

Acquisition Partnerships Yield Multiple Benefits

Nancy Faegenburg
Department of Natural Resources and Parks
Water and Land Resources Division
King County, WA



King County Flood Hazard Management Plan

Goals and Objectives:

- Reduce risks and damages from flooding
- Reduce long term costs of flood hazard management
- Maintain or improve riparian habitat conditions

2006 KING COUNTY FLOOD HAZARD MANAGEMENT PLAN

King County River and Floodplain Management Program

EXECUTIVE PROPOSED PLAN
May 2006



 King County
Department of Natural Resources and Parks
Water and Land Resources Division

Landscape Scale Floodplain Acquisitions

- Highly cost-effective flood risk reduction strategy
- Opportunity for ecological and social benefits
- Partnerships are key to success

Challenges to large scale acquisitions

- Substantial one-time cost
- Acceptance by public, willingness of individual landowners
- Support of policy-makers

Tools for Partnerships

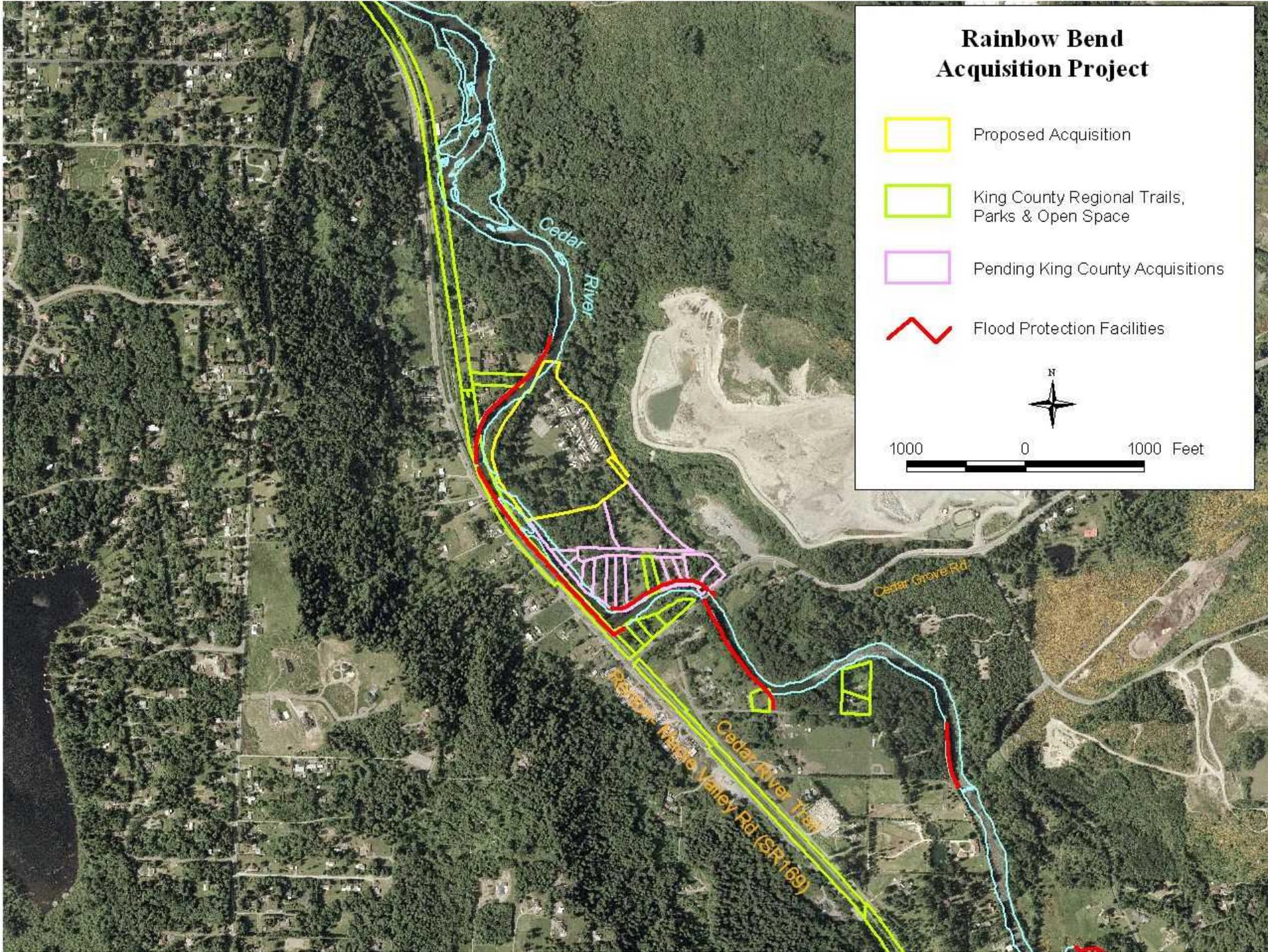
- Multi-Objective Planning and Coordination
- Mapping Hazards and Landscape Features
- Community Outreach and Education
- Leveraging Cross-Purpose Funding

Rainbow Bend Acquisition Project

-  Proposed Acquisition
-  King County Regional Trails, Parks & Open Space
-  Pending King County Acquisitions
-  Flood Protection Facilities



1000 0 1000 Feet



Rainbow Bend Case Study



Homes are flooded as road overtops on left bank and levee breaches on right bank

Consideration of Cedar River Floodplain Functions

- Rural residential community
- Regional Trail, Park, and River Recreation
- Habitat for Fish and Wildlife
- Water Supply and Hydropower

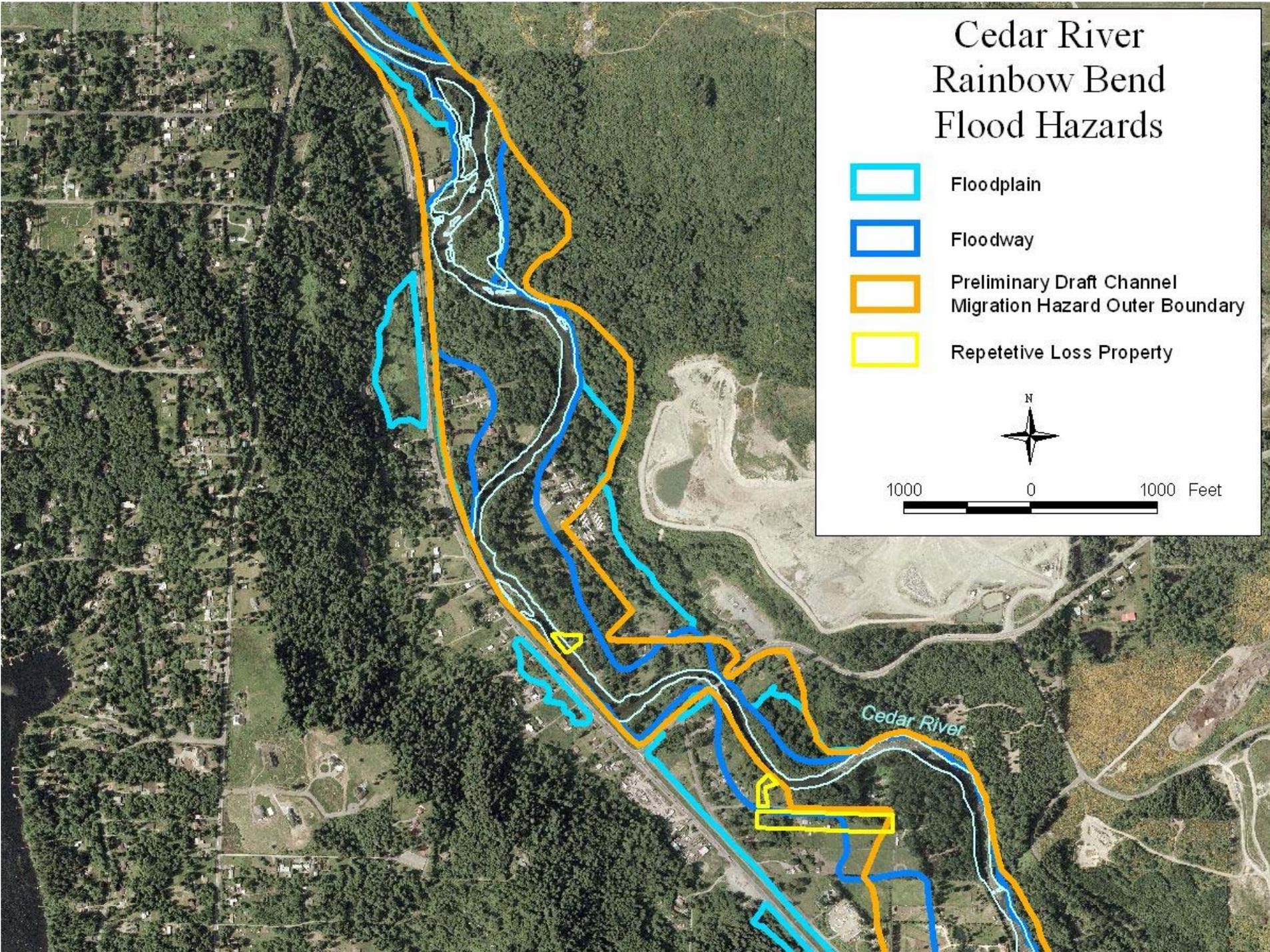


Multi-Objective Planning and Coordination

- Organization needs to develop and adopt policies that promote enhancement of all valuable resource functions and benefits
- Identify players sharing interest in common natural resource areas; learn about their needs
- Incorporate mutually beneficial elements in design of high priority flood risk reduction projects

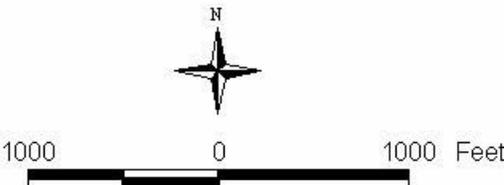
Maps and Composite Data Sets

- Create thematic maps showing flood hazard areas and other significant resource features
- Use a landscape-scale to set context for selection of individual property acquisitions
- Use GIS to overlay target acquisitions for multiple programs and objectives

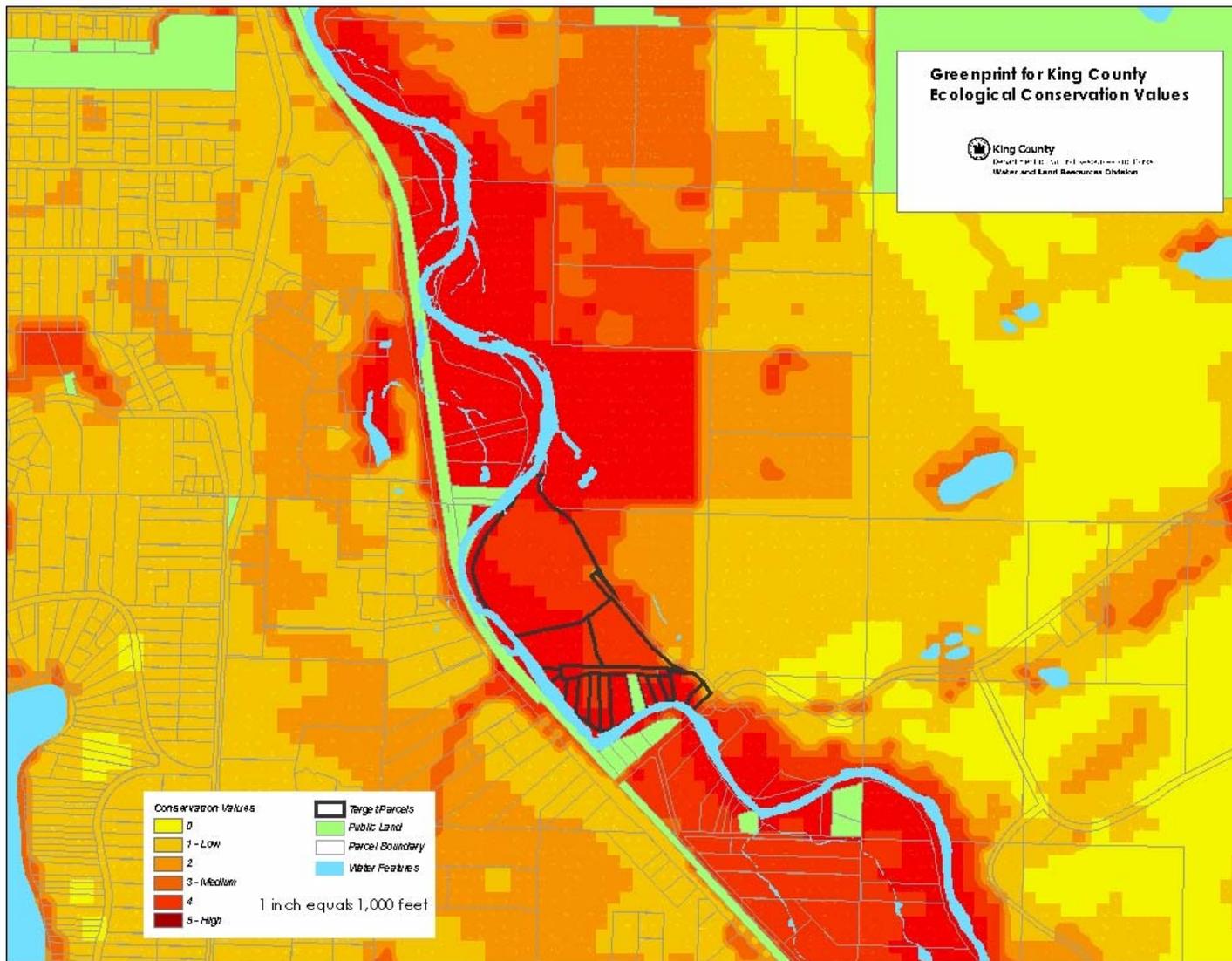


Cedar River Rainbow Bend Flood Hazards

-  Floodplain
-  Floodway
-  Preliminary Draft Channel
Migration Hazard Outer Boundary
-  Repetitive Loss Property

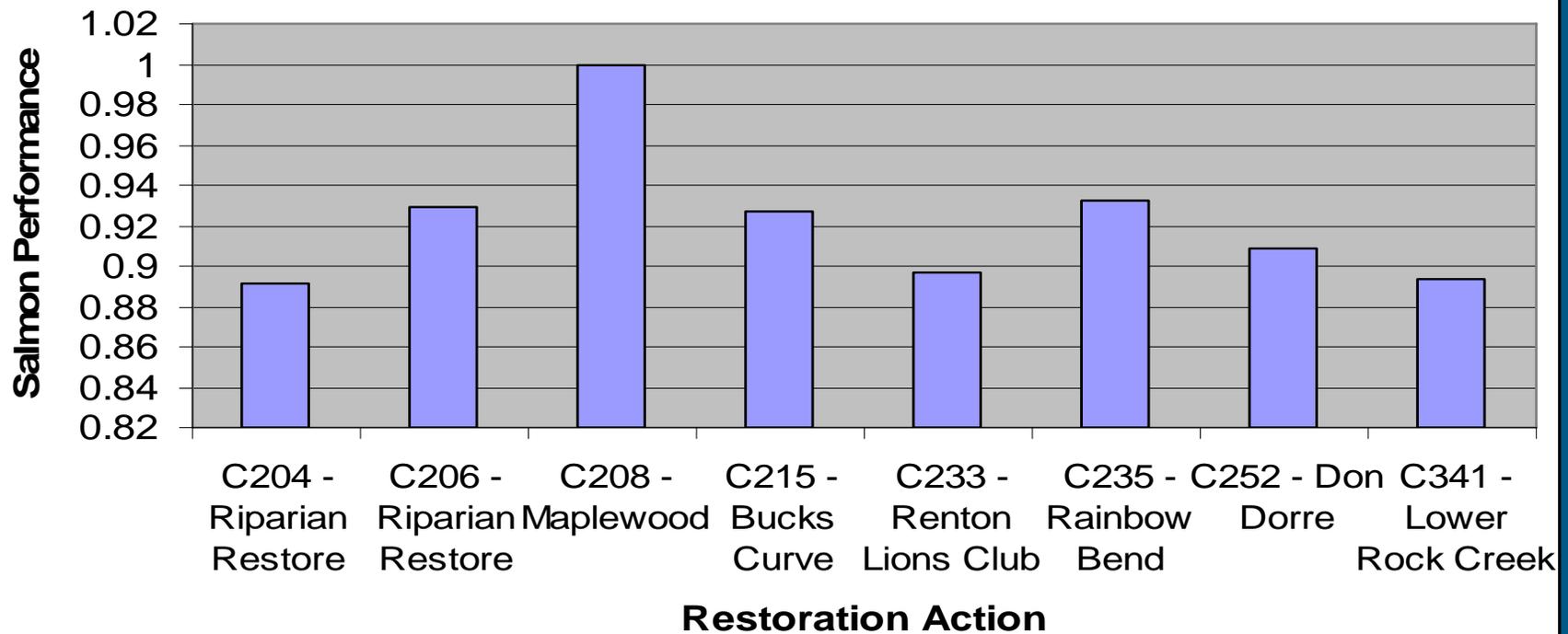


Rainbow Bend: Current Ecological Condition



Future Desired Condition for Aquatic Habitat

Relative Impact of Start List Restoration Actions on Chinook Salmon Performance (Combining Abundance, Productivity, and Life History Diversity)



Build Community Support

- Foster long-term relationships with floodplain property owners and other stakeholders
- Seize opportunities to work with willing sellers
- Emphasize use of fair market value
- Use internet to reach broad audience
- If at first you don't succeed, remain patient, responsive, and available, and try again

Leveraging Multi-Objective Funding

Spanning multiple objectives in acquisition projects increases funding opportunities and overall cost-effectiveness

Funding options for Rainbow Bend:

- Flood Hazard Mitigation
- Salmon Recovery
- Ecological Mitigation (required for off-site projects)
- Open Space
- Parks and Recreation
- Housing and Community Development

Lessons Learned

- Policy support
- Identify partners, share information
- Use maps and data to find overlap, prioritize acquisition targets
- Foster community support through outreach and education
- Work with willing landowners
- Leverage funds from a range of sources

Flood Risks in King County



- Rivers run from Cascade Mountains to Puget Sound
- Flood protection facilities line riverbanks
- Development in floodplains and channel migration areas
- Acquisition is one of many flood risk reduction strategies

Cedar River Focus: Overview of Flood Conditions



- Dozens of homes at risk
- 63 Flood protection facilities line 10 miles of riverbank
- 15 Flood buyouts
- 12 Unmitigated repetitive loss properties

Excerpt from 1964 King County Comprehensive Plan for Flood Control

"The Cedar River Valley is the closest place in King County to the rapidly growing centers of population where wild lands, adjacent to clear, sparkling stream can be found. Should King County acquire these lands and develop them into parks in such a manner as would permit high waters of the Cedar to do little damage, a general recreational benefit would accrue to the people of the county. In addition, the cost of protecting individual homes located in the high water channel would be reduced materially. As a matter of fact, the flood control funds disbursed on the Cedar River in recent years would have covered acquisition costs of all lands along the river several times over."

Landscape Scale Acquisition for Flood Risk Reduction

- Substantially reduces flood risk, damage, and loss for entire neighborhoods
- Reduces long term repair and maintenance needs for facilities extending across multiple parcels
- Allows for increased flood conveyance and storage



Homes are inundated, large woody debris and gravel are deposited



Downstream inundation of floodplain



Multiple Benefits of Landscape Scale Acquisitions

Large areas of open space in the floodplain offers multiple public benefits:

- Creates opportunity for measurable fish and wildlife habitat restoration
- Enhances regional recreation
- Supports natural riverine processes
- Maintains rural character and open spaces