

**Skagit CFHMP**  
**Document C-1**  
**PROJECT SCREENING CRITERIA FOR ADVISORY**  
**COMMITTEE CONSIDERATION**

At its December 15, 2008 meeting, the Skagit County FCZD Advisory Committee requested input on project screening criteria to enable the Advisory Committee to screen the flood measures currently under consideration by the Corps of Engineers. The Advisory Committee requested input from three sources:

- FCZD Technical Committees
- The 2000-2001 Flood Risk Management Working Group
- Corps of Engineers evaluation criteria

This document presents input for the first two sources; Corps of Engineers evaluation criteria will be provided separately.

### **TECHNICAL COMMITTEE INPUT**

The following assignment was provided to the three technical committees – environmental, land use, and dike and drainage district:

The Advisory Committee intends to apply a two-step process for choosing projects –

- The first level is a screening of the projects/measures to narrow the list to a more workable number
- The second level is using criteria to decide what project/measure or combined/package projects make sense to recommend

With an understanding of the two levels of criteria, each Technical Committee should look at the criteria they proposed, as well as any other criteria, and develop recommended screening criteria or first level criteria that can be used by the Advisory Committee at their January meeting (January 20<sup>th</sup>). The Technical Committee should additionally consider whether or not there are any “fatal flaw” criteria that should be applied at the screening phase. It is intended that the Advisory Committee will develop screening criteria from Technical Committee input and begin the process at their January meeting of starting to narrow the Skagit GI measures and later any projects recommended in the CFHMP.

### **Dike and Drainage District Technical Committee Screening Criteria**

**As compiled by members at January 6, 2009 meeting:**

#### **First Tier – Fatal Flaw criteria**

1. Does the project maintain or improve Public Safety and critical infrastructure protection when compared to existing flood risk?
  - a. Reduce the potential for levee failures?
  - b. Increase conveyance efficiency of the existing levee system?
  - c. Create a greater risk of catastrophic failure due to inadequate interior drainage?

2. Can the project be implemented without increasing the flood risk up and downstream of the project area? If no, can the increased risk be mitigated?
3. Can the project maintenance and operations be sustained locally?
4. "Will the project adversely impact soils and drainage in agricultural resource lands."

**Second Tier – Design criteria**

5. Does the use of local vs Corps hydrology cause a significant difference in project effectiveness?
6. Does the project reduce peak flow?
  - a. Increase / maximize conveyance and reduce the water surface elevation (WSE) throughout project location?
  - b. Increase or decrease the WSE and or flood risk upstream or downstream of project location?
  - c. Increase off-channel storage capacity?
7. Does the project address safety valves where the excess flow will need to exit the system?
  - a. Identify overland pathways and locations for properly sized outlet structures? i.e. Gages, Joe Leary, Higgins sloughs and impacts to other existing drainage infrastructure
  - b. Incorporate natural topographic features of the project location? i.e. natural swales and high ground, off channel storage etc?
  - c. Require modification or relocation of infrastructure that may impede overland flow?
8. Does the project increase debris conveyance, in-channel and through bridge structures?
9. Does the project provide for evacuation routes and early warning systems for high risk areas? Land Use?
10. Is the project cost effective?

**12/05/2008 Additions: These criteria have yet to be addressed by the committee.**

- Does the project support Corps guidance preference for non-structural methods of flood control?
- Does the project support preservation of existing rural land use designations?
- Does the Public Safety flood risk reduction potential of the project outweigh the environmental costs?

**Environmental Technical Committee Tier One Criteria**

The tier one criteria are intended to address impacts to fresh water and estuarine / marine habitats. The ETC list of fatal flaw criteria is as follows:

1. Does the project demonstrate a significant net gain in natural riverine processes? In particular, does the project:
  - a. Improve natural flood water conveyance?; and
  - b. Preserve or improve channel migration, and floodplain processes and reduce bank hardening?; and

- c. Improve / restore riparian processes?
2. Does the project improve or preserve estuarine, near shore and marine processes, habitats, and resources?
3. Does the project demonstrate improvements to flood related Water Quality and contamination problems?
4. Can the project work in synergy with other planned actions i.e. up and downstream effects need to be evaluated and addressed?

## Land Use Technical Committee Criteria Recommendations

LUTC recommended the original Option #2 from Document C (AC Meeting 12/15/08)

<b>OPTION 2: THEMES FROM THE TECHNICAL COMMITTEES</b>
<ol style="list-style-type: none"><li>1. Critical infrastructure protection</li><li>2. Other existing infrastructure protection</li><li>3. Minimal known land use conflicts</li><li>4. Minimal known regulatory conflicts</li><li>5. Could be designed to benefit multiple objectives</li><li>6. Degree of environmental impact/mitigation and could it be designed for ecosystem benefits</li><li>7. Timeliness of implementation</li><li>8. Cost<ul style="list-style-type: none"><li>▪ Capital</li><li>▪ Land acquisition</li><li>▪ Maintenance</li><li>▪ Cost-benefit</li></ul></li><li>9. Perceived community acceptance<ul style="list-style-type: none"><li>▪ Shared burden</li><li>▪ Impacts to privately-owned land</li></ul></li></ol>

## CRITERIA DEVELOPED BY 2000-2001 FLOOD RISK MANAGEMENT WORKING GROUP

Following the December 15, 2008 FCZD Advisory Committee meeting and at the request of the Advisory Committee, Larry Kunzler conducted an extensive review of documents produced by the Flood Risk Management Working Group during the 2000-2001 period. Two sets of criteria from that earlier effort are shown below.

## Criteria Developed during a Committee Meeting

The following is an excerpt from the April 26, 2001 Skagit Flood Risk Management Working Group Meeting Notes:

“The facilitator asked the participants again for issues about which they want more information and issues that could be important enough that they could be showstoppers, eliminating an alternative from further studies. The group came up with the list below:

- Cost to Skagit County
- Potential for future restoration activities
- Recreational opportunities
- Farmland acreage lot/gained
- Fisheries benefits
- Cultural and archeological studies
- FEMA’s position regarding changes to flood insurance
- Compliance with laws (instream flows, GMA, ESA, Exec. Order 11988 regarding use of federal money to develop in a floodplain)
- Opportunities for partnerships
- Consistency with the 4(d) rule
- Wildlife benefits (other than salmon)
- Flood damage reduction (who gets wet, and who get wetter than they do now)”

## Major Project Criteria from Project Study Plan

The following list of major project criteria were enumerated in a project study plan that may have also been associated with the Corps of Engineers project:

- Reduce flood hazards and flood damage costs in the project area to the maximum extent practicable.
- Protect existing public infrastructure to the maximum extent practicable.
- Be cost-effective for both construction and maintenance.
- Provide to the maximum extent practicable, protection fro towns and cities of the Skagit River floodplain below Highway 9 in Sedro Woolley.

- Improve the integrity of rural levees so as to reduce the threat of catastrophic failure and reduce flood damages to the maximum extent practicable.
- Decrease the transportation closures during flooding on critical transportation corridors including, but not limited to, Interstate 5, Highway 20, SR 11, and Highway 9 to the maximum extent practicable.
- Avoid adverse impacts to the aquatic and terrestrial environment to the extent practicable. Minimize and compensate for unavoidable adverse impacts to the aquatic and terrestrial environment.
- Define opportunities to partner with other watershed stakeholders to improve fish and wildlife habitat, recreation, and transportation resulting from the project.
- Comply with all federal, state, and local regulation, including environmental regulations
- Do not induce development in rural areas to the maximum extent practicable.