Lower Puyallup River Floodplain Mapping Project

Public Kickoff Meeting

October 28, 2026

Presenters



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Agenda

- Project Overview
- Puyallup Flood Mapping History
- Key Study Elements
- Community Engagement
- Levee Analysis Procedures
- How Maps are Used
- Next Steps

Project Overview

Chris Long

Project Overview

- New flood study underway!
- Clearly define the current flood risk on Lower Puyallup River
- Publish new comprehensive mapping in coordination with FEMA
- Utilize the flood maps for a resilient community



Puyallup Flood Mapping History

Dennis Dixon

Puyallup Flood Mapping History

- Started remapping for Digital Flood Insurance Rate Map (DFIRM) in 2002
  - 2004 -Fife began regulating to draft mapping
  - 2005 – Spring -County began regulating to draft mapping
  - 2005-Fall- FEMA gives 10 years to do levee improvements or FEMA will remap as broad floodway
  - 2007 - Prelim DFIRM out for public comment
  - 2011- March - Levee policy changed and LFD delayed
  - 2017 – DFIRMs issued but Lower Puyallup secluded from them

FEMA has updated the levee analysis and mapping procedures for non-accredited levees. Until such time as FEMA is able to initiate a new flood risk project to apply the new procedures, the flood hazard information on the aforementioned FIRM panels that are affected by the Carbon River and Puyallup River levees are being added as a snapshot of the prior previously effective information presented on the FIRMs and FIS reports dated 8/19/1987, 5/1980, 9/27/1985, and 6/1/1983. As indicated above, it is expected that affected flood hazard data within the subject area could be significantly revised. This may result in floodplain boundary changes, 1-percent-annual-chance flood elevation changes, and/or changes to flood hazard zone designations.

*Excerpt from 2017 FIS

Puyallup Flood Mapping History

- Created the Lower Puyallup Executive Task Force to address levees and flood risk
- Repurposed a USACE General Investigation to address the Lower Puyallup
- Created the Flood Control Zone District to have funding for major flood mitigation projects
- Flood modeling for the Milroy Bridge replacement and Canyon Road Extension project

Poll 1













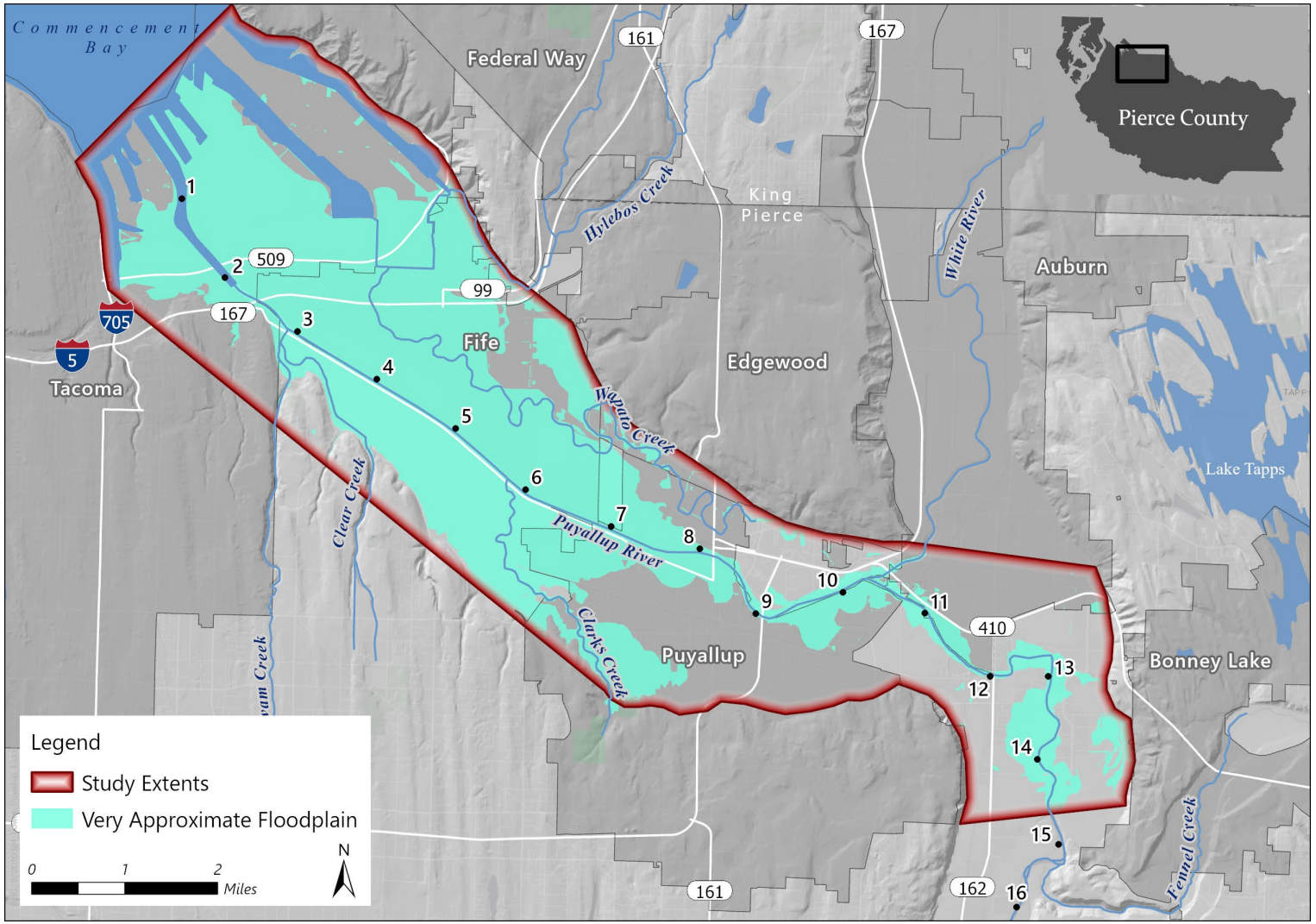
Key Study Elements

Chris Long

Key Study Elements

- Coordinate with US Army Corps of Engineers on Mud Mountain Dam's abilities/limitations
- Update and develop technically defensible flood discharge
- Utilize current (2026) surveys of the river and floodplain
- Levees not accredited and won't be seeking accreditation
- Perform levee analysis modeling in accordance with FEMA policy
- Two-dimensional hydraulic modeling
- Floodway development coordinated with local communities

Flood Study Extents



Flood Study Benchmarks

Tasks	Approximate Schedule											
	2026				2027				2028			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Ground and Bathymetric Survey												
Hydrologic Analyses												
Hydraulic Modeling												
Floodplain Mapping												
Preliminary and Final Floodplain Documentation												
Stakeholder and FEMA Coordination and Public Meetings												

Community Engagement

Laura Algeo

Community Engagement

This is a large project crossing multiple jurisdictions. Enhanced outreach and engagement is as follows:

- Community Officials meetings
  - Meetings approximately every 3 months
- Public Outreach meetings
  - Meetings approximately 1 per year
- Local Levee Partnership Team
  - Meetings approximately every 3 months
- Web/Social presence to share updates



Participating Agencies in the Local Levee Partnership Team

- Pierce County (SWM, OCE)
- Fife
- Sumner
- Puyallup
- Tacoma
- Seattle District USACE
- FEMA
- WSDOT
- Port of Tacoma
- Sound Transit
- Puyallup Tribe
- Railroad (UPRR, BNSF)
- WA Ecology

Website and Digital Resources

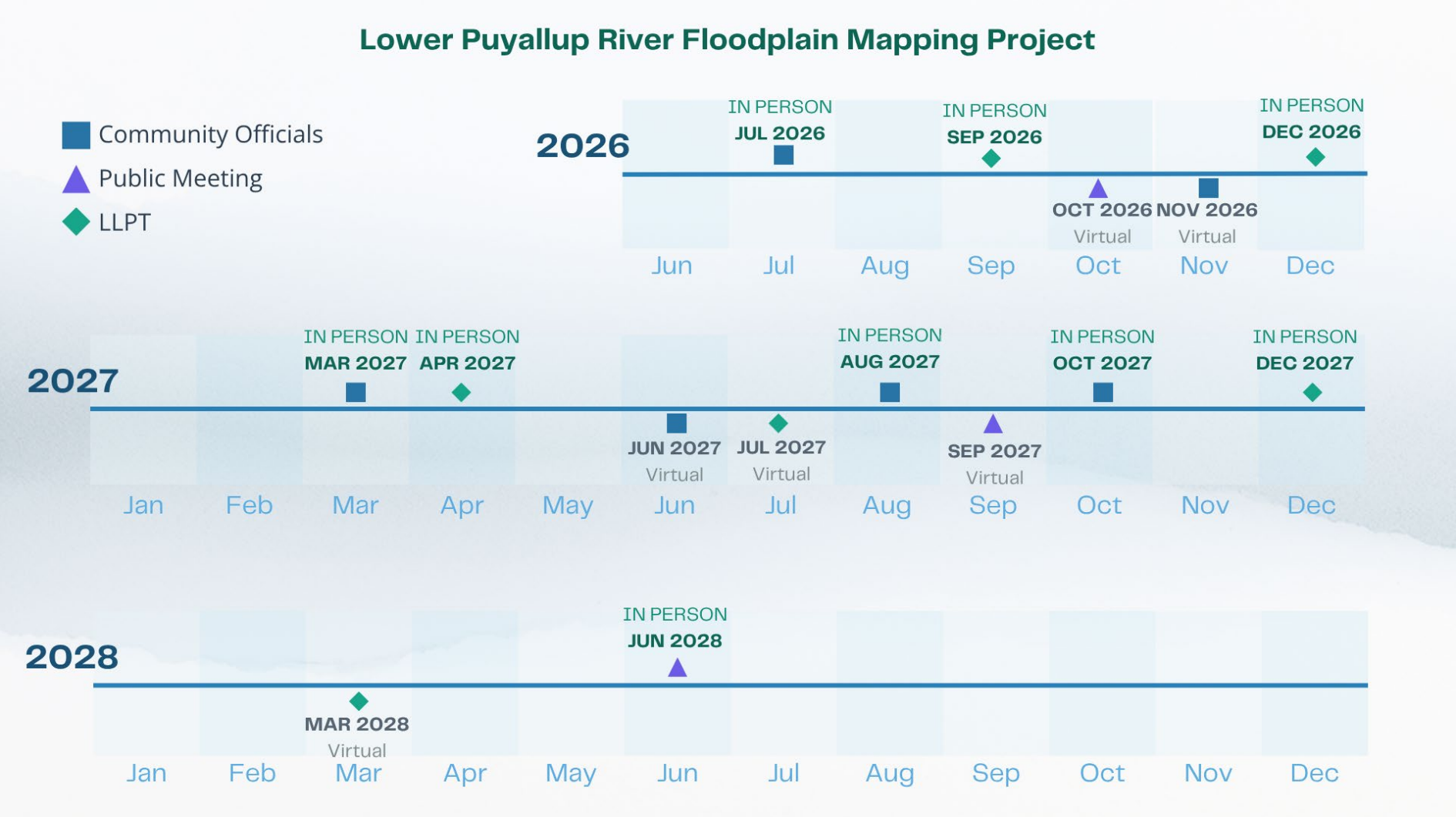
Web/Social presence to share updates

- Learn about Floodplains and how they are defined
- Learn more about History of Flooding
- See Project Status updates



Puyallupriverfloodmapping.com

Engagement Schedule



Poll 2

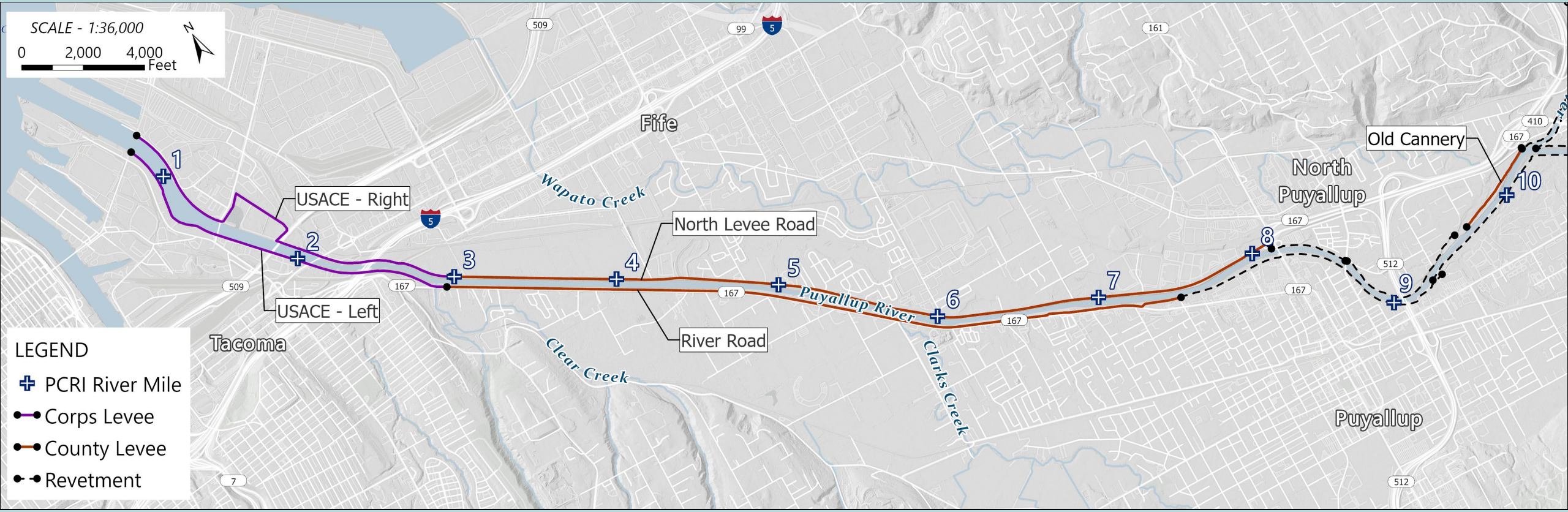
Levee Analysis Procedures and How the Maps Will Be Used

Chris Long and Laura Algeo

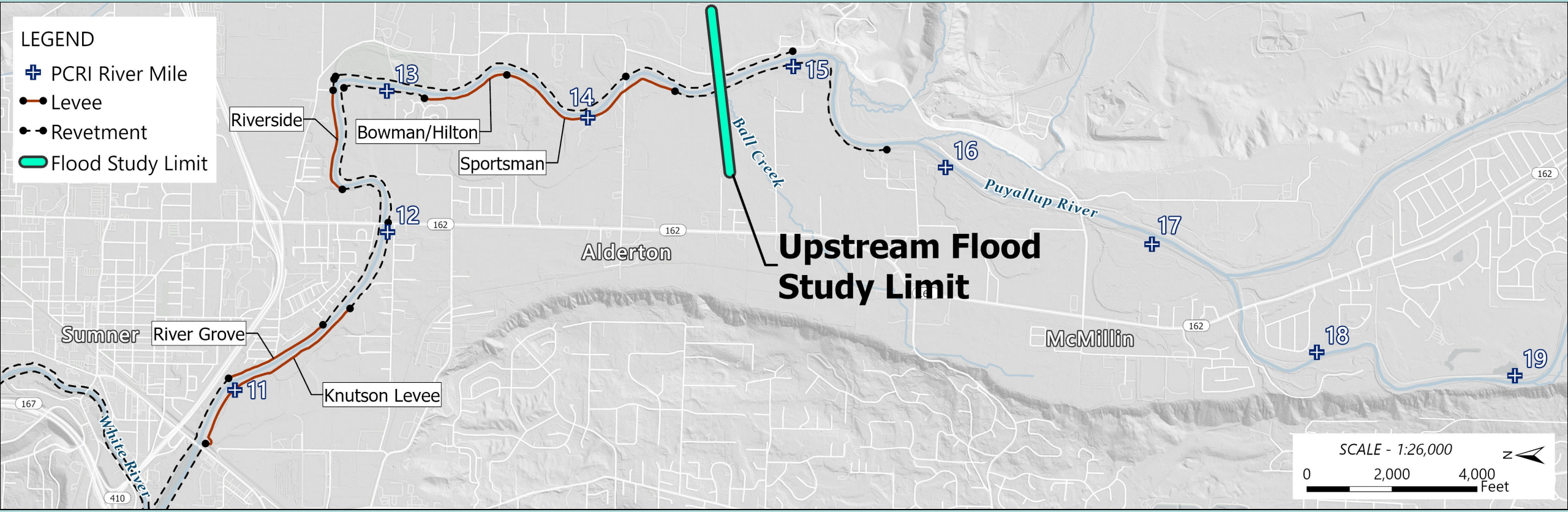
Puyallup Levee Construction



Levees and Revetments



Levees and Revetments



Levee Analysis Procedures

- Puyallup River levees are:
  - Hydraulically significant
  - Non-accredited
  - On both side of the river

- LAMP - Levee Analysis and Mapping Procedure
  - Originated about 2011
  - More refined approach to modeling/mapping flood hazards
  - Includes interactive coordination process with key stakeholders

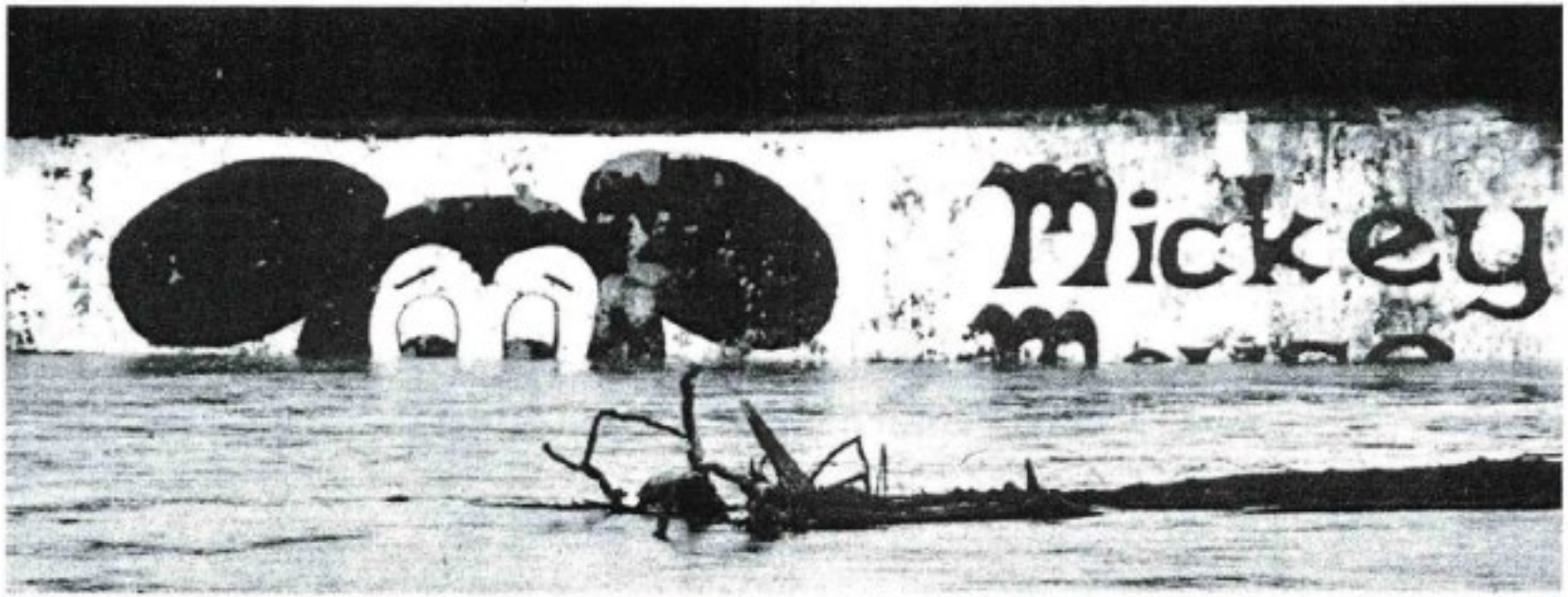


How Maps are Used and Affect Insurance Rates

- Flood Insurance Rate Map (FIRM) updates drive:
  - Where development needs to avoid flood risk
  - How buildings are built (Local Building Codes and Ordinances)
  - Where flood insurance is required
  - Flood mitigation grant support

- FIRM updates do not change:
  - Insurance Rates

Poll 3



Puyallup River's Mickey Mouse is up to his eyeballs in flood water



Next Steps

Chris Long and Dennis Dixon

Next Steps

- Stay tuned for updates on the project website
  - Puyallupriverfloodmapping.com
- Expect another public meeting in a year with project updates
- If you have questions, check in with your local officials OR…

Conclusion and Q&A

We would love to hear from you!



Dennis Dixon - Pierce County
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