DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

REPLY TO
ATTENTION OF

July 25, 2006

Operations Division/Technical Support Branch
Dredged Material Management Office

Aaron Bosworth
Watershed Company
1410 Market Street
Kirkland, WA 98033

Re: Bebee Creek Habitat Project
Lake Chelan Sportsman's Assoiciation and
Washington Department of fish and Wildlife

Volume estimated: 10,000 cy

Dear Mr.Bosworth:

The Dredged Material Management Program (DMMP) Agencies (Corps of Engineers, Environmental Protection Agency, Washington State Department of Ecology, and Department of Natural Resources) have reviewed the Chemical data report submitted to us on June 21, 2006, summarizing results of organochlorine pesticides and various metals, and sediment conventionals. The DMMP agencies have considered these results in light of the proposed project discussed in the JARPA and have concurred that we have significant concerns about the project as currently proposed which are summarized below.

1. The letter report summarizes soil samples collected at six locations along the proposed creek bed area at depths of 0-1 feet, 1-2 feet, 2-3 feet, and 3-4 feet with a stainless steel hand auger. In general, the results were deemed acceptable by the DMMP agencies for decision-making using best-professional-judgment.

2. The chemical results showed in general that metal concentrations and organochlorine pesticides other than total DDT and Arsenic were below DMMP regulatory action levels. However, elevated concentrations of total DDT were found in the entire surface soil layer (0-1 foot layer) ranging from 85 to 1,075 ug/kg (ppb). These concentrations exceed both the Dredged Material Management Program Bioaccumulation Trigger (50 ppb) and Maximum Level Trigger (69 ppb). Total DDT concentrations drop-off significantly at the 1-2 ft level, with only two of the six sample locations exhibiting a Screening level (SL) exceedance (6.9 ppb) for DDT, and one SL exceedance of Arsenic (see **Table 1**).

3. You have indicated verbally that the top 1.5 feet of soil excavated from the proposed creek placement area would not be reused in the creek habitat construction but would be disposed elsewhere on the property. However, we are concerned that any disposal location for these soils must be removed and isolated from the proposed creek habitat. This is necessary to minimize the erosion of these soils (and their DDT load) from adjacent areas into the restored creek area. Also, given that DDT residues are still present at two locations within the 1-2 foot samples (Stations DP-3 and DP-5) and Arsenic concentrations are noted at this depth horizon at one location (DP-6), we feel the entire 0-2 foot layer should not be reused in the habitat construction. It is not clear

where the clean, fine-grained sediment to be used at the bottom of the new stream channel would come from in the existing soil profile, since the top 2 feet is generally contaminated with DDT.

4. Moreover, we are concerned that the proposed stream buffer of 20 feet around the creek would be insufficient to prevent adjacent DDT-contaminated soils from being washed down into the stream habitat during storm/rain events. Since the top 2 feet of surface soil in this area is contaminated with DDT, the DMMP agencies are concerned that a 20 feet buffer may not be sufficient to protect the creek habitat from recontamination. If widespread excavation is occurring, there is likely to be erosion unless the soil is immediately stabilized by the use of jute mats, or hydro-seeding, etc. If the erosion extends beyong the buffer, DDT-laden soils could become exposed and enter storm or snow runoff unless the soil is completely excavated to a depth below the DDT contamination layer (e.g. 0-2 feet).

5. Given the high DDT levels observed at all six surface sample locations within the proposed stream excavation area, it is necessary to excavate the entire surface sediment layer down to 2 feet and construct some kind of physical barrier in portions of the upland soils outside the excavation area to prevent DDT contaminated soils from washing down into the buffer area and creek habitat. The size of the buffer necessary to protect the stream from eroding soils from the upland areas adjacent to the stream needs to be re-evaluated. The DMMP agencies are not convinced that a 20 foot buffer is sufficient, and a larger buffer (e.g. 50 feet) may be required to protect the stream habitat.

Please call me (206-764-3768) if you have any questions about our concerns based on our review of these sediment quality data.

Sincerely,

David R. Kendall, Ph.D.
Chief, Dredged Material Management Office

Enclosures
Copies Furnished:

Debbie Knaub, Corps Regulatory Project Manager
Peter Leon, DNR
Erika Hoffman, EPA
Helen Pressley, Ecology
Loree Randall, Ecology
DMMO file

Table 1. Total DDT concentrations measured within the Beebe Creek Habitat Project

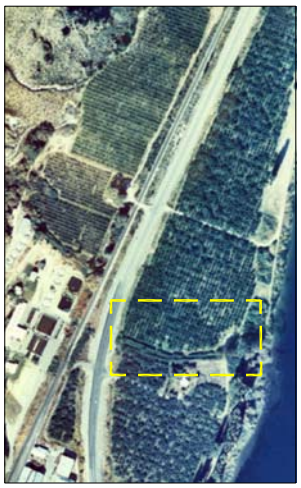
Depth	DP-1	DP-2	DP-3	DP-4	DP-5	DP-6
A: 0-1 ft	**111**	**159.5**	**85**	**116**	**1075**	**604.7**
B: 1-2 ft	2.2 u	2.2 u	**28**	5.1	**8.8**	4.1*
C: 2-3 ft	A	A	A	A	A	A
D: 3-4 ft	A	A	A	A	A	A

*** exceeds Arsenic SL: 57 ppm: quantitated at 64 ppm**

A = Archived

exceeds total DDT BT/ML: 50/69 ppb

exceeds total DDT SL: 6.9 ppb



AERIAL PHOTO OF SITE

REMOVE 2' SOIL FROM SURFACE AND REPLACE WITH CLEAN TOPSOIL TO GRADE

50'

LIMIT OF WORK

PROPOSED STREAM CENTERLINE

WETLAND

EXISTING STREAM CENTERLINE

OHWM OF EXISTING STREAM

REVISED ON 7-31-2006

OVERALL PLAN

SCALE: 1" = 120' - 0"

0 60' 120' 240'

PURPOSE: FISH & WILDLIFE ENHANCEMENT DATUM: ADJACENT PROPERTY OWNERS: 1. CHELAN FISH HATCHERY (75 FISH HATCHERY ROAD)	APPLICANT: LAKE CHELAN SPORTMAN'S ASSOCIATION & WDFW REFERENCE #: 2006- SITE LOCATION ADDRESS: ALONG SR-97 & NORTH OF BEEBE BRIDGE	PROPOSED: CREATE ~1,800 FT NEW CHANNEL FOR FISH SPAWNING & REARING. IMPROVE RIPARIAN HABITAT ALONG THE EXISTING CREEK. IN: BEEBE SPRINGS CREEK AT: CHELAN COUNTY: CHELAN SHEET: 2 OF 26 DATE: MARCH 23, 2006