



Memorandum

To: City of Mercer Island Planning Commission
From: Travis Saunders, Planner
Re: July 15, 2009 Shoreline Master Program (SMP) Update Workshop
Date: July 8, 2009

Commissioners and Councilmember Jahncke:

This evening's Shoreline Master Program update workshop contains the following agenda items:

Agenda item 1:

As a continuation of the July 1, 2009 meeting, the Commission will be reviewing shoreline modification standards (WAC 173-26-231) for shoreline stabilization measures (bulkheads/soft shore armoring). A presentation of draft language will be provided by staff. Following the presentation, Commission discussion and deliberation, the Commission's preliminary recommendation is requested for shoreline modification regulations.

Due to the continuation of discussion regarding shoreline stabilization, the packet from June 17, 2009 meeting is necessary for the July 15, 2009 meeting. Please bring the meeting's packet with you. If you need an additional copy, please contact George Steirer, as I will be out of the office. Alternatively, a packet can be found online at: "http://www.mercergov.org/files/6-17-09_PC_Packet.pdf"

During the course of the July 1, 2009 meeting, the Commission requested of staff the following items:

1. Request: Further research of the science behind grated decking within 30 feet waterward of the OHWM. Staff findings: According to Mary Reed, Senior Scientist for the Army Corp of Engineers, the biggest issue is predators; the amount of time it takes for a salmon's eyes to adapt to a change in light is quite long and may be the reason why they avoid going into dark areas. The adjustment to change in light may make it difficult to avoid predators. Ms. Reed also pointed out that the key is that juvenile salmonid behavior is changed and their migration may be longer than normal, which may make it harder to compete with other juveniles once in the ocean. The Corps does not see a reason to reduce or eliminate grating out past 30 or 60 feet. Exhibit A in the Commission's packet is a section from a white paper that discusses shading and ambient light changes. The paper was prepared by Jose Carrasquero, Herrera Environmental Consultants, for the Washington Department of Fish and Wildlife, Department of Ecology, and Department of Transportation.
2. Request: Further research of the science for translucent canopies. Staff findings: The following information is contained within the Army Corps of Engineers RGP application for watercraft lifts in fresh and marine/estuarine waters within the State of Washington: "Project Impact Reduction and Conservation Measures - *While the individual activities described above will have minimal impacts to the aquatic environment, direct, indirect, and cumulative impacts from these structures have not been fully avoided. Salmonids, including juvenile chinook salmon and sub-adult and adult bull trout use the nearshore areas of Puget Sound for feeding, rearing, and/or as a migratory corridor. As small individuals, they stay in shallow waters to avoid large fish predators found in deeper water, and to rear and feed. The watercraft lift structure itself and canopy inhibits light from entering the water. This loss of light reduces the ability of*

aquatic vegetation to grow. This subsequently has an impact on the feeding and rearing habitat of fish. Also, the shadow created by the structures may provide cover for predators of salmonid fish species. Therefore, the amount of shade created by these structures needs to be minimized. Also, because the shallow water habitat is an important habitat feature, structures should be placed in deeper water to minimize impacts to the shallow water habitat. The purpose of these measures is to offset losses to the aquatic environment resulting from direct, indirect, and cumulative impacts of watercraft lifts and canopies. These mitigation measures will restore or create important fish habitat to offset the impact of the project.”

3. Request: A cost comparison between grated decking and traditional decking. Staff findings: The west coast distributor of ThruFlow decking, a commonly used grated decking material, stated that the retail cost for his product is \$6.75 per square foot, and wholesales at \$5.80 per square foot. The cost of wood decking is approximately \$2.79 per square foot (OW Natural Select Wood Decking from Dunn Lumber).

According to a local contractor, the material cost for grated decking is approximately 50% more than lumber decking. The contractor stated that in addition to the cost of grating, the grating requires a stringer every 16” versus 36” for lumber, adding additional material and labor costs. In addition, the contractor stated that installation of grated decking is more labor intensive, since the panels interlock.

A second contractor, Dave Douglas of Waterfront Construction, estimated that decking replacement from wood to grating averages \$40 per square foot, including disposal, labor, and materials. Mr. Douglas also stated that grated decking requires no maintenance, which is a long term savings. Both contractors acknowledged that grating is already required by the Washington State Department of Fish and Wildlife and the Army Corps of Engineers.

4. Request: Further research regarding the terms “if feasible” and “where practicable”. Staff findings: The City Attorney will provide an oral summary at the July 15, 2009 meeting.
5. Request: Staff to provide a strike and delete of the existing Shoreline Master Program provisions for shoreline stabilization structures by incorporating the applicable language in WA 173-26. Staff findings: A copy of the request has been provided in Exhibit B.

Itemized below are exhibits in for the July 15, 2009 Planning Commission meeting:

Exhibit A: Excerpt from Over-Water Structures: Freshwater Issues, prepared by Jose Carrasquero

Exhibit B: Draft language for shoreline stabilization measures

Should you have questions regarding the materials or the update process, in my absence, feel free to contact George Steirer.