Skagit River General Investigation
Preliminary Alternatives

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U.S. Army Corps of Engineers, Seattle District
April 16, 2012. Flood Control Zone District Advisory Committee Meeting.
Skagit River General Investigation
Problem

- Problem: The Skagit River Basin is subject to rain floods and related snowmelt runoff flooding that typically occur from October – March. This flooding results in damages to infrastructure; residential, commercial and industrial structures; agricultural areas; and is a threat to life safety. Existing flood control systems, including locally owned levees and flood control storage in non-Federal hydropower projects, provides a limited level of flood risk management to developed areas that is not acceptable to the local communities in the Basin.
Opportunity and Objectives

- **Opportunity**: Reduce flood risk and life/safety risk in the Skagit River Basin from overland flow resulting from October – March rain floods and related snowmelt floods.
  
  **Objective**: Reduce flood damages in the Skagit River Basin over the 50 year project life.

  **Objective**: Reduce threat to life safety in the Skagit River Basin over the 50 year project life.
Study Schedule

- Upcoming milestones
  - Public Outreach on Preliminary Alternatives, April-May 2012
    - Public Workshop on Preliminary Alternatives, May 7th.
  - Public Outreach on Final Alternatives and Tentatively Selected Plan (March 2013).
- Future Milestones
  - Public Outreach on Recommended Plan, March 2014
  - Formal Public Comment Period on draft Integrated Feasibility Report and Environmental Impact Statement per NEPA requirements, January 2015
Measures and Alternatives

- Measures are strategies that decrease flood risk for a specific location. Alone, they cannot address basin-wide flooding problems.
  - Levees/floodwalls
  - Operational modifications Upper and Lower Baker Dams
  - Bypasses
  - Non-structural
  - Bridge modification

- Alternatives are groupings of measures that can address basin wide flooding problems.
Alternatives Formulation Process

- Preliminary alternatives are conceptual designs.
- The Alternatives Formulation Process is a dynamic process.
  - Over the next year, the study team will refine the alternatives based on considerations of:
    - Hydraulic analysis
    - Economic analysis
    - Environmental analysis
    - Federal, state, and local laws
    - Public input
    - Local, state, and federal agency input
- The preliminary alternatives presented today are likely to change as they are refined through the alternative formulation process.
Alternatives Formulation Process: Evaluation Criteria

- Completeness
- Effectiveness
- Efficiency
- Acceptability
Preliminary Alternative 1: No Action

- Per USACE planning guidance, the No Action Alternative was evaluated.
- The No Action Alternative will not achieve the study objectives and will not be brought forward for further consideration as the recommended plan.
Alternative 2: Non-Structural and Dam Modifications
Preliminary Alternative 3: Joe Leary Slough Bypass or Floodway
Preliminary Alternative 4: Swinomish Bypass or Floodway
Preliminary Alternative 5: Urban Area Protection
Skagit River General Investigation
Preliminary Alternative 6
System-wide Levee Setbacks

LEGEND
City Extents
Population
0 - 1200
1201 - 7500
7501 - 25100
Points of Interest
Hospital
Water Treatment Plant
Wastewater Treatment Plant
Existing Levees
Measures
Mt. Vernon Floodwall
New Levee (Induced Flooding)
New Levee
Setback Levee
Bridge Modification
Bypass Channel
Nonstructural
Other
DAM OPERATIONS MODIFICATIONS

BUILDING STRONG®
Preliminary Alternative 6: System-wide Levee Setbacks
Preliminary Alternative 6: System-wide Levee Setbacks
Comments?

- Please fill out a comment card.
- Contact:
  Dan Johnson, USACE
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  (206) 764-3423
- Reminder: Public Workshop
  May 7, 2012. 4:00 p.m. – 6:00 p.m.
  Skagit County Administrative Building
  Commissioner’s Hearing Room
  1800 Continental Place
  Mount Vernon, WA 98273