CENWS-OD-TS-DMMO **November 21, 2000**

MEMORANDUM FOR: Record

SUBJECT: FY 2000 Everett Harbor & Snohomish River Federal Maintenance Dredging (Public Notice CENPS-OP-TS-NS-99)

1) **Introduction.** Corps manager of the subject project, Hiram Arden, has requested consideration of two issues on the material for this year's dredging. The subject Public Notice, dated May 1997, is a multi-year PN for dredging of the Lower Snohomish River from FY 1997-2001. During a DMMP conference call on June 15, 2000, the issues were discussed and agreement reached that the requests should be detailed in a memo. Tentative agreement with the requests was given, pending additional results (now received) and consideration of the written document.

2) **Frequency Determination (1st Request).** The most recent Suitability Determination (November 14, 1996) determined that all dredged material from the lower Snohomish River area was suitable for open-water disposal for five to seven years. Arden requested that this frequency determination remain sufficient for testing purposes for the full seven years, through September 2003. PSDDA frequency guidelines allow multiple dredging projects without additional sampling and testing within the 5-7 year period for low, low-moderate and moderate concern areas, provided the site has already undergone two rounds of testing and has not had any biological testing failures. To insure that the lower Snohomish met these guidelines, the DMMP agencies requested a site history and data summary, provided below.

   a) In the last eight years, one partial characterization (1992) and two full characterizations (1993 and 1996) have been conducted in the project area (Figure 1, between stations 333+50 and 363+00). The PC data supported a downranking of lower Snohomish sediment from moderate to low-moderate for the subsequent FC.

   b) The 1993 full characterization had two exceedances of the 1993 PSDDA SL for anthracene and one exceedance of 4-methylphenol. Anthracene was detected at 140 ug/kg dry weight (SL = 130 ug/kg) and 4-methylphenol at 150 ug/kg (SL = 120ug/kg). (The SLs for both these chemicals were raised in 1998, to 960 ug/kg dry weight and 670 ug/kg dry weight respectively). Bioassays on the three affected DMMU had some performance problems, but no DMMU failed the review. All 462,243 cy of proposed dredged sediment were considered suitable for open-water disposal.

   c) Chemistry data from the 1996 FC on 300,437 cy showed only one SL exceedance, of diethyl phthalate, at 99 ug/kg dry weight (1993 SL = 97; 1998 SL = 1200). By PSDDA policy, bioassays are not run based on a single SL exceedance of phthalates, a common laboratory contaminant. Additional chemical analyses run on archived sediment detected no phthalates, and all of the proposed sediment was considered suitable for open-water disposal.

   d) No spill events or other changed conditions have been reported in the project area. **Based on PSDDA guidelines and the above analysis, the frequency determination can remain in effect through September 2003.** If a "changed condition" (e.g. a spill event) occurs between the date of this memo and the time of dredging, the PSDDA agencies will determine whether additional sampling and testing are required prior to dredging.

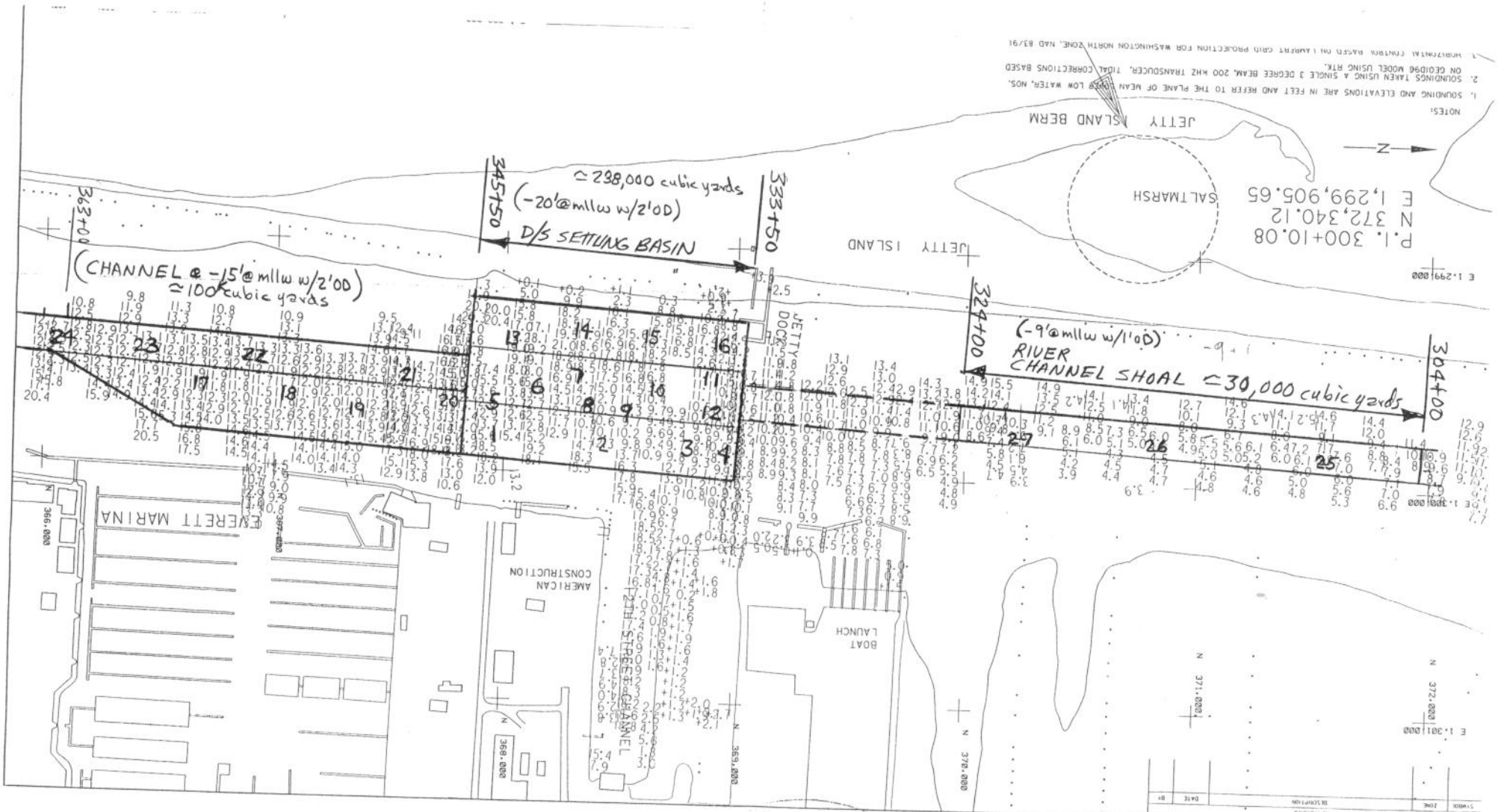
3) **Exclusionary Criteria (2nd Request).** Arden requested that up to 30,000 cy of material not previously tested be allowed to be dredged and disposed in-water for Jetty Island berm nourishment. The area in question is in the downstream channel above the settling basin (Figure 1, between stations 304+00 and 324+00), and was last dredged in conjunction with initial berm construction in 1989. No characterization was performed at that time, but the sediments placed on the berm at the time appeared to be almost exclusively poorly graded sands. Because this area is sandy, upstream of the settling basin, has higher velocities than downstream areas and is above the industrial areas of Everett, Arden asked whether this material could be excluded under Section 404 exclusionary criteria.

Exclusions from testing for coarse-grained dredged material is provided for in national guidelines (40 CFR 230.6(a) and 40 CFR 227.13(b)). In those guidelines, dredged material that meets criteria set forth in the document is considered environmentally acceptable for unconfined aquatic disposal without further testing. Relevant exclusionary criteria for this project is as follows:

> *Dredged material that is composed predominantly of sand, gravel, rock, or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels.*

Agency representatives agreed that the proposed sediments could be excluded under these criteria, provided that grab samples taken in the area of concern verified that sediments were in the expected (primarily sand) range. Three grab samples (#25, 26 and 27 on Figure 1) were taken and analyzed for grain size only. Resulting particle size distributions showed 99.8%, 99.5% and 93.8% sands in the three grab samples. **Based on this analysis, agencies agreed that the area could be excluded from testing requirements and dredged without further testing.**

Lauran Cole Warner
Biologist, Dredged Material Management Office



CONDITIONS MAY 2000 SCALE: 1" = 400'