

King County

Trees on Levees:
Local Challenges with Conflicting Federal
Mandates

Is there a “clear cut” answer?

Presented by Brian Murray
King County, Washington

Floodplain Management Association
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What vision do we have or want for rivers in our society?



U.S. Army Corps of Engineers, 2010

OR



Narita Bioengineered Levee, Green River, Washington 2004

- Public safety
- Economic development
- Habitat for fish and wildlife
- Open space and recreation

U.S. Army Corps of Engineers' *Current* Levee Vegetation Policy

National Levee Vegetation Policy:

- All vegetation 2" DBH or greater must be removed
- Based on belief that vegetation compromises structural integrity and inspections needs
- Not science-based policy

Existing Seattle District Regional Variance:

- Allows trees and bushes up to 4" DBH in clumps at 30-foot centers
- Allows for 'engineering discretion'



U.S. Army Corps of Engineers' *Proposed* National Levee Vegetation Variance Policy



*Kent Shops-Narita Levee, Green River, Kent, WA
2010*

- One size fits all approach to all levees across the nation
- All regional variances would be repealed on April 2012
- Variances applied to individual levee systems rather than by region or by reach/river systems
- Complex and costly approval process effectively making variances nearly impossible to obtain

Why does the U.S. Army Corps of Engineers care about vegetation anyway?

- Ability to inspect for damages
- Emergency access
- Catalyst for piping and seepage
- Bank saturation and slumping
- Wind throw



U.S. Army Corps of Engineers Inspection, Horseshoe Bend Levee, Green River, Kent, Washington

Why do local levee and floodplain managers care?

- Federal ESA and CWA mandates
- Federal levee repair eligibility mandates
- Levee certification
- Perception of federal maintenance standards



U/S Plemmons Levee, Green River, Kent, WA

What are the impacts to local governments?

- “Pay to Play”
 - \$95–\$174M for King County alone
- Habitat impacts
 - Removal of at least 13,600 trees in King County alone
- Potential liability
 - ESA and CWA third party lawsuit?
 - Pending 60-day notices from NGOs
- Fiscal responsibility
 - What are the highest priority threats to the public safety?
- Public perception
 - Over 85,000 trees and other native vegetation planted by volunteers since ESA listings



Tukwila, WA, 2010

Why are we skeptical about such a levee vegetation maintenance policy?

- Nearly 300 projects built by King County since the early 1990s
- None of the projects have been the result of vegetation
- Preponderance of damages is where vegetation is not present
- California: research of 329 levee breaches concluded that none were the result of levee vegetation



What do we want instead?



Christiansen Road Levee Bioengineered Levee Repair, Spring 2010.

Create regional program and process that provides for:

1. Safe and effective levees
2. Functional habitat
3. Cost effective use of scarce public resources
4. Use adaptive management

What else do we want?

- ‘Follow the science’
- ‘Locally-implementable solutions’
- ‘Regional variations in levee management and resource needs’
- ‘Risk-Based Approach’
 - Look at and consider
 - Vegetation species and characteristics
 - What’s being protected
 - Design and construction of levee



How do we get there and bring resolution to this issue (if possible)?

Track 1 – National Effort: Targeted outreach – “full court press” – to provide room in the Corps of Engineers’ proposed vegetation policy

Track 2 – Regional/Local Effort: Collaborating with Corps of Engineers, other stakeholder agencies and Native American Tribes to develop a functional and cost-effective regional variance program/template for local levee managers

Track 1: National Effort

- Key focus:
 - Secure a decision to provide room in proposed new national vegetation standard for regional variance program/template
- Impact of effort:
 - Letters, other contacts and communications with Army Corps of Engineers' Headquarters, other federal agencies
 - Delays in the final decision on the new vegetation policy
 - Federal Executives note 'deficiencies' with current proposal

Track 2: Regional/Local Effort

- Goals: Develop a regional program/template that provides for:
 - Safe & effective levees
 - Functional riparian habitat
 - Cost effective investment of funds directed to highest priority levee safety needs
- Various stakeholders in the Corps of Engineers' Seattle District working on this effort
- Many thanks to the Corps of Engineers' Portland Division and Seattle District for pushing and sponsoring this effort

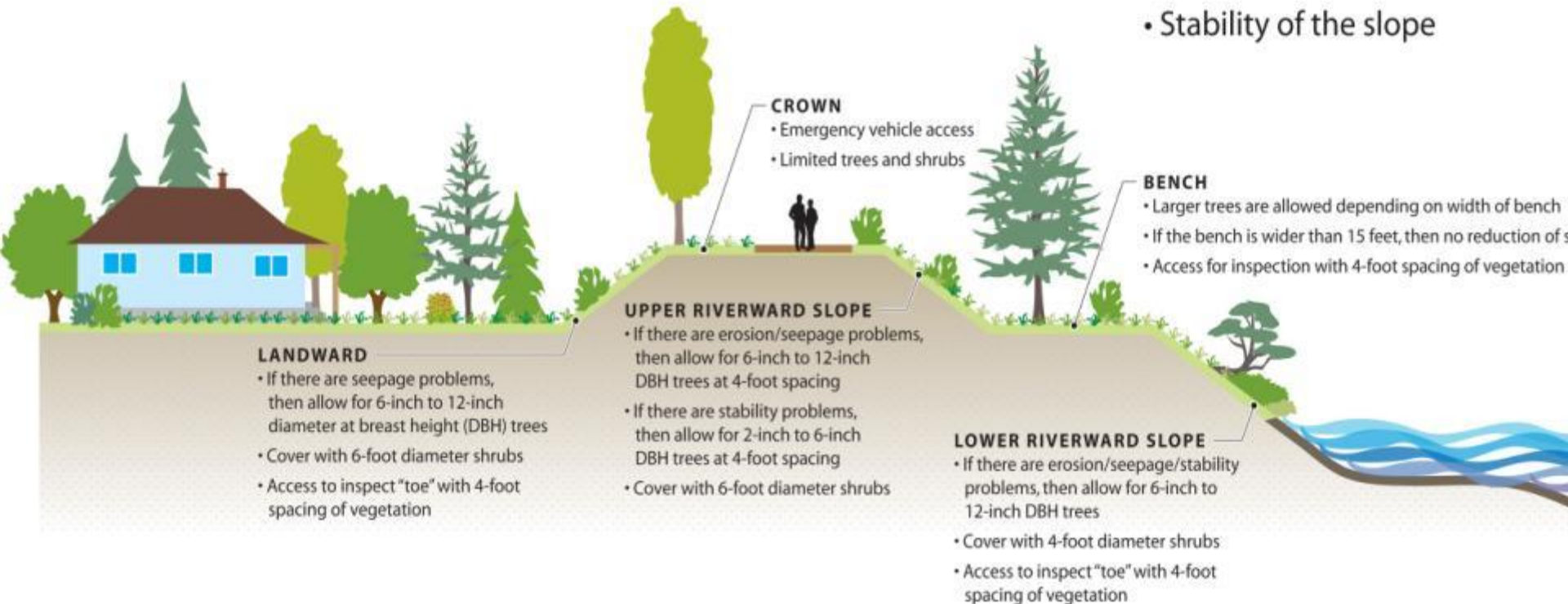
Levee Vegetation Management Proposal - July 8, 2011

LEVEE OPERATIONS

- Access for emergency vehicles and repairs
- Inspection by engineers for damages

LEVEE INTEGRITY*

- Conveyance of the river
- Seepage through the levee
- Erosion of the levee surface
- Stability of the slope



Seattle District Levee Vegetation Framework Project:

U.S. Army Corp. of Engineers, Seattle District; National Marine Fisheries Service; Puget Sound Partnership; King County; Washington State Department of Ecology; U.S. Fish and Wildlife Service; Muckelshoot Indian Tribe; Washington State Department of Fish and Wildlife; and Federal Emergency Management Agency

*The fewer concerns with the integrity of the levees, the greater flexibility allowed.

What's Next?

- Aug 29 - "White Paper" to Major General Grisoli
- Sept 8 – ERDC research report
- Dec 31 – PGL Public Comment Draft
- Apr 2012 - Final PGL
- Apply draft Puget Sound Levee Vegetation Framework throughout Puget Sound

Key Questions

- Will HQ accept it?
- ESA and CWA compliance?
- How can it be improved?



Summary

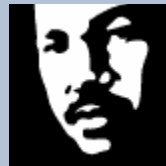
- Protecting public safety is paramount but it *is* possible to balance the fundamental needs of public safety and protection of our vital ecological resources
- Using sound science must be the basis for any policy decisions regarding levee vegetation or maintenance standards
- One size doesn't fit all – we need regionally driven solutions that meet the unique characteristics of our region and river systems
- Expenditure of scarce public money needs to be efficient and practical; we cannot afford to have this continued conflict
- Work towards long term solution that better accommodate flood risk reduction actions with restoring critical habitat



Questions?

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