

Subject: System-wide Improvement Framework (SWIF) Plan, Nooksack River and Whatcom County Flood Control District

Below are my comments on the subject SWIF request.

- 1) Identification of levee system or systems covered by the system-wide improvement framework, including system name and identification number as listed in the National Levee Database. SWIF identifies the Whatcom County Flood Control Zone District (WCFCZD) as the primary public sponsor. The SWIF covers 33 levee segments and 14 levee systems. SWIF identifies the name and NLD number for each system and segment covered by the SWIF except it is spread across 30 pages. Systems were rated both minimally acceptable and unacceptable per in 2010 and again in 2015 inspection and those rated unacceptable placed inactive status. SWIF provides a description and map of each levee system showing the floodplain. Levees are primarily agriculture and critical infrastructure is identified on the maps. **This objective is not met. Clarify that all levees are non-federal. Clarify inspection dates and whether routine or periodic. Clarify which levees have a population at risk and how many people there are there. Please provide one consolidated table reflecting all levees covered in the SWIF with system and segment number at the beginning of the SWIF as you have for each individual system. This will assist in processing the request. The maps reflect floodplains and not the leveed areas. Please explain the difference between two or designate the leveed area. Label and reference in the beginning of the document the summary of 2015 continuing eligibility inspections in the appendices.**
- 2) Description of proposed levee improvement and justification of how the SWIF routine optimizes flood risk reduction. SWIF tabulates general listing of deficiencies from the 2015 inspection and shows which deficiency categories were rated U and M for the levee system on table 3.2. Good list of accomplishments along with a general plan to complete corrective actions that remain unfinished. An overall estimated cost for the capital improvement projects is indicated as \$15.2 million and broken out by levee system and will be funded from a variety of sources to include tax assessments, state funds, local cities and other. The cost to address other deficiencies is not clear. SWIF does reflect that deficiency corrective actions and has been generally prioritized according to the risk they pose and interim guidance. Intent is for the sponsor to evaluate all of the levee systems and concentrate corrective actions on the system and deficiencies posing the highest risk first. **This SWIF objective is not met. Please clarify the estimated cost to correct deficiencies other than the capital improvement projects. If they are maintenance then indicate the estimated cost for maintenance each year and the duration to provide an approximate cost. Appendix F (unlabeled) reflects 2016 activities, but no estimated cost. What is the status of these activities? Are they completed and what is the plan for 2017?**
- 3) A plan and schedule for interagency collaboration including environmental and/or Tribal consultation if applicable, in the implementation of the SWIF. The SWIF was produced by an Interagency Coordination Team (ICT) provides a good list of collaborating partners and indicates their respective roles. ICT met six times beginning in Oct 2013 and it was determined that most of the resolution projects would not require further collaboration with all agencies indicated. Potentially endangered species in the area are identified and ESA coordination as needed. An overall schedule for completing projects is provided. Environmental and Tribal issues have been addressed with the Nooksack Indian Tribe participation on the ICT and other environmental groups. **This objective is met.**
- 4) Documentation of specific agreements, such as project specific agreements, between levee sponsors and USACE or other agencies/organizations related to implementation of levee modifications, under Section 408 or other overlapping USACE policies and studies, applicable to the levee systems identified in the system-wide improvement framework. SWIF discusses the permitting process with state resource agencies and WCFCZD has received a generalized 5 year permit covering the repairs identified. No section 408 as these are non-fed levees. Section 401/404 and section 10 permits have been identified as required for capital improvement projects. **This objective is met.**

- 5) Documentation of any regional considerations, approaches, and tools to be used during implementation of the system-wide improvement framework. Regional considerations have been addressed via the ICT and stakeholder meetings. **This objective is met.**

- 6) Description of interim maintenance standards that will be implemented during the SWIF to mitigate conditions of uncorrected "Unacceptable inspection items. SWIF discusses interim stabilization measures. SWIF discusses continuous monitoring of deficiencies identified in USACE inspections. Sponsor conducts biannual inspections to monitor existing deficiencies and identify any new issues. Major repairs are prioritized, plans developed and budgeted for each levee system and tabulated on Table 4.1. Other deficiencies are handled via routine maintenance. Temporary repairs are implemented to prevent degradation. **This objective is met.**

- 7) IRRM plan, including risk communication plan that addresses the risk to life increased by system-wide deficiencies. SWIF indicates the potential modes of failure and proposed interim risk reduction measures to include monitoring, sand bagging, and additional rip rap for erosion. Materials, equipment and contractors are available for emergency response. The county participates in FEMA's community rating system. SWIF states the public has been notified of levee condition. Email contact list is also maintained for emergency notification. Further the WCFCZD monitors USGS stream gaging stations and has trigger points for flood stage progression. **This objective is adequately met. Please clarify how the public has been notified of flood hazard and when.**

- 8) Schedules and milestones that will be used to monitor progress and to determine continued eligibility for P.L. 84-99 rehabilitation assistance while the SWIF is being implemented. Key milestones activities for near term activities are described in paragraph 4.4 with a plan to complete all capital improvement work by December 2026. The corrective action plan on page 70 does not reflect intermediate dates and is not clear when maintenance related deficiencies will be completed. WCFCZD will conduct biennial reviews and provide progress reports to USACE and update plan as needed to maintain actual schedule. **This objective is not met. Provide estimated schedule for correction of maintenance related deficiencies.**

- 9) For those levee systems shown as accredited on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map that are part of the SWIF, demonstration that FEMA has been informed that these levee systems with "Unacceptable" inspection items are being addressed in a system-wide improvement framework. SWIF states none of the systems are eligible for FEMA NFIP accreditation and therefore no further notification is required. **This objective is met.**

V/r,

Mike