

Capital Investment Strategy

Prepared for the Cedar River Corridor Planning Process

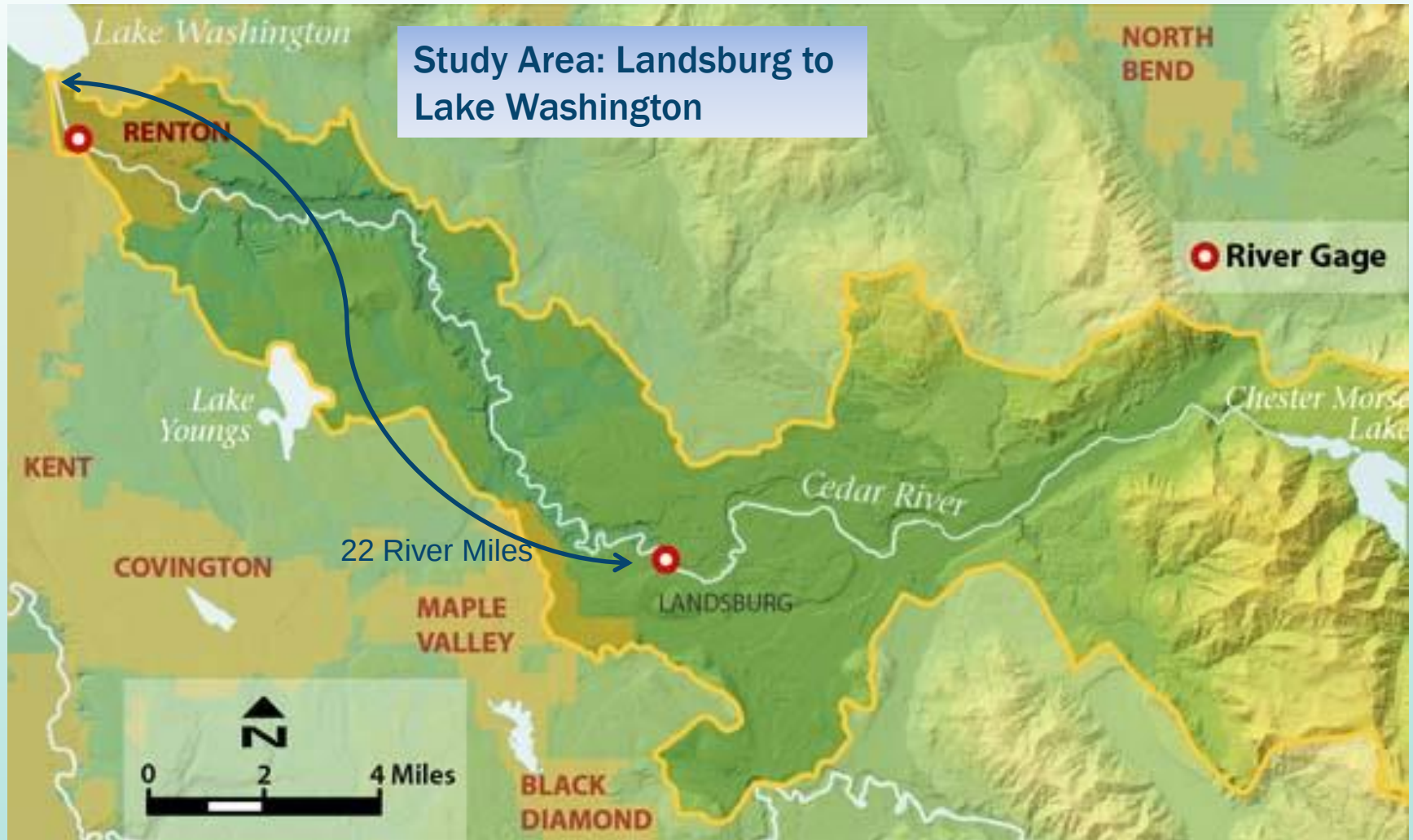
Briefing for the Flood Control District Executive Committee

Nancy Faegenburg, Project Manager

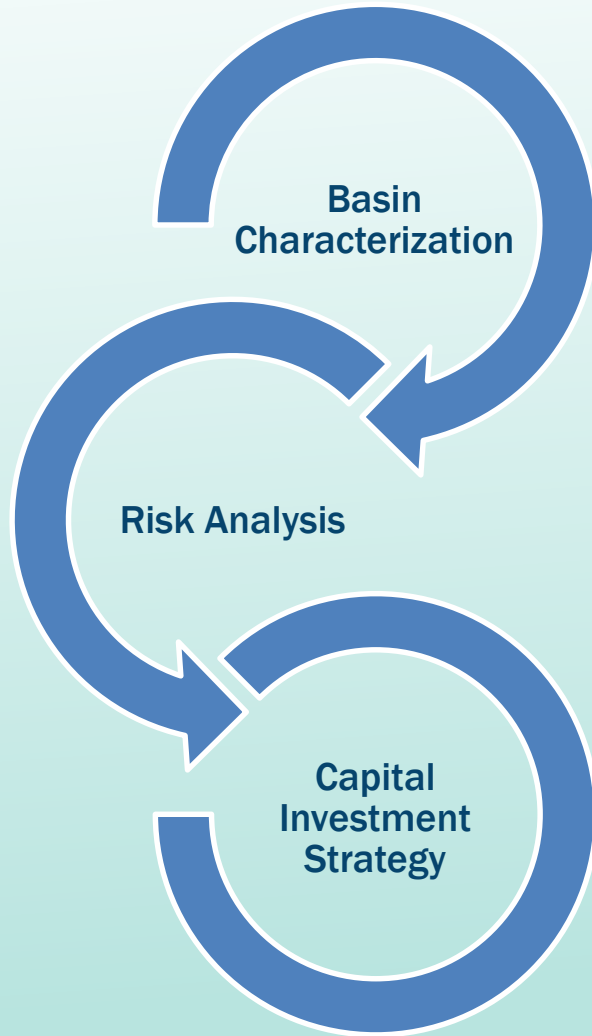
March 27, 2017

Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section

Cedar River Corridor Study Area



Overview of Planning Process



Gather information:

- How the Cedar River functions
- How people interact with the river corridor

- Flood and Channel Migration Risk Data
- Public Outreach - Advisory Committee
- Habitat Opportunities
- Recreation Work Group

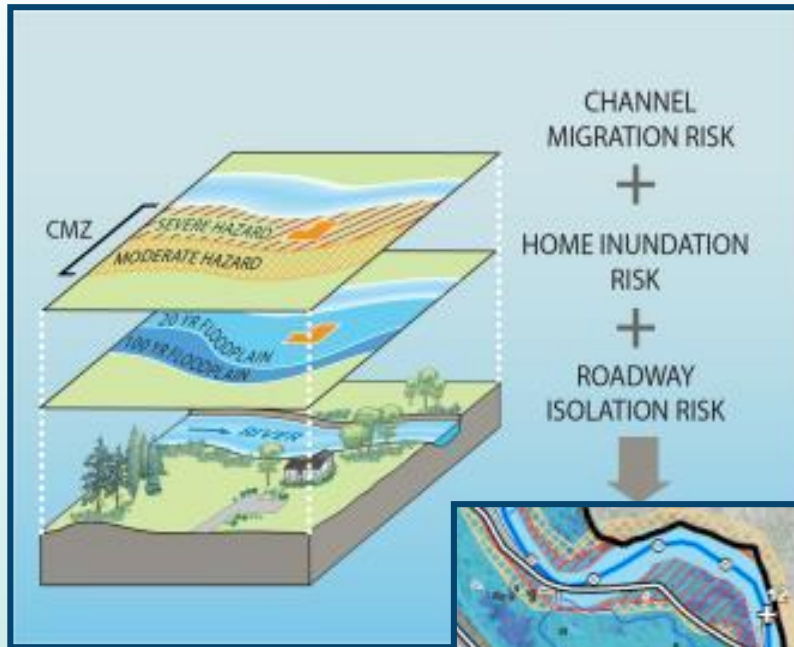
Evaluate:

- Types of hazards and risks
- Identify focal “problem areas” with highest risks
- Identification and ranking of problem areas

Develop:

- Strategies for on-the-ground risk reduction
- Site specific alternative solutions
- Proposed sequencing of projects

Risk Analysis - Methods

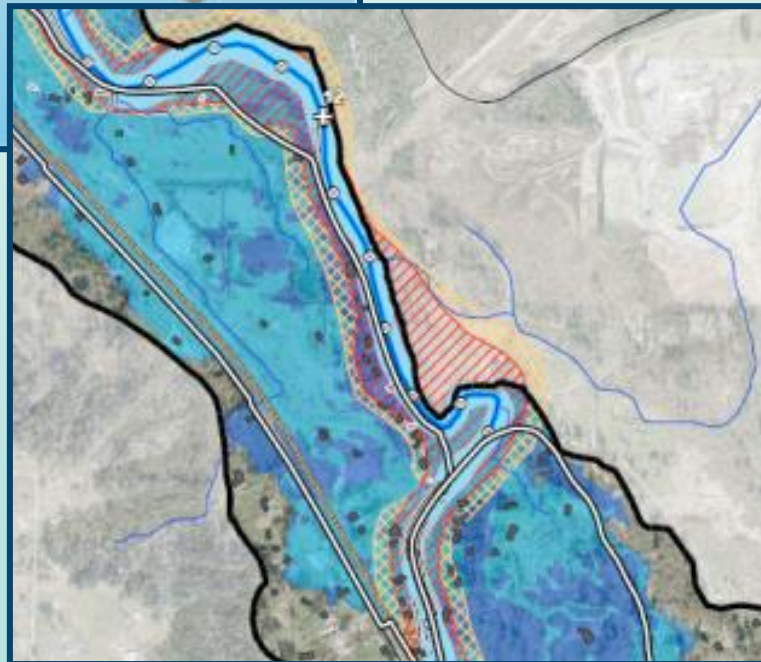


Map overlay of flood and erosion hazards:

- Homes and businesses
- Infrastructure
- Demographics
- Habitat and Recreation

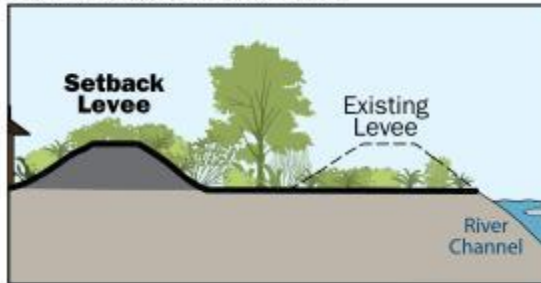
Information Gathering:

- Maps, Data, Reports
- Advisory Committee
- Technical Experts
- Field Observations

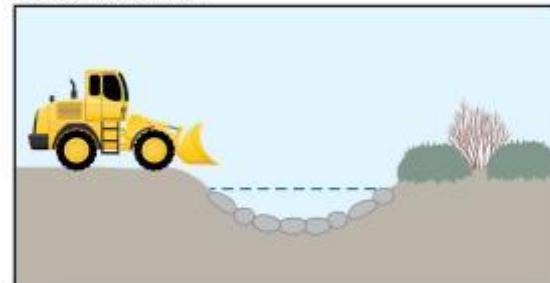


Risk Reduction Approaches

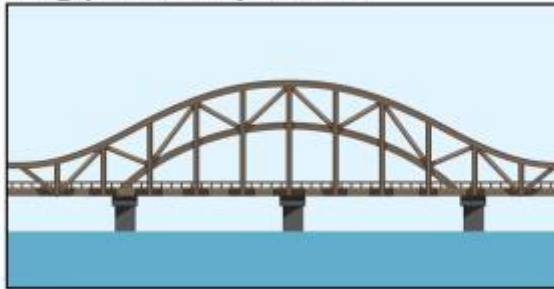
Levee Setback or Removal



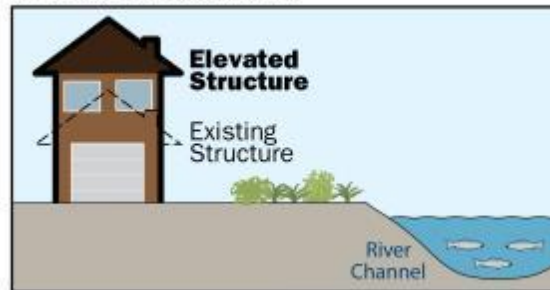
Gravel Removal



Bridge/Culvert Replacement



Elevation of Structure



Raise or Extend Levee In-Place



Risk Analysis – Three Categories

Lower Cedar –
Downtown Renton
(mouth to I-405)



Middle Cedar –
Rural Residential
(Upstream of I-405)



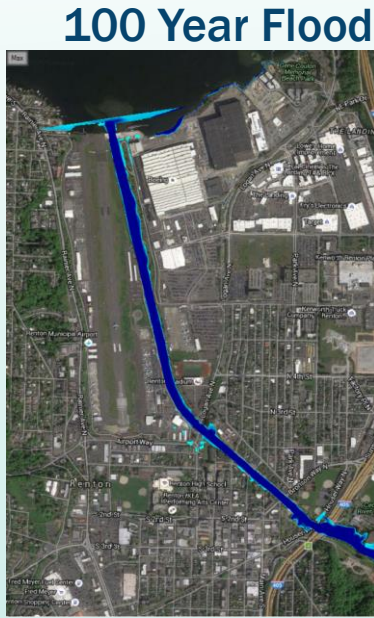
Regional Infrastructure
(Corridor-wide)



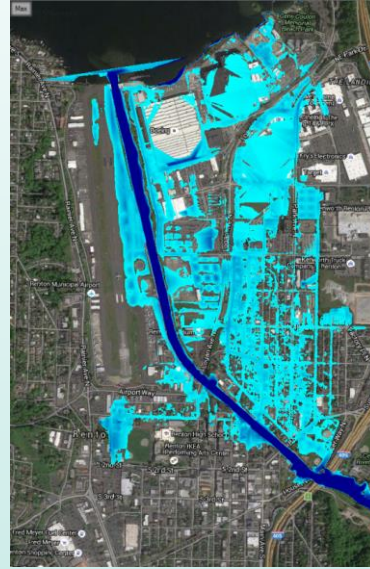
Risk Analysis – Downtown Renton

Flood Depths

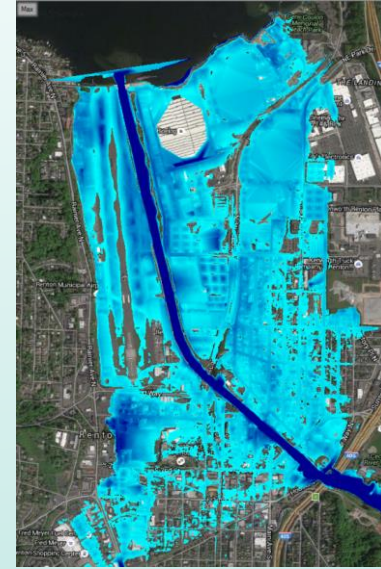
Pre-Dredge



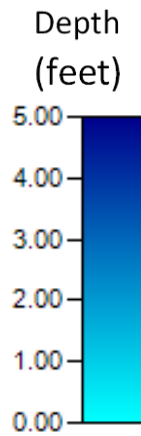
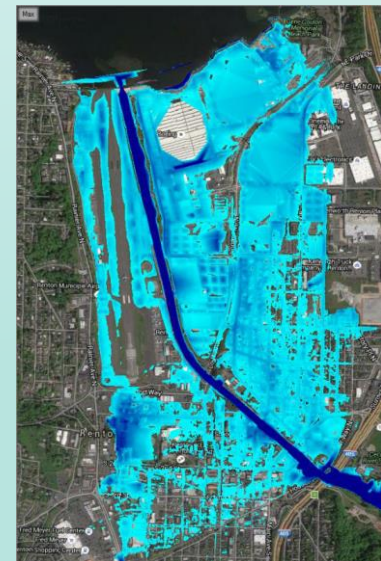
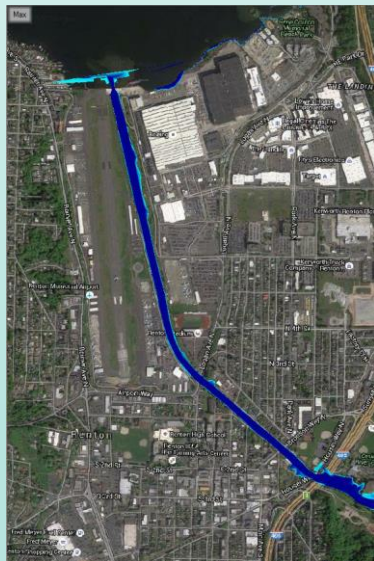
200 Year



500 Year



Post Dredge



Risk Analysis– Regional Infrastructure

13 Hot Spots

- Major Roadways
- Cedar River Trail
- Utilities

Risk Considerations

- Channel Migration Zone
- Vulnerability
- Proximity to river



Risk Analysis – Middle Cedar



One third of corridor:

- 100-year floodplain
- Channel Migration Zone (CMZ)



- Over 500 homes in 100-year floodplain or CMZ – 170 homes in both
- 11 miles of local roads underwater in 100-year flood – isolates 320

homes

Risk Analysis – Neighborhood Problem Areas



Problem Areas

Byers Road Neighborhood

Lower Jones Road Neighborhood

Jan Road Neighborhood

Dorre Don Neighborhood

Elliott Bridge Reach Neighborhood

Rhode and Getchman Neighborhood

Orchard Grove Neighborhood

Riviera Apartments

Arcadia Reach

Rafter's Park – Doris Creek Neighborhood

SE Bain Road Neighborhood

Maplewood Neighborhood

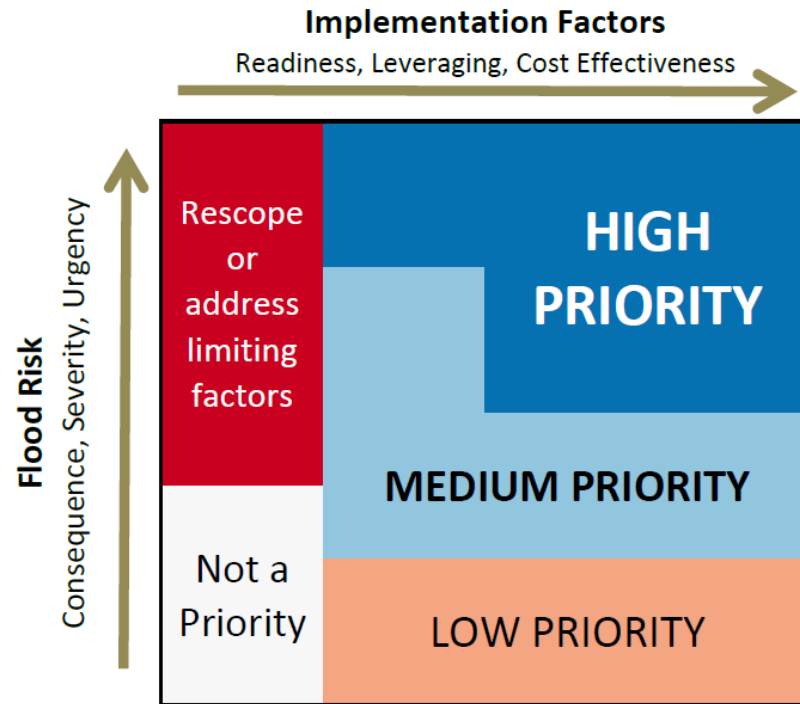
Project Sequencing

Flood Plan Policy on Priorities:

- Threats to public safety
- Damage to infrastructure
- Impacts to the regional economy
- Damage to private structures

Implementation Factors

- Project readiness (e.g., available right-of-way)
- Funding and partnership opportunities



- **Flood risk reduction project concepts**
- **Range of possible alternative approaches**
- **Sequenced by risk and readiness**
 - Near term (6-yr CIP) \$16.8 - 23.8M
 - Medium term (7-10 yrs) \$16.8 - 27.0M
 - Long term (10+ yrs) \$21.8 - 35.4M

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Questions?



Q



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