NPSEM-DB-CI

20 June 1978

MEMO FOR: RECORD

SUBJECT: Field Review of Skagit River Levees with A-E, Entranco, Inc.

- 1. On Friday, 16 June 1978, a field review of the lower Skagit River Levees was made to familiarize Entranco, Inc., with the levee system prior to their beginning design work. Attending were John Bannon, John King, and Gary Kirchner of Entranco Engineers; Gary Henderson of Roger Love Associates; and Neal Hanson, Bill McKinley, Bob Newbill, and Clyde lump of the Corps of Engineers.
- 2. We agreed to provide a full set of 9 x 9 aerial photos of the entire Skagit Levee Project to the A-E and also agreed to provide a description of known borrow sources. Regarding the railroad bridge above Millt wn, the A-E will evaluate the need for the bridge before redesigning it. We also agreed to find out where to put waste material. The A-E was requested to make a brief two-day review of the recreation potential of the lower Skagit River Levees and make recommendations to the Corps. In answer to a question, we stated the velocities on lower Skagit River to be in the range of 6-8 fps.
- 3. We found there is a need to establish new field survey control in some areas. Other questions regarding surveys are:
 - a. Have other surveys been field staked?
 - b. How are soundings tied to survey line?
 - c. How are cross sections tied to survey line?
 - d. Has a level line been run?

-1794 -156

- 4. Other agreements with the A-E are:
- a. Backwater profiles will be updated for Phase I and Phase I studies in the next few weeks and all backwaters will be Corps of Engineers responsibility.
- b. Our foundation and materials report will include logs of explorations, a description of the typical sections for levee construction, and a tentative layout map showing borrow locations.

NPSEN-DB-CI 20 June 1978 SUBJECT: Field Review of Skagit River Levees with A-E, Entranco, Inc.

- c. The A-E will study alternative levee locations when disruption of existing roads and utilities is going to occur. He will then make recommendations regarding least cost alternative, and the Corps will coordinate with the local sponsor to assure his concurrence in his (local sponsor's) costs regarding these studies.
- d. The initial Phase I scope of work by the A-E need not be broken down into local sponsor's cost and Federal cost. The follow-on Phase I and Phase II work will, however, need to be broken down into these categories.
- e. It will be necessary for the A-E to investigate the necessity of riprap protection where the levee toe infringes on the channel or overlaps into the toe of the existing riverbank. Studies may be nécessary to compare reaches of levee with slope protection (riprap) versus moving levee landward on a setback alinement.
- 5. At the close of the field meeting, we talked for a few minutes about the Skagit River Levees and the A-E's design effort. We agreed that the Corps would attempt to work out and coordinate a schedule Monday, and we would call the A-E to discuss this and answer any other problems that the A-E might have.
- 6. In response to a question during the field investigation, I called Forrest Brooks, Study Manager, and asked about an EIS for this project. He told me preparation of one was beginning, since they usually begon when the Design Memorandum began.

CLYDE JUMP Civil Design Section

cc:

Des Br (Monson)

Des Br (Cook/Woodard)

Proj Plug Sec (Brooks/McKinley

F&M Br (Newbill)

Civ Des Sec (Hanson/Jump)