



# Riverbend Levee Setback and Floodplain Restoration

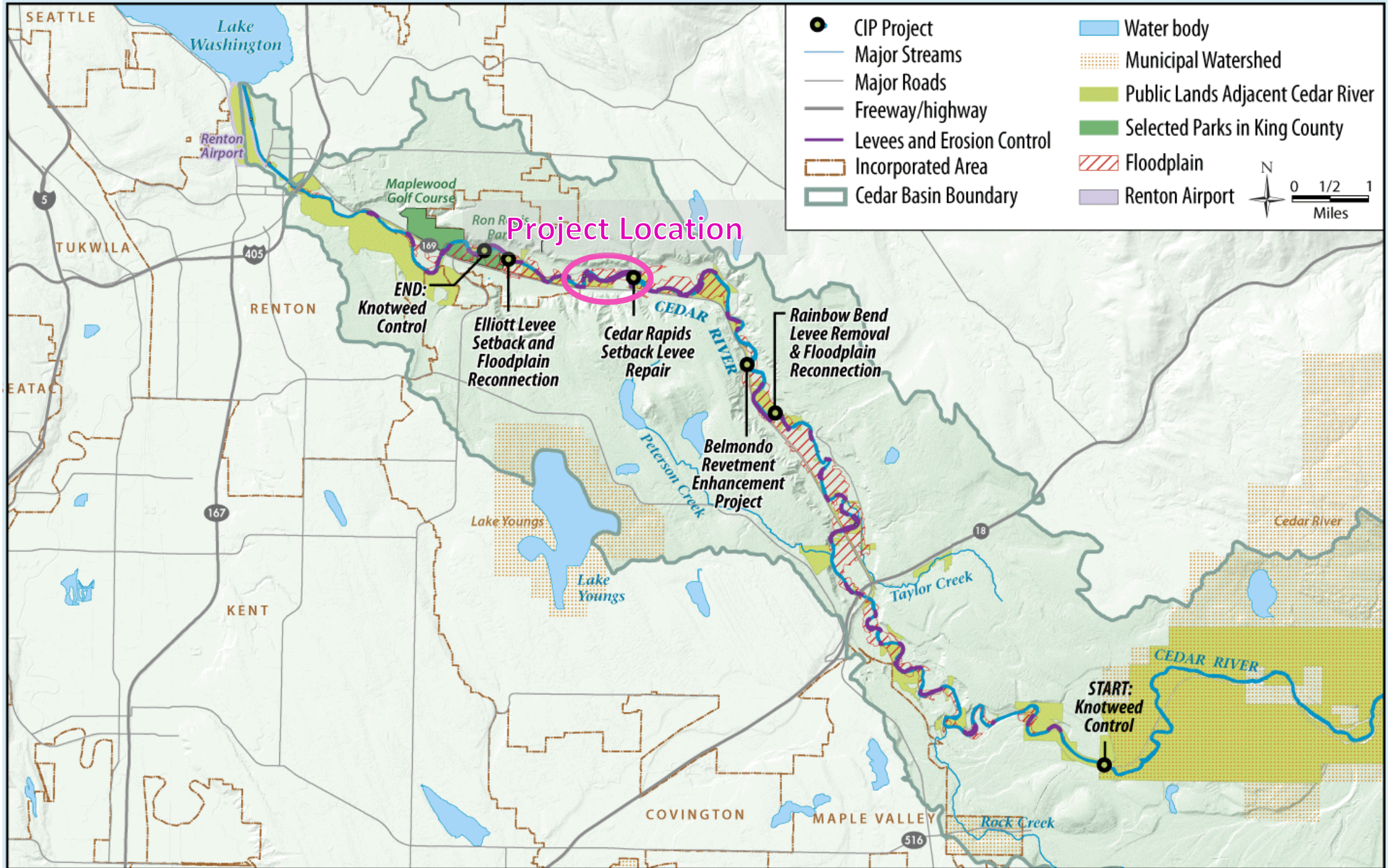
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*Sarah McCarthy*

*KC WLRD Ecological Restoration and Engineering Services Unit*

*WRIA 8 Salmon Recovery Council*

*Construction Update July 2022*

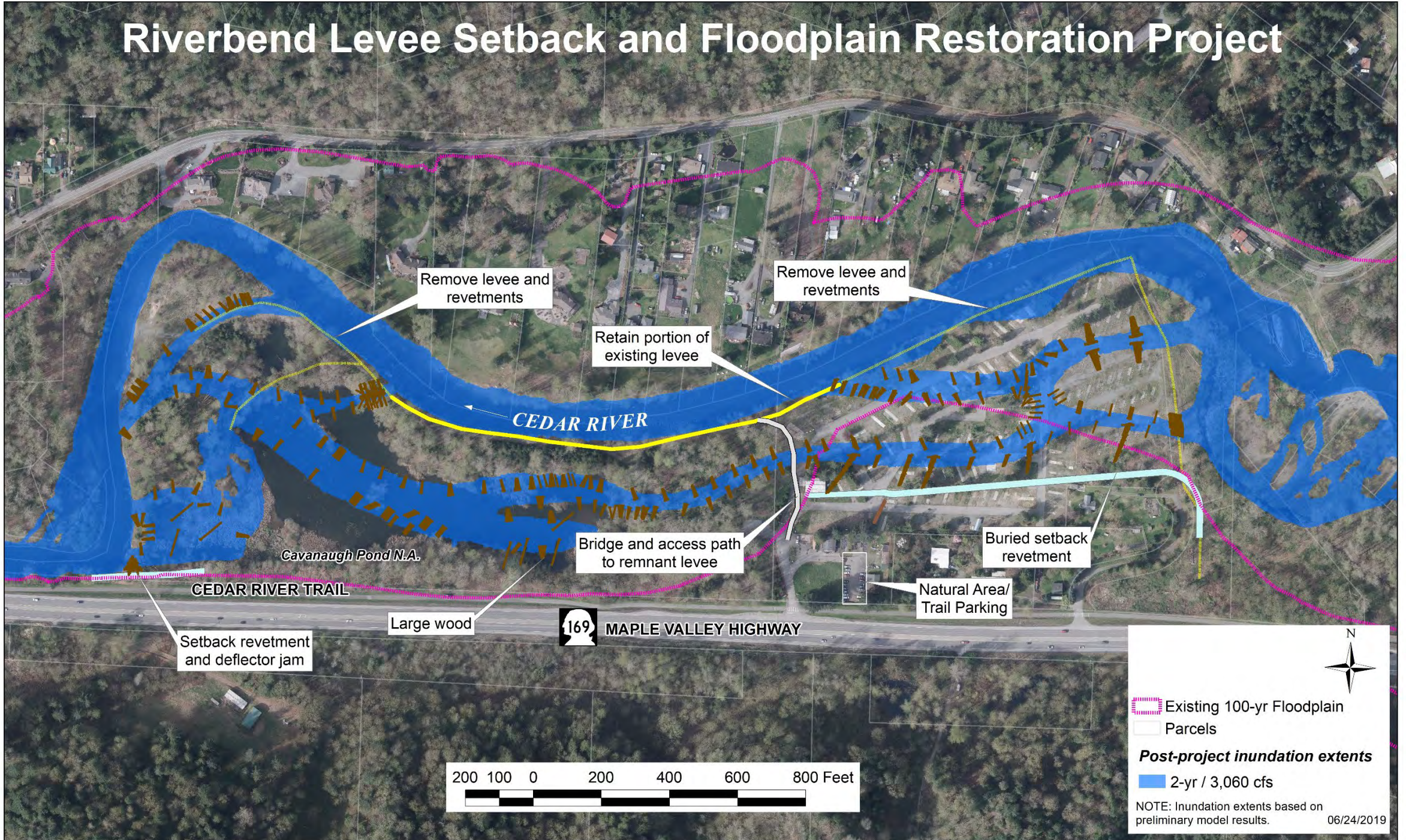


# Multiple Benefit Project

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- ***Improve in-stream and off-channel habitat*** for Chinook and other salmon by increasing channel complexity and reconnecting floodplain habitats
- ***Reduce flood hazards*** by increasing flood storage and dissipating energy through more complex channel and connected floodplain
- ***Reduce long term cost*** to protect and repair damage to public infrastructure and private property
- ***Re-initiate natural river processes*** via setback levee/revetments to achieve multiple goals

# Riverbend Levee Setback and Floodplain Restoration Project



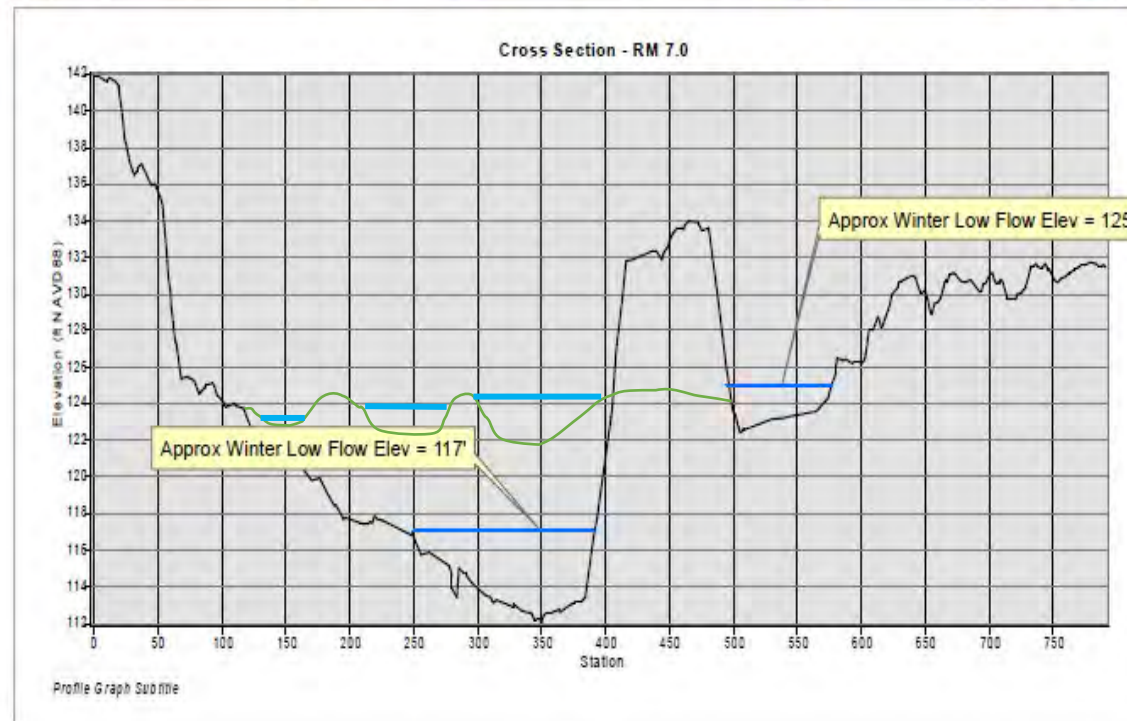
# Proposed Pond Modification



150 75 0 150 300 450 600 Feet

**Bathymetric Cross Section**

**Riverbend Levee Setback**



# Flooding - 2009

Neighborhood Flooding  
January 8, 2009  
7870 cfs @ Landsburg



February 10, 2020  
5,530 cfs at Renton

SR 169  
Cedar River Trail

*Cavanaugh Pond*

Previous location of Riverbend Lower Levee

Cedar River



# Phase 1 – 2020

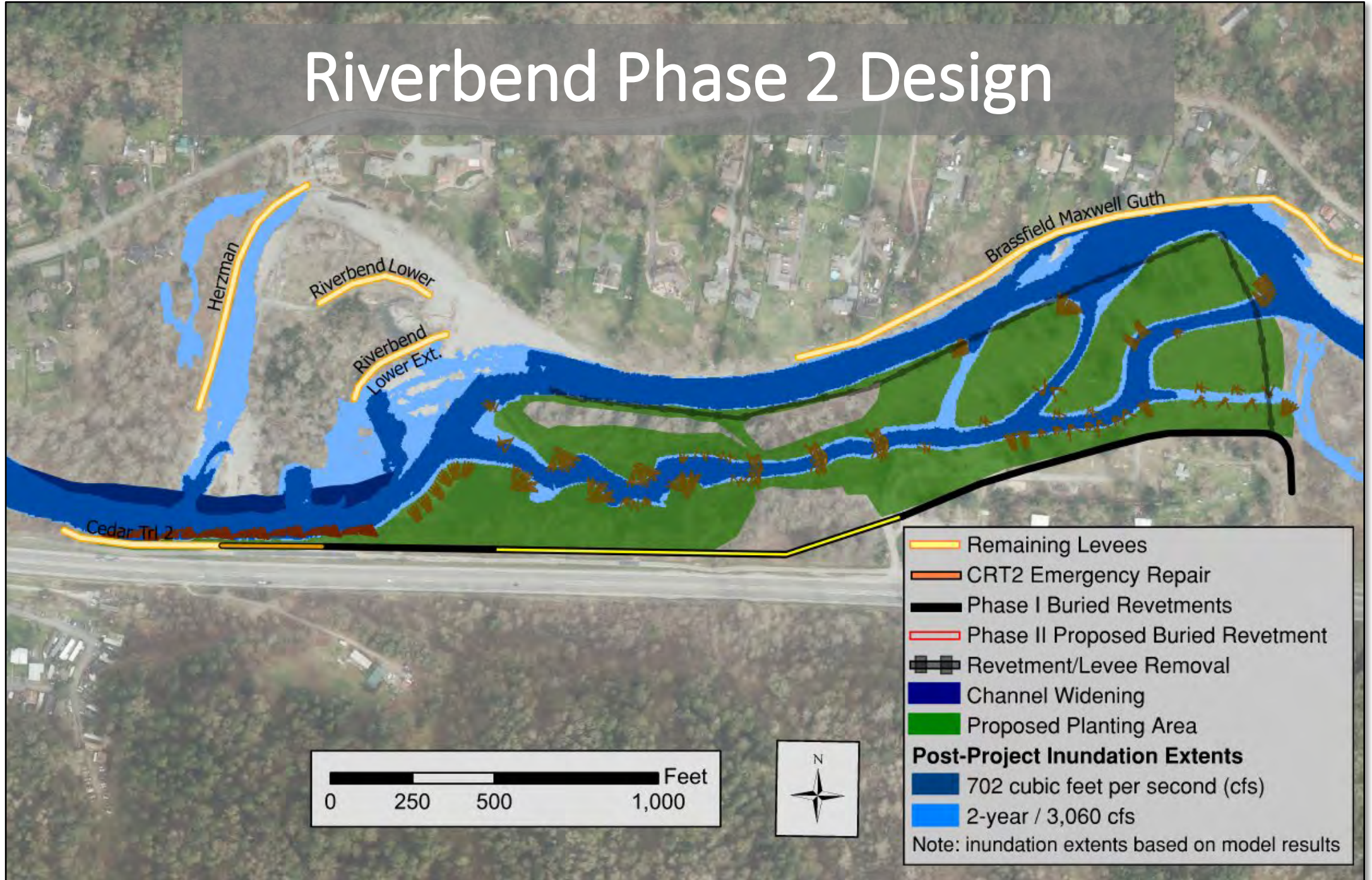
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- Completion of Demolition
- Install buried setback through mobile home park
- Remove/relocated powerlines
- Extension of protection of Cedar River Trail





# Riverbend Phase 2 Design



An aerial photograph of a river construction site. The river flows from the top center towards the bottom right. On the left bank, there is a large area of cleared, muddy ground with visible tire tracks. A yellow excavator is positioned on this bank, and another excavator is partially visible further upstream. A line of white floating barriers is deployed in the river, extending from the bottom right towards the center. The right bank is covered in dense green forest. In the background, a residential area with houses and a parking lot is visible. A circular white text box with a black border is overlaid on the left side of the image.

Grading and  
Water  
Quality  
Protection

An aerial photograph of a river with a yellow silt fence installed across it. On the left bank, an excavator is working on a dirt and gravel area. In the foreground, several wooden logs are laid out on the ground. The background is a dense forest of tall trees.

Levee and  
Revetment  
Removal



Side Channel and Log Jam Construction



An aerial photograph of a log jam construction site. The scene is dominated by a large, muddy area with numerous logs and debris. Several yellow excavators are actively working, with one in the foreground and others further back. A yellow dump truck is parked in the middle ground. To the right, a river flows through the site. In the background, there are stacks of logs and a large pile of white material, possibly gravel or crushed stone. The surrounding area is lush with green trees.

Log Jam  
Construction

An aerial photograph showing a large body of water, Cavanaugh Pond, with a yellow excavator working on the earthen bank. A road with a white car is visible on the left. The water is dark blue, and the surrounding area is lush with green trees. A circular white overlay with a black border is positioned in the upper left corner, containing the text 'Cavanaugh Pond Water Quality Protection'.

Cavanaugh  
Pond Water  
Quality  
Protection

Cavanaugh  
Pond  
Grading and  
Wood  
Staging





CRT 2 Revetment and Log Jam Construction





An aerial photograph of a river bend. In the foreground, a structure made of logs and branches is built on a sandy and gravelly bank. The river flows from the top right towards the bottom right. The background shows a dense forest of green trees. The right side of the image is overlaid with a semi-transparent white box containing text.

# Riverbend Phase 2 Project Schedule

- Construction: May – Oct 2022
- In-Water Work: Jul 1 – Aug 31
- Planting: Oct 2022 – Apr 2023
- Monitoring and Maintenance: 10 years post-construction