Memorandum for Record 29 August 2011

SUBJECT: DESCHUTES RIVER ESTUARY RESTORATION PROJECT (AKA CAPITOL LAKE DREDGING)

1. One of the proposed projects in the Puget Sound Nearshore Restoration Program is the restoration of the Deschutes River Estuary by dredging Capitol Lake and removing the dam at the outlet of the lake to Budd Inlet. Included in the project is proposed dredging of up to 500,000 cubic yards of sediment, and re-using the material to shape the estuary and restore habitat. Capitol Lake dredging was proposed in 1995 and 2000 and raised some concerns regarding sediment quality. These concerns are detailed below.

2. Capitol Lake was created in 1951 with the construction of Capitol Dam, which separated the Deschutes River from Budd Inlet. Since that time, the lake has gradually filled with sediment, so that its flood storage capacity is inadequate, and the lake has water quality issues and noxious weed concerns.

3. In 1995, the Washington Department of General Administration proposed dredging 30,000 - 35,000 cubic yards of sediment from Capitol Lake. A sampling an analysis plan was approved by the DMMP agencies and samples were collected on September 20, 1995. There were exceedances of both PSDDA screening levels and maximum levels. Benzoic acid exceeded the ML for DMMU 3, 8 and 9 at 2,700 ug/kg, 1900 ug/kg and 1700 ug/kg respectively. The ML at that time for benzoic acid was 690 ug/kg. There were also SL exceedances for phenol and benzyl alcohol for DMMUs 3, 8 and 9. The Department proposed additional testing to identify and isolate the source of contamination, but the studies were never completed.

4. The Washington Department of General Administration submitted a second proposal for dredging 70,000 cubic yards of sediment from Capitol Lake, as part of the Capitol Lake 2000 Adaptive Management Plan. The DMMP agencies reviewed and approved the SAP for a partial characterization, but concerns were raised regarding the presence of purple loosestrife (a Class B noxious weed) in the lake. It was determined that purple loosestrife seed would remain viable in marine waters for up to three weeks. The Anderson-Ketron disposal site is adjacent to the Nisqually Wildlife Refuge, and there was concern that purple loosestrife seed could impact the Refuge. For this reason, the agencies determined that any open-water disposal of the dredged material from Capitol Lake would need to be taken to the Commencement Bay Disposal Site, away from any areas that could be impacted by purple loosestrife. There was no further contact from the Department of General Administration following the DMMP response.

5. The Deschutes Estuary Restoration Project was identified in 2011 as one of 36 possible actions as part of the Puget Sound Nearshore Environmental Restoration program. The DMMP agencies raised the issue of potential contamination from benzoic acid and benzyl

alcohol, as well as the noxious weed issue. The agencies received a copy of the 2000 sampling data, and a copy of the Capitol Lake Alternatives Analysis (2008) by Moffatt and Nichol as part of the project review process. The 2000 testing showed no exceedances of DMMP screening levels, and met DMMP QA/QC guidelines.

6. Because the material is going to be re-used within the same water body, there is less concern regarding the transmission of purple loosestrife seed. At the same time, measures will be taken to monitor and ensure that this noxious weed is not spread by the restoration project.

7. The DMMP agencies have no concerns regarding sediment quality that would compromise the project at this early stage (10 percent) of the design process. The information available is sufficient to indicate that the material is suitable for beneficial re-use as part of the restoration project as it is currently designed.

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