda Memo:

http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda9-23-09a.pdf

Meeting Minutes:

http://www.bellevuewa.gov/pdf/PCD/9-23-09.pdf .

33) Create and maintain a glossary of terms related to the update.

In development in the form of a "Definitions" section as part of the working draft SMP. To be presented along with the working draft in April 2010. Additional terms are expected to be identified during future meetings and will be added to the list as needed.

34) Provide a list of environmental regulations that apply in Bellevue toward protection of natural resources and environmental quality.

For list of local and regional regulatory requirements that may apply in Bellevue visit the State Office of Regulatory Assistance permit website at http://www.ora.wa.gov/resources/permitting.asp .

35) Research and summarize the impacts of recreational water users on lake functions and water quality.

Staff has already begun to research this issue in response to editorial articles published in the Bellevue Reporter on shoreline erosion and recreational watercraft use. Staff has been in contact with other jurisdictions in different parts of the country that face similar problems in an effort to identify unique ways of dealing with these issues. Results of this research will be provided during review of the working draft in the summer and fall of 2010. Bellevue Reporter Articles on Lake Sammamish recreation can be accessed at: http://www.pnwlocalnews.com/east_king/bel/sports/48167342.html and http://www.pnwlocalnews.com/east_king/bel/opinion/letters/49199407.html .

36) Identify what elements in the Parks Levy package include improvements in the City's lake water quality.

This question is not relevant to the SMP update as the SMP update does not have bearing on the Parks levy that was passed last year, however staff have forwarded this question to the Parks Department for a response.

37) Provide papers authored by the science panel presenters.

Staff have provided copies of and references to papers authored by the speakers included as part of the agenda memos published prior to the meetings and have also posted links to the same papers/reports on the project website. Likewise, science presentations were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm .

38) Provide documents associated with 2006 CAO update.

Staff have provided copies of these documents to members of the Commission and have posted PDF versions of the documents to the project website at http://www.bellevuewa.gov/shoreling-science-documents.htm .

39) What is the importance or effect on the lake of a fish with a lot of energy (terrestrial food) or a fish with less energy (less terrestrial food)?

Although this specific question was not asked of the presenter, this information was covered in the October 28, 2009 presentation made by Tessa Francis. During her presentation, Ms. Francis identified the effects that different food sources (i.e. terrestrial vs. benthic vs. pelagic) have on lake fish populations. She summarized her research findings indicating that terrestrial and benthic food sources have higher energetic value to fish populations and that removal and suppression of shoreline vegetation and wood debris reduces the production and availability of terrestrial and benthic food sources, which is correlated to reductions in energy intake and growth of fish.

Meeting minutes are available at http://www.bellevuewa.gov/pdf/PCD/10-28-09.pdf . Science presentations were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm .

40) How are the following factors accounted for in your study: Size, Depth, Temp, Time, Species, Weight, Sample Size. Also define: association and correlation.

Variables are accounted for differently in each study completed dependent on the type of measurement being made. This is typically described in the "Methods" section of the research summary publication. For a description of factors evaluated in each study completed by Ms. Francis, please see published research documents included as Attachments 1, 2, and 3 to the October 28, 2009 Planning Commission Agenda Memo at http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda10-28-09b.pdf .

41) What are the specific biological and ecological differences between landscaped yards and buffered shorelines? If there has been no quantification of the difference, how do you plan to monitor this?

This information was covered in the October 28, 2009 presentation made my Ms. Francis. During her presentation, Ms. Francis identified the difference in the type, quantity, and value (caloric) of the food resources available to fish in both natural and developed shoreline settings. Findings of several research studies conclude that (taken from Ms. Francis' presentation):

- Shoreline development is correlated with riparian deforestation and loss of coarse wood; and
- Loss of littoral coarse wood is associated with changes to littoral habitats and benthic resources; and
- Riparian deforestation is associated with losses of terrestrial insects from fish diets; and
- Changes to littoral and riparian habitats (i.e. shorelines) are correlated with reductions in energy intake and growth of fish; and
- Retention of littoral habitat structure and riparian vegetation appears important for sustaining top predators and food webs.

When considering these findings, it is possible to conclude that the retention of existing vegetated buffers and the creation of new vegetated buffers in conjunction with the use of other enhancement measures (placement of wood debris, etc.) will assist in increasing organic matter inputs and increase terrestrial food resource availability for fish populations. Meeting minutes are available at http://www.bellevuewa.gov/pdf/PCD/10-28-09.pdf . Science presentations were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm. Documents and published studies related to the October 28, 2009 meeting, including a description of ecological differences of landscaped yards and natural shorelines, are available at http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda10-28-09b.pdf .

42)What, besides urban vs. rural, were the characteristics of these lakes in your comparison of the 4 lakes? For example was the population of the types (ages in life cycles) of fish such that you controlled for this variability?

Characteristics of lakes and other resources studied are summarized in the published research findings and are different for each study completed. Study foundations, assumptions, and variables were covered in Ms. Francis' October 28, 2009 presentation. Meeting minutes are available at http://www.bellevuewa.gov/pdf/PCD/10-28-09.pdf . Science presentations were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm . Documents and published studies related to the October 28, 2009 meeting are available at http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda10-28-09b.pdf

43) Ranking Stressors, how big is stormwater runoff compared to others on egg-fry survival?

Streams are important to fish reproduction as they provide habitat for spawning and reproduction, as well as serving as a refuge for early rearing, maturation, and migration. Stormwater, specifically volumes and velocities, rank very high as a stressor affecting egg-fry survival due to the impacts it has on habitat through bed stability, including gravel transport, scouring, and channel downcutting. This information was covered in the November 4, 2009 presentation. Meeting minutes are available at http://www.bellevuewa.gov/pdf/PCD/11-4-09.pdf . Science presentations were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm .

44) Do many salmon kokanee fingerlings ever swim on the Bellevue side of the lake? Can you prove it? Why are the Kokanee no longer in Lake Washington?

Yes, kokanee populations utilize the Bellevue side of Lake Sammamish as documented through kokanee hydrophone studies performed by King County. This information was covered in the November 4, 2009 presentation. Meeting minutes are available at http://www.bellevuewa.gov/pdf/PCD/11-4-09.pdf . Science presentations were recorded by Bellevue TV and are available for viewing online at http://www.bellevuewa.gov/shoreling-science-documents.htm . Similarly, Kokanee information can be accessed on the King County website at http://www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout/kokanee/documents/lake-washington-kokanee-status.aspx .

45) Does hydrologic impact have anything to do with the shoreline? Aren't the streams most important to regulate?

By hydrologic impact the speaker was referring to the interruption of the water cycle in the form of rain, snowmelt, or groundwater that occurs when the natural landscape is replaced with pavement and other impervious surfaces. Pavement and other impervious surfaces interrupt the hydrologic cycle, alter stream structure and habitat, and degrade the chemical profile of the water that flows through streams,

storm pipes and overland into lakes. These changes affect fish and wildlife in various ways, and can have cumulative within watersheds. While the impact is particularly pronounced in streams—as little as 10 percent impervious cover can substantially affect the amount of rainfall that filters into the soil, causing reduced groundwater recharge, increased flooding and bank erosion, increased temperature, and diminished stream stability— the impacts on water quality in lakes is also significant. Uncontrolled runoff can increased the amount of soil-bound phosphorus thereby accelerating nutrient loading leading to increased algae growth and shoreline fouling. Other urban nonpoint sources have pronounced adverse effects. Untreated stormwater discharging from road surfaces and parking lots can wash volatile organic compounds into streams and lakes with detrimental effects to lake biota. Heavy metals like zinc, cadmium, copper are also constituents of storm water and have deleterious effects on insects and fish. In residential areas, fecal coliform from pet waste, and chemicals used in fertilizers and pesticides are common inputs that affect water and habitat quality in lakes.

46) Is it possible the stream flow has been changed over the years so much that it is not possible to save the naturla kokanee runs without undoing the stormwater system that has been put in place over the last 50 years?

See discussion at question 45.

47) Is there some reason for not adopting the same shoreline management plan passed by Redmond?

Redmond's SMP is a good one and has been adopted by the Department of Ecology. Among its many requirements is a minimum 35-foot setback on Lake Sammamish and a variety of incentives and requirements to prompt or required vegetation of areas near the water's edge. On its major shoreline streams, a 150-foot buffer is required. While a good plan, it is appropriate for Redmond because it is based on local conditions. Diverse conditions on Bellevue's more extensive shorelines may differ in some respects from the rather uniform conditions in Redmond dictating alternative approaches. In any case, shoreline protections must be able to achieve no net loss of ecological function and provide protections at least equal to that of the jurisdictions' adopted critical area protections.

48) How does milfoil affect the lower layer of the lake?

This is an update to the City's Shoreline Master Program and is not a complete study of all issues associated with Bellevue's aquatic resources. Comment noted.

49) Our citizen fish expert says the kokanee population decline is due to: 1) Channelization of the Sammamish River; 2) Degradation of water quality from urban population; 3) Stream hydrology; 4) Upstream habitats. The speakers mentioned shoreline development as an additional cause. What specifically are you referring to?

Shoreline development has a number of negative consequences, not the least of which is the decoupling of the shoreline inputs from littoral habitat due to clearing land, building structures and constructing bulkheads. This can affect the input of nutrients that affect in-lake primary productivity and inputs outside the system of particulate and dissolved organic material that contribute substantially to lake

production. Another critical input that is often foreclosed by shoreline development is the input of coarse woody debris that provide important habitat structure to lakes in forest regions. For more information on the impacts of shoreline development on lake habitat see articles by Tessa Francis posted to the web the Planning Commission web site. http://www.bellevuewa.gov/pdf/Planning%20Commission/PacketPlanningCommissionAgenda10-28-09b.pdf .

50) Is it true that Kokanee used to spawn in Issaquah Creek? And if true, why don't they spawn in Issaquah Creek now?

Kokanee did spawn in the upper reaches of Issaquah Creek in large numbers but the early run is considered extirpated. Construction of a salmon hatchery in downtown Issaquah prevented Kokanee from reaching 32 miles of spawning habitat upstream above the hatchery. In addition, increased development in the watershed combined with effluent from a wastewater treatment plant, a milk processing plant, a hatchery and mining operations in the 1960s may have also contributed to the destruction of this early Kokanee run.

51) Are or have any fish populations been introduced into Lake Sammamish?

Nonnative piscivores introduced into Lake Sammamish include rainbow trout, adult yellow perch, and smallmouth and largemouth bass.

52) Is there any impacts from invasive vegetation such as millfoil (on Kokanee)?

Invasive vegetation is but just one of the impacts that affect Kokanee success in Lake Sammamish. (For more details, see Kokanee petition on King County website at http://your.kingcounty.gov/dnrp/library/water-and-land/salmon/kokanee/presentations/mkkc-pec-kokanee-briefing.pdf or http://your.kingcounty.gov/dnrp/library/water-and-land/salmon/kokanee/hdr-lk-sammamish-kokanee-report-012109.pdf .

53) How do the facts surrounding the Kokanee relate to Bellevue's shoreline regulations?

The decline of the Kokanee in Lake Sammamish is due to a range of environmental factors (see presentation on web site). However, Kokanee, for some part of their life cycle utilize shoreline habitats (littoral zone) at least part of the time. As a consequence, it would be best for them if the shoreline habitat was hospitable to their needs and contained the food and shelter necessary for their survival. Later in their life cycle they are still sustained by the cross-boundary inputs that enhance overall productivity of the key components of their diet. Residential development of lakeshores is associated with particular changes to key ecosystem characteristics, including nutrient levels, aquatic vegetation, and spatial distribution and growth rates of fish. These changes generally have negative effects that may be partially remedied in some cases by reconnecting the shoreline to the lakeshore and ensuring the flow of key ecosystem inputs. Removing hardened stabilization, planting vegetation at the water's edge and returning some coarse woody debris to the system may all have positive effects.

54) If the fry like the shallow, sandy areas, what is the purpose or impact of the City raising the levels of Sammamish in the fall/winter months? Especially relating to what it puts into the lake? It seems like bulkheads are being built to protect the shallows.

The City does not control the outlet of Lake Sammamish nor do we have a hand in setting the elevation of the Lake. Lake levels are controlled by the Corps through a weir (low-level dam) at the Lake Sammamish outlet at the head of the Sammamish River. This project practically eliminated flooding in the Sammamish River valley and reduced the maximum flood elevations and seasonal water elevations in Lake Sammamish. The weir was subsequently modified in 1998 to improve fish passage during low flow. Data collected by the U.S. Geological Survey (USGS) has regularly recorded the levels of Lake Sammamish since 1939. Not surprisingly, the weir has actually reduced average winter surface elevations of the lake from historical levels.

55) The City's 2009 Shoreline Analysis Report shows no coho, chinook, steelhead, or sockeye habitat on Lake Sammamish, just three tributary streams. Nothing along the shorelines. Why would armoring removal be advocated on Sammamish, then? Are you advocating something other than baseline conditions?

The maps you reference incorporate map information from Washington State's Priority Habitat Maps. WDFW identifies four categories of priority habitat of which freshwater aquatic habitats , wetlands and deepwater are but two. Because streams have been protected for a long time in Bellevue their habitat values are often higher and, when combined with spawning salmonids, they show up on this overview map. However, the fact that salmonids spawn in Lake Sammamish streams means they use the lake during part or all of their life cycle for the rest of the time. Improving habitat on the Lake Sammamish shoreline would further their opportunity for long-term success.

56) Have you interviewed members of fly fishing clubs about your observations?

No, but we would welcome contacts with specific information.

57) Has any research been conducted on how to control small mouth bass populations?

Smallmouth bass was introduced into the Lake Washington system in 1924 and is considered an important sport fish with a supportive constituency. Over the years WDFW has expanded the range of smallmouth bass in Washington State. Smallmouth bass is a predatory fish associated with overwater structures. They demonstrate a particular affinity for large piers with a large number of pilings resulting in attempts by regulatory agencies to recommend changes in the standards governing pier design and construction to limit overall size, number of pilings, and width and to increase light penetration. There are many mechanisms that might be employed to limit bass success should the state make this policy choice.

58) Removal of shoreline armoring is being proposed. These revertments were, typically, placed legally and at great expense. Would prospective benefits be of such magnitude to offset both loss of

investments, the cost of demolition, and the cost of restoration? How has this been calculated? Why should the public not participate in offsetting these costs?

There is no proposal by the City to force removal of existing legally permitted shoreline stabilization. Minor repairs designed to ensure the continued function of existing stabilization measures may be permitted without obstacle. However, where maintenance has been neglected over time, and repairs are so extensive as to require a completely new structure, our current code requires that this work be considered as an application for a new stabilization measure and is subject to all the performance measures outlined in the code. In such a case, this may mean construction of shoreline stabilization of a different type and design.

59) You mentioned that you see a big increase in the Chinook fry population in May with the influx of fish released from the Issaquah hatchery. Doesn't that imply that they are getting through Lake Sammamish effectively?

It simply implies that they are getting into the lake successfully.

60) How do the facts surrounding the Kokanee relate to Bellevue's shoreline regulations?

The decline of the Kokanee in Lake Sammamish is due to a range of environmental factors (see presentation on web site). However, Kokanee, for some part of their life cycle utilize shoreline habitats (littoral zone) at least part of the time. As a consequence, their survival would be best served if shoreline habitat was hospitable to their needs and contained the food and shelter necessary for their survival. Later in their life cycle as they move into deeper water they are still sustained by the cross-boundary inputs that enhance overall productivity of the key components of their diet. Residential development of lakeshores is associated with particular changes to key ecosystem characteristics, including nutrient levels, aquatic vegetation, and spatial distribution and growth rates of fish. These changes generally have negative effects that may be partially remedied by reconnecting the shoreline to the lakeshore and ensuring the flow of key ecosystem inputs. Removing hardened stabilization, planting vegetation at the water's edge and returning some coarse woody debris to the system may all have positive effects.

61) In the "pilot" studies - how would you set those up and would you pilot plots set up by: random sampling; stratified random sampling; clustered sampling; systemic sampling? How would you compensate those land owners picked as sampling sites if the restoration does not work?

Pilot studies would likely occur on public property or on private property that was volunteered for the project. What study design would be utilized would be determined at the time the pilot project is designed.

62) In a situation like Meydenbauer Bay which has a creek but no real wave action the bay is just filling in as a delta. What would you recommend?

Deltas form routinely at mouths of streams and are the result of natural processes. Because of changes in watershed hydrology in urban areas, the question to ask is whether delta formation is happening at abnormal rates.

63) Armoring: Public has no access over private property whether armoring is present or not. Position of armoring is not neccesarily into the water when juvenille salmon are migrating because lake level is lower in spring (May - June).

Comment noted.

64) What is the effect of where armoring is placed, relative to the normal high water mark? What is the normal high water mark, since it appears to be rising each year on Lake Sammamish?

Under current rules, shoreline stabilization must be placed at or behind the ordinary high water mark(OHWM). The ordinary high water mark is defined by the Department of Ecology as that mark that will be found by examining the shoreline and "ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from the abutting upland. . .in respect to vegetation as exists or may change naturally thereafter." The City of Bellevue has conducted a detail survey of the ordinary high water on Lake Sammamish and determined that, on average, the OHWM is at 31.8 NAVD 88. The City uses this elevation to determine buffer and structure setbacks, but still requires a site specific determination per the Ecology definition for stabilization placement

65) How do you account for the 3-4 foot high eroded bank along the "natural" shoreline of Saint Edwards State Park?

Comment noted. We are unaware of any study completed on this specific location. This is not within Bellevue's SMP jurisdiction.

66) Did you account for tide change and flow on the Hood Canal bridge, we have no tidal change on Lake Washington. How can you even suggest they are similar situations?

The lesson that one should take away from this presentation is that the physics of wave interaction with rigid surfaces like bulkheads is basically the same whether the medium be salt or fresh water. Consequently, many of the effects are similar. For more information see http://www.bellevuewa.gov/shoreling-science-documents.htm

67) Is it your position that all development on the lakes should be reversed?

None of our visiting scientists made such a claim. Instead they spent time identifying key habitat components that are negatively affected by residential development like clearing of mature vegetation, piers, bulkheads, paved surfaces, noting how modest changes in our practices could improve habitat features and shoreline processes. At no point did any presenter advocate going back to a predevelopment condition. Scientists study undeveloped or reference sites as a way to create a useful

point from which to measure the extent of ecological function and integrity that remains on a developed site.

68) How do you create natural shorelines for City Parks with your ideas for more natural beach?

Restoring City-owned shorelines while still accommodating active park use is a delicate balance but most shoreline restoration activities, like bioengineered stabilization, will actually enhance use and visual pleasure. Beach use of part of the shoreline is encouraged because recreation is a key component of an SMP. There are also habitat benefits since sandy or coarse grained substrate is often preferred by juvenile salmonids during some part of their life cycle. The key is to provide a diversity of habitats and to avoid creating negative impacts associated with piers and bulkheads.

69) What effect do blue-green algaes, pollution, and colloidals have on Sammamish?

See answer to question 45 and others.

70) Has this fish habitat work been written up in a report?

Consult shoreline update website at http://www.bellevuewa.gov/shoreling-science-documents.htm .

71) Do you consider research on these structures show fish are at all harmed by these structures? Does the additional movement lead to higher mortality? Do these fish avoid structures because their eyes do not adjust to the light?

There are lots of unanswered questions regarding the impact of man-made structures on salmonids and other fish. At this point we know, based on a number of studies in Lake Washington, that juvenile salmon tend to try to avoid dark areas under piers, especially large piers (see John Tabor's work on our web page.) The outcome of this avoidance is that they move into deeper water by swimming around piers rather than under them thereby using more energy and exposing themselves to increased predation from bass and other piscivores.

72) David/Ecology: What are some specific examples of major choices that Bellevue can make for the SMP update?

Sent to Ecology on February 11, 2010 for response. Mr. Radabaugh's response is as follows:

Here are three examples of major choices that Bellevue needs to make during its SMP update process. This list is not exhaustive.

a. Selecting shoreline environments. Historically, the Bellevue SMP has not contained shoreline environments. The SMP update must contain shoreline environments. The City can select shoreline environments based on the criteria in the Guidelines.

b. Based on expressed public interest, the details of the shoreline buffer standards appear to be a major policy decision in the SMP update. While the buffer standards must be shown to be able to achieve no net loss of ecological function and provide protections at least equal to that of the City's adopted critical

area protections, there may be opportunities to tailor the SMP protections in a manner addresses some shoreline property owner concerns as well.

c. Public Access. While the guidelines are fairly prescriptive if adopting minimum requirements, the City can development a public access plan creating affirmative opportunities to create public access. This can create more latitude in developing public access standards.

73) David/Ecology: You mentioned the Sammamish Setback, but didn't mention the Redmond SMP. Can you comment on the Remond SMP?

Sent to Ecology on February 11, 2010 for response. Mr. Radabaugh's response is as follows:

The adopted and Ecology approved Redmond SMP requires a minimum 35 foot setback on Lake Sammamish. The setback may be reduced to 20 feet if 50 percent of the 20 foot setback is revegetated. New development and reconstruction that involves greater than 50 percent of the building value also require revegetation. On the Sammamish River, Bear Creek, and Evans Creek, a 150 foot buffer, and in some cases and additional 50 foot outer buffer is required. The SMP contains provisions for buffer reduction in conjunction with city-sponsored restoration projects. A certain degree of clearing can also be allowed in outer river buffers.

The question is sometimes asked whether another jurisdiction can simply adopt Redmond's shoreline protection standards and be done. Shoreline protection standards need to be based on local conditions. In every case the shoreline protections must be shown to be able to achieve no net loss of ecological function and provide protections at least equal to that of the jurisdiction's adopted critical area protections.

74) Steve/King County Noxious Weeds: Phrapmites Austrialiences is exclusively used in Europe for storm surface water treatment. Why can't they be use here? Equally Polygonum also has pollution conversion capabilities along ditches of roads.

Sent to King County Noxious Weeds on February 11, 2010 for response. No response has been received to date.

75) When will you start monitoring zoo and phytoplanktons in lakes for the purpose to determine the health of their bio systems?

The City has no plan to start monitoring zoo and phytoplanktons.

76) Jean/King County: Could you cite any evidence or study that demonstrates how a 25 feet set back planted with natural grasses behinfd bulk head walls enhances salmon recovery? Bulk heads in Newport Shores are 6 to 8 feet high. How would you deal with these canals?

Sent to King County on February 11, 2010 for response. No response has been received to date.

77) David/Ecology: How can DOE say at least as protective as existing CAO, when Bellevue adopted a CAO not under the SMP process? Doesn't that mean Bellevue has not yet properly adopted a CAO?

Sent to Ecology on February 11, 2010 for response. Mr. Radabaugh's response is as follows:

WAC 173-26-221(2)(a)(ii) requires that shoreline master programs must provide for protection of critical areas in shoreline jurisdiction that will "provide a level of protection to critical areas within the shoreline area that is at least equal to that provided by the local governments critical area regulations adopted pursuant to the Growth Management Act for comparable areas other than shorelines." This section is applicable regardless of whether a jurisdiction has previously adopted critical area protections in its SMP or not.

78) Planning Commission: You asked Mr. Paine for scientific proof regarding the SMP. For 3 weeks we listened to scientists and tonight Mr. Paine stated that ultimately Ecology's rules control and that there is an underlying assumption that those rules are based on science and negotiation on policy. Mr. Paine, can you show us this so-called scientific experiment and proof?

Please see http://www.ecy.wa.gov/programs/sea/shorelines/smp/faqs.html#Scientific%20Information for information provided by the Washington State Department of Ecology on the use of science in the Shoreline Master Program Update process. The City and the City's consultant have followed the guidance provided by the Department of Ecology. More science background can be accessed on the City's website at http://www.bellevuewa.gov/shoreling-science-documents.htm .

79) Steve/King County Noxious Weeds: Since dense vegetation has decreased the available DO, wouldn't an open shoreline be better than an area of heavy noxious weeds on the shoreline in the H20?

Sent to King County Noxious Weeds on February 11, 2010 for response. No response has been received to date.

80) David/Ecology: I have read DOE guidelines which state that single family residential is a "preferred use". What is meant by preferred? Or what doe that mean to you.

Sent to Ecology on February 11, 2010 for response. Mr. Radabaugh's response is as follows:

Preferred uses include water-dependent and water-related uses. There is no intrinsic need that requires that single family residential development be located on a shoreline. The Guidelines do state that we should "locate single-family residential uses where they are appropriate and can be developed without significant impact to ecological functions or displacement of water-dependent uses" (WAC 173-26-1201(2)(d)(iv)).

Single family residential is a "priority use when developed in a manner consistent with control of pollution and prevention of damage to the natural environment" (WAC 173-26-142(3)(j)). Single family development is the most common land use along Bellevue's shorelines. An important issue that should be considered by Bellevue in development of its SMP update is how to accommodate single family development in a manner that does control pollution and prevents damage to the natural environment.

81) Derrick/WADNR: Did the Dept of Natural Resources recommend or support the decision by Bellevue to designate the shorelines of Lake Sammamish and Washington as critical areas? And if so why and are all lakeshores in the State Washington considered critical areas?

Sent to WA DNR on February 11, 2010 for response. Mr. Tobas's response is as follows:

The Department of Natural Resources does not have a position on the designation of all shorelines as critical areas by the City of Bellevue, and was not part of the discussions regarding the Critical Areas Ordinance. However, DNR recognizes the importance of shoreline habitat to fish and wildlife. DNR is currently undergoing the process of looking at habitat areas and landscape planning under our proposed habitat conservation plan and supports designating critical habitat for the protection of fish and wildlife.

82) Jean (King County) and Jason (Puget Sound Partnership): You both rank SMP's as #2 in importance. What are you doing to get "buy-in" from shoreline owners who have developed properties?

Sent to King County and Puget Sound Partnership on February 11, 2010 for response. King County has not responded. Mr. Mulvihill-Kuntz responded as follows:

Establishing effective shoreline master programs that identify and guide development in the most appropriate places and protect important environmental resources is critical for recovering Puget Sound. Educating and raising public awareness, especially for shoreline property owners, on the importance of healthy, functioning shorelines to Puget Sound recovery and the role of SMPs in guiding development along shorelines is a crucial aspect of updating shoreline master programs. The Puget Sound Partnership is working with the Department of Ecology as the lead agency to coordinate state agencies' staff and resources to assist local jurisdictions in the SMPs update process and identify education, outreach, and communication needs and opportunities around the Sound. In the Bellevue area, the Partnership supported and assisted Water Resource Inventory Area (WRIA) 8 in putting on the Green Shorelines workshop series in 2009 to engage local government permitting staff, private contractors, shoreline property owners, and the public in discussions of alternatives to hard shorelines (e.g., bulkheads) on lakes Washington and Sammamish and possible incentives that would be helpful to shoreline property owners considering "green" or "soft" shoreline alternatives. The report from this effort will be complete soon. Education and outreach efforts focused on shoreline property owners on both lakes will continue through the summer.

83) Kirk/WDFW: You recommend a 250ft buffer. Who should pay for creating it?

Sent to WDFW on February 11, 2010 for response. Mr. Lakey's response is as follows:

Science recommends a 250 foot buffer; it is in the WDFW Riparian Recommendations in the PHS Section of our web page. Buffer maintenance surrounding any critical area is the responsibility of the land owner. In response to the question who should pay for the destruction of the functions provided by a degraded or inadequate buffer on a parcel owned by an individual? Ultimately we all pay either way.

84) Jacalen Printz/COE: COE has recognized a fixed elevation of the OHWM on Lake Washington since 1929, and on Lake Sammamish since the 1960's. Is the Corps skilled and qualified to identify this physical feature, also known as the vegetated edge?

Sent to the Corps on February 11, 2010 for response. No response has been received to date.

85) Karen Walters/MITFD: Aquaculture. Are you aware of any opportunities for Kokanee restoration on Lake Sammamish?

Sent to MITFD on February 11, 2010 for response. Ms. Walter's response is as follows:

In response to the City's question below, the Muckleshoot Indian Tribe Fisheries Division suggests that the City contact the Washington Department of Fish and Wildlife. They are taking the lead on kokanee restoration activities. Chad Jackson, is the inland Region 4 lead biologist that has been handling Lake Sammamish kokanee issues.