

**2012 KING COUNTY FLOOD HAZARD MANAGEMENT PLAN UPDATE**  
*March 6, 2012*

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**TOPIC:**

Levee vegetation and eligibility for US Army Corps of Engineers (Corps) levee repair funding

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**STATEMENT OF ISSUE:**

How should the Flood Control District engage with the Corps on levee vegetation management and disaster funding eligibility under the PL 84-99 program?

Local governments in the Puget Sound region continue to be caught between conflicting federal mandates: we are required to degrade riparian areas identified as critical habitat for federally listed species so that we can retain our eligibility for federal PL 84-99 funding for critical public safety projects. In other words, to comply with one federal mandate we must risk violating both the Endangered Species and Clean Water Acts. Since 2009 the State of California Department of Fish and Game and several environmental organizations have filed a notice of intent to sue the Corps over vegetation management policies.

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**BACKGROUND:**

- Since the early 1990s King County has successfully constructed levee projects that rely on native riparian vegetation as a primary means of erosion protection.
- Under Public Law 84-99 (PL 84-99), the Corps is authorized to provide emergency assistance to cost-share and construct levee repairs following a disaster event. Eligibility for this cost-sharing program requires that levee sponsors comply with the Corps Rehabilitation and Inspection Program (RIP), which requires the removal of vegetation greater than 2 inches in diameter from levees.
- Through an existing regional variance the Corps' Seattle District allows the presence of vegetation up to 4 inches in diameter.
- While the purpose of these Corps standards is solely eligibility for federal disaster funding, they are often incorrectly perceived as federal guidance for maintenance necessary for levee accreditation by FEMA. Land behind FEMA accredited levees is not subject to federal insurance requirements or floodplain development regulations. To the degree that the Corps is considered the authority on levee safety, their standards are often cited as the default maintenance standard even for levees outside the PL 84-99 program.
- Federal funding levels under PL 84-99 vary considerably. Since 1990 Corps funding of levee repairs in King County has totaled \$27 million, including \$25 million received in 2008-9 alone. The 2008-9 level of Corps funding was unique in the last 20 years.

The Corps has proposed the following changes to the policy for local vegetation variances:

- To apply for a variance, local levee operators will need to submit a variance request for individual levee systems, but may look at river systems in a larger planning context. Variances for each individual levee would require approval at multiple levels, with a final decision by Corps Headquarters rather than the local District.
- Responsibility for providing the engineering justification and federal environmental compliance for the variance shifts from the local Corps District to the local sponsor (i.e., King County).

- Drafts of the PGL Corps Policy Guidance Letter (PGL) to date have not included clear standards for an acceptable variance – while the required submittals are clear the criteria against which these submittals will be evaluated is not.
- Along with the PGL revisions, the Corps is also proposing changes to the System-Wide Improvement Framework (SWIF). Under a SWIF, any risk to levee stability posed by vegetation can be prioritized alongside other levee safety risks, with the target of eventual compliance with a levee variance from the national standard developed under the PGL / SWIF process. The two may be used in combination to develop a prioritized SWIF that includes vegetation variances for specific levee segments. A SWIF would be developed collaboratively by multiple parties including the Corps, County, tribes, federal and state agencies, and other local governments, and be used to inform a capital budget that addresses the most pressing levee stability issues along a river system.

King County has been working with a team of state and federal partners (including the Corps Seattle District) to develop a two-pronged approach to achieving the following goals for levee vegetation management in Western Washington:

1. *Safe and Effective Levees*: resilient structures that can be accessed and inspected during floods.
2. *Functional Habitat*: in many densely developed locations our levees are our riverbanks.
3. *Cost-Effective*: use limited resources to address the worst problems first.
4. *Science-Based*: responsive to new information and research.

With these goals in mind, the team has been pursuing a science-based federal policy that reflects regional conditions and provides flexibility from uniform national standards, support for other stated federal habitat and clean water goals, appropriate prioritization of levee vegetation alongside other known levee safety risks, and a commitment to future research.

In pursuit of these objectives we have worked with state and federal colleagues on a two-pronged levee vegetation strategy to (1) apply political pressure to revise the PGL so that regional approaches would be allowed and (2) participated, at the invitation of the Corps Seattle District, in the levee vegetation framework effort to develop an alternative vegetation management proposal with the Corps, federal and state agencies, and the Muckleshoot Tribe.

In part due to the political pressure, the draft PGL policy was delayed several times before being released for public comment in February 2012. The Corps is also proposing changes to the System-Wide Improvement Framework (SWIF), an alternative that allows vegetation to be prioritized against other levee safety risks with the long-term intent of bringing all PL 84-99 levees into compliance with either the national standard or individual variances issued under the revised PGL. The work group convened by the Seattle District has developed a Levee Vegetation Management Framework as an alternative to the national standard. This Framework has not been reviewed and approved by Corps Headquarters, but has been described as a ‘powerful tool’ in helping to address multiple floodplain objectives It been evaluated for Endangered Species Act (ESA)/or Clean Water Act (CWA) compliance. The Flood Control District is currently working with the Puget Sound Partnership and the Corps to host a workshop on how the Framework might be implemented via a SWIF and vegetation variances to support the four goals listed above.

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#### **ALTERNATIVES TO CONSIDER:**

1. Comply with national standard; no variances or SWIFs.  
PRO: Eligible for Corps levee repair funding if it is available.

- CON: Depending on Corps requirements, would divert up to \$165M from high-priority risk reduction needs to remove vegetation and root systems, patch levees, and mitigate for the removal of vegetation; inconsistent with Endangered Species Act and Clean Water Act objectives; does not reflect regional conditions.
2. Apply for variances under the new PGL from the Corps; no SWIF.  
PRO: If approved by the Corps, funding eligibility is maintained.  
CON: Uncertain what constitutes an acceptable variance, and unclear whether such a variance would comply with ESA and CWA. Time and money spent on variance application and review process will be diverted from risk reduction projects.
3. SWIF plus individual levee variances  
PRO: Prioritizes funding based on risk over a larger geographic scale as above; variances would enable some additional vegetation to remain on levees while maintaining federal funding eligibility  
CON: Unclear what constitutes an acceptable SWIF or variance. Assumes that some vegetation will eventually be removed over a longer timeframe if not consistent with variance. Development and approval of a SWIF and variances will divert resources from existing work program, although significant work has already been completed for the Green River. ESA and CWA compliance are uncertain.
4. Withdrawal from PL 84-99 (would not include Horseshoe Bend and Tukwila federal levees)  
PRO: Reduced ESA/CWA liability. Increased ability to support ecological objectives as part of public safety flood risk reduction program.  
CON: Does not contribute to regional effort to resolve problem of conflicting federal mandates. Ineligibility for federal levee repair funding. May increase legal exposure related to levee performance should a levee breach occur.

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#### **ADDITIONAL RESOURCES:**

##### **Levee Vegetation Symposium Keynote Speech (2007)**

<https://www.kingcounty.gov/environment/waterandland/flooding/ron-sims-levee-vegetation-speech/video-transcript.aspx>

##### **Overview of Levee Vegetation Management and Army Corps Funding Eligibility (2010)**

[http://your.kingcounty.gov/dnrp/library/water-and-land/flooding/kcfzcd/Overview\\_Levee\\_Vegetation\\_Board\\_042610.pdf](http://your.kingcounty.gov/dnrp/library/water-and-land/flooding/kcfzcd/Overview_Levee_Vegetation_Board_042610.pdf)

##### **Federal Executives Letter on Levee Vegetation (USACE Northwest Division, EPA, and National Marine Fisheries Service, 2010) (attached)**

##### **Army Corps of Engineers Levee Vegetation Research Fact Sheet (Sept 2011)**

[http://wri.usace.army.mil/documents/woody\\_vegetation\\_report/FactSheet-Woody\\_Vegetation\\_Report.pdf](http://wri.usace.army.mil/documents/woody_vegetation_report/FactSheet-Woody_Vegetation_Report.pdf)

##### **Levee Vegetation Presentation - Floodplain Management Association (Sept 2011)**

[http://www.floodplain.org/cmsAdmin/uploads/Murray-Trees\\_on\\_Levees.pdf](http://www.floodplain.org/cmsAdmin/uploads/Murray-Trees_on_Levees.pdf)

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