DOCUMENT C-4

CRITERIA FOR SCREENING PROJECTS AND MEASURES

Background

The Advisory Committee (AC) continued to work on project screening and evaluation criteria at their August 17, 2009 meeting. The AC last addressed this topic at their February 2009 meeting. At that time draft Document C-3 had been developed by County consultants working on the project from input provided by the FCZD AC and Technical Committee. C-3 contained a very general option - Option 1, and a more detailed option - Option 2. It was acknowledged that Option 1 criteria would be used for the initial screening (fatal flaw) review of the preliminary measures developed as part of the Skagit GI and that Option 2 would be developed at a later time and applied to the projects and measures in the Skagit CFHMP.

After general background discussion the AC asked County staff to revise C-3 to combine the two options in a manner consistent with the previously approved CFHMP Mission, Goals, and Objectives.

It is proposed by staff that the following project criteria be used to initially screen and evaluate preliminary projects and measures moving forward in the CFHMP. Generally all projects should have affirmative answers to the criteria listed below. It is understood that additional technical information on individual (and combined) measures will need to be developed to answer all the criteria questions. More detailed technical and ranking criteria will need to be developed after projects with promise have advanced in analysis and design. These criteria will continue to be reviewed and updated as more information becomes available on the existing flood risk, design and environmental impacts/benefits to name a few.

Engineering Criteria

1. Does the project maintain or improve Public Safety and critical infrastructure protection when compared to existing flood risk?
    a. No less than existing flood risk (no project should reduce the existing level of flood risk protection for a given area)?
    b. Reduce the potential for levee failures?
    c. Increase conveyance efficiency of the existing levee system?
    d. Does not create a greater risk of catastrophic failure due to inadequate interior drainage (overland flow, increase in sheet flow, floodplain inundation etc.)?
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 addressed (redesigned or mitigated)?
3. Can the project maintenance and operations be sustained (i.e., the cost of permitting, repair, and mitigation) locally?
4. Does the project reduce risk to soils and drainage in agricultural resource lands?
5. Can project effectiveness be maintained regardless of which hydrology is eventually used (local vs Corps) for project design?
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?

Environmental Criteria:

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?

Economic and Land Use Criteria:

1. Does the project minimize the net loss of farmland? Can any loss of agricultural land be mitigated, such as being used to balance the need for an additional 2700 acres of restored estuarine habitat identified in the salmon recovery plans?
2. Does the project provide continued and/or improved risk reduction for cities, towns, and other urban growth areas?
3. If necessary does the project provide for evacuation routes and early warning systems for high risk areas?
4. Is the project cost effective?

5. Does the project support Corps guidance preference for non-structural methods of flood control?
6. Does the project support preservation of existing rural and resource land use designations?
7. Are critical infrastructure and critical facilities protected?
8. Will project avoid any known land use or regulatory conflicts?
9. Is the project designed to benefit multiple objectives in addition to flood risk reduction and ecosystem restoration, i.e., open space?
10. Does the project meet perceived community acceptance?
    - Shared burden
    - Minimized impacts to privately-owned land
    - Public Safety flood risk reduction potential of the project outweigh the environmental costs
    - Can the project maintenance and operations be sustained (i.e., the cost of permitting, repair, and mitigation) locally?