DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

REPLY TO
ATTENTION OF

NOV 2 3 2011

CECW-NWD

MEMORANDUM FOR Commander, Northwestern Division (CENWD-PDD)

SUBJECT: Skagit River Flood Risk Management General Investigation Study, NWS 2011 Response to HQUSACE Comments to 2009 Feasibility Scoping Meeting (FSM) Read Ahead Packet

1. Reference CENWD-PDD memorandum (undated), subject as above.

2. The subject document has undergone review by Headquarters USACE (enclosure). Based on the District's work since the June 2011 reset meeting and the findings of the Headquarters review team, I recommend that the District schedule a FSM.

3. A revised FSM read ahead package is not required; however, to facilitate a successful FSM the District response to these comments should be provided to Headquarters no less than five working days (preferably 10 or more) in advance of the FSM.

4. HQUSACE would be pleased to participate in vertical team discussions as you deem necessary in preparation for the FSM. Any questions should be directed to Ms. Lisa Fleming, Deputy Chief, Civil Works, Northwestern Division Regional Integration Team at (202) 761-4605.

FOR THE COMMANDER

STACEY K. HIRATA, P.E., SES
Chief, Northwestern Division
Regional Integration Team
Directorate of Civil Works

Encl.

HQUSACE REVIEW COMMENTS ON
SKAGIT RIVER FLOOD RISK MANAGEMENT GENERAL INVESTIGATION STUDY,
SEPTEMBER 2011 SUBMITTAL FROM SEATTLE DISTRICT FOR THE
FEASIBILITY SCOPING MEETING (FSM) READ AHEAD PACKET

23 November 2011

GENERAL

1. The Review Team concurs that a FSM should be scheduled.

2. The Review Team suggests the FSM briefing be organized to address the following topics in a clear, concise, and comprehensive manner (such that the 2009 and 2011 documents are integrated):

   - Identified problems, needs, and opportunities;
   - Specific planning objectives and constraints;
   - Existing Conditions;
   - Future Without Project Conditions (including assumptions);
   - Management measures;
   - Screening criteria;
   - Results of preliminary coordination and public involvement (including a summary of comments received in response to July 2011 Notice of Intent); and,
   - Future study tasks (including Peer Review, Model Certification, Value Engineering, and Sea Level Rise).

3. Per the District's 1 September 2011 response, the Environmental, Hydrology and Hydraulics (H&H), and Economics Existing Conditions and Future Without Project Condition Reports should be completed and provided prior to the FSM. Please work with the NWD RIT to schedule a vertical team phone call to discuss schedule and level of effort for these reports.

4. The FSM should include a discussion of how the 2009 and 2011 reports can be expediently compiled into a single document for use as plan formulation proceeds.

SPECIFIC COMMENTS ON THE SEPTEMBER 2011 SUBMITTAL

These comments are for the PDT's consideration as the study moves forward. It would be useful to address these comments during the FSM.

1. Response to HQ Comments (Enclosure 2 of the September 2011 submittal).

   1.a. Without Project Conditions Report (Comment 1.c.). The H&H setting in the Future Without Project (FWOP) condition and the Environmental FWOP need to be reconciled. HQ anticipates this will occur when the updated H&H FWOP report is completed. The August 2009 version of the H&H FWOP states that climate change has not been modeled or incorporated, whereas the Environmental FWOP (Attachment 2a, Section IV) identifies the potential for changes in precipitation patterns and streamflow regimes. Currently this has two differing statements about the future H&H setting in the basin. The team should ensure that the H&H setting for this project is coordinated and consistent through the documentation and during the study and plan formulation. HQ requests that the team be

prepared to qualitatively summarize projected impacts of regional climate change on the climatological and H&H setting of the project.

1.b. Sea Level Rise (Comment 1.d.). The District will need to comply with EC 1165-2-212 as the study progresses. The District should be prepared to evaluate the resiliency of the tentatively selected plan under various sea level rise scenarios. Furthermore, they should more fully describe tidal effects under the Future Without Project and Future With Project conditions.

1.c. Model Certification (Comment 7). The District response is adequate. They should continue their efforts to comply with the current guidance regarding model certification, as contained in EC 1105-2-412.

1.d. Value Engineering (Comment 10). The District response is adequate. The Review Team suggests that VE activities be conducted earlier in the planning process, specifically as part of the Alternative Formulation process to help identify the Tentatively Selected Plan. VE in the feasibility phase should focus on the formulation process (have we considered all the alternatives, have we considered the sponsors preferences, etc.) not just ensuring the Corps develops that most cost effective plan(s).

2. Identified Measures (Attachment 2c). The 2011 submittal details 28 measures which will be used in the initial array of plan formulation. When describing these measures and the results of preliminary plan formulation and screening at the FSM, it would be beneficial for the District to identify the following: which measures are independent and can be part of any plan; how individual measures can or cannot be combined; and, which measures would require a tradeoff between other measures. Also, to the extent possible at the time of the FSM, the District should describe the approaches that will be used to make decisions when tradeoffs are needed.

3. Measure 38 Bridge Corridor Modifications (Attachment 2c, page A-48). This report indicates that bridge modifications will be considered. The District should give consideration to any advance bridge replacement benefits in addition to flood damage reduction benefits in order to fully account for the NED considerations with these type measures. See IWR Report 88-R-2 Urban Flood Damage Manual, page XI-29 for an example. These benefits should also be considered when appropriate for other measures under consideration (i.e., measures 7 and 8).

4. Structure Inventory (Attachment 2d). Tables 5-6 and 5-7 show a total of 14,183 residential (12,544) and non-residential (1,639) structures in the floodplain based on inventories developed from Corps base maps prepared in 2000. However, Tables 5-8 and 5-9 show a total of 13,115 residential (11,841) and non-residential (1,274) structures being damaged by a 500-year event based on the 2000 inventory. Presumably the original mapping used to conduct the inventory was for about a 500-year frequency floodplain. This inconsistency raises questions regarding the difference in data and whether the damages are being estimated correctly. The discrepancy should be explained or any necessary changes made to assure that consistent floodplain information is being used and presented in the analysis.

5. Interagency Involvement (Attachment 2e). The District should be prepared to discuss and document during the FSM how other Federal, State and local agencies will be involved and engaged as this study moves forward, as well as how interested Tribes will be kept informed and engaged.

6. Public Participation (Attachment 2e, Section 9). The District should be prepared to provide additional detail during the FSM on the topic of public involvement during the plan formulation and EIS process. Such discussion should include results of initial NEPA scoping, the team's initial assessment of issues that the public may raise and, if available, more in-depth information on the timing and methods of public participation.

7. Skagit River Basin Narrative (Enclosure 3, page 5). The report explains that population within Skagit County is expected to increase by almost 86 percent within the period of analysis. It would be helpful if this would be further explained – what is the basis for this substantial increase?

8. Hydraulic Modeling (Enclosure 5). The Review Team stands ready to review hydraulic modeling products.