

November
2025



RURAL WA WATER INFRASTRUCTURE FINANCING WORKSHOP



PRESENTED BY :

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PRESENTED TO :

Rural Water Infrastructure Financing
Convening 2025

www.lamdi.co

CASE STUDY OVERVIEW



EMPATHIZE: GROUNDING IN TIETON'S REALITY

03	_____	HISTORICAL CONTEXT
04	_____	YTID MAIN CANAL
05	_____	SIGNIFICANCE
06	_____	WILDFIRE IMPACTS
07	_____	RESPONSE
09	_____	CURRENT CONDITIONS
10	_____	ONGOING RISKS
11	_____	PLANNING FOR THE FUTURE
12	_____	DEFINING THE NEED
13	_____	CALL TO ACTION
14	_____	CLOSING - Q&A



Historical Context ↗

The YTID main canal has been serving west Yakima and the towns of Tieton and Cowiche for over a century.

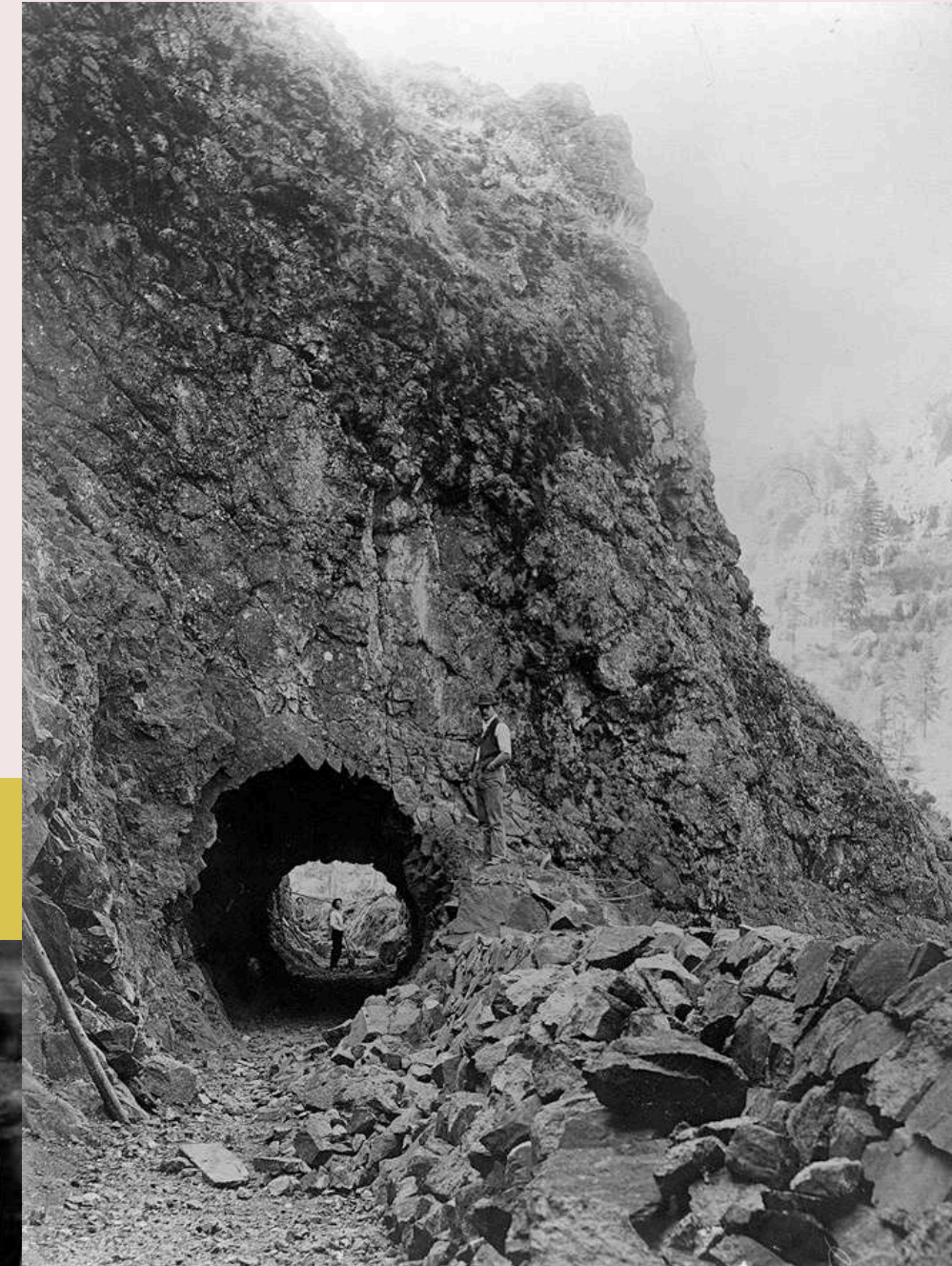
Engine of Yakima's robust agricultural economy. This artery has conveyed the "lifeblood" of the community since 1910.

Supports agriculture, residential, environmental projects, hydropower, and community fire suppression systems.

YTID Main Canal ↗

12-mile-long canal consists of 9 miles open concrete flume, and 3 miles of tunnels.

The upper half traverses steep forested foothills of the Cascades. The lower half sits high above the Tieton River along basalt cliffs and talus slopes.



Community & Economy



- Annual crop revenue is estimated at over \$700 million, supporting thousands of local jobs.
- Overall economic impact from a catastrophic canal failure and prolonged loss of water supply has been estimated at over \$3 billion.

- Public Safety – Fire Suppression.
- Environmental impacts, project setbacks.
- Hydropower.



Wildfire Impacts



In July 2024, Retreat wildfire burned nearly 50,000 acres, engulfing the entire 12-mile-long canal. Causing extensive damage to the infrastructure and destabilizing the environment surrounding this critical lifeline to the community.

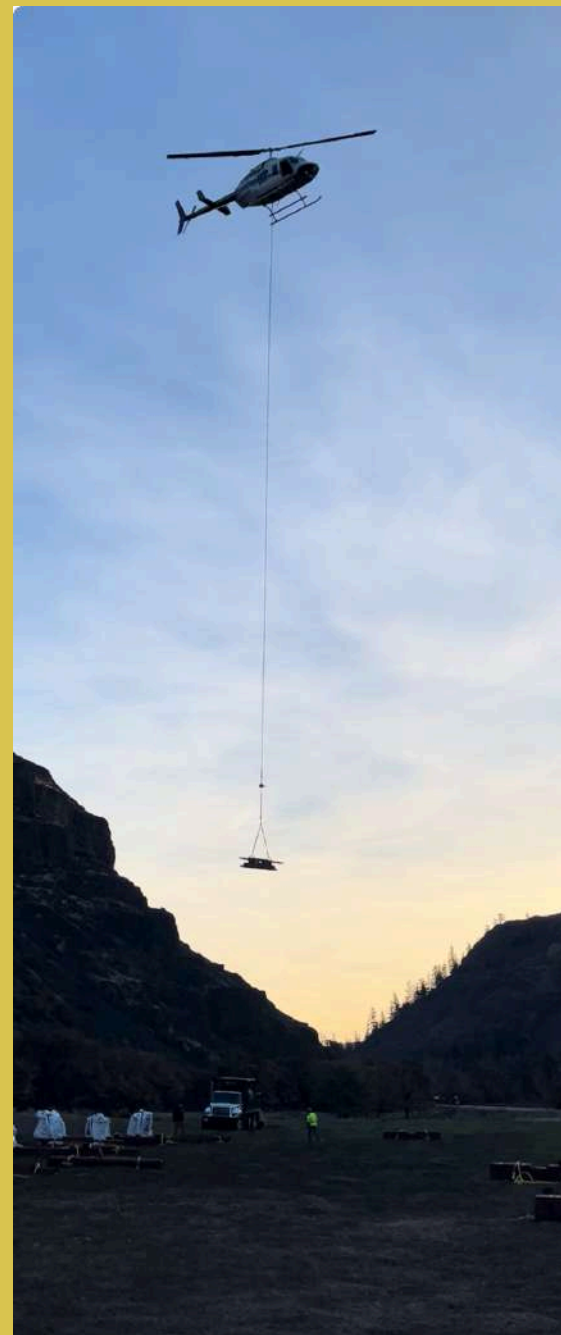
Rolling boulders and falling trees. Timber structures and supports lost. Extensive structural damage inside and out of the canal.

Bridges lost, coatings and lining destroyed, and key structures at risk of debris flows and flooding.

Communities highly vulnerable and public safety is at risk.



Response ↗



- Monitoring system installed. Flow stations, cameras, rain gauges, and flash flood detectors.
- Drainage feature improvements.



- Post-fire coordinator and emergency response teams dispatched.
- Reports generated highlighting risk and vulnerable areas. Jacobs Engineering and YTID went to work using this data.
- Engineers, contractors, and YTID crews have worked tirelessly to preserve the integrity of the canal and stabilize the highly unstable post-fire environment.
- Emergency preparations.



13,000LF canal covered

Yakima-Tieton Irrigation District (YTID)



Tieton Canyon ↗

Yakima-Tieton Irrigation District (YTID)



Current Conditions ↗

2024 Retreat Wildfire severely damaged the 115-year-old canal.

Internal lining and external coatings were destroyed, resulting in +2,000 documented leaks in 2025. Many larger leaks required emergency shutdowns to repair.

Footpath around canal sloughing and separating in areas and tree holes posing unknown challenges to retaining walls and sub-base.

Post-fire soil erosion, flooding, debris flows, and landslide risk remain high.

Operations restricted.



Yakima-Tieton Irrigation District (YTID)

2025 season - early shutdown for repairs and ongoing mitigation.

- Debris flows
- Landslides
- Hazard Trees
- Trail Instability



Ongoing Risks

2025

- Debris fences being installed in high-risk locations.
- Trail sloughing and separating from canal.
- Thousands of burned trees litter the hillsides above infrastructure.

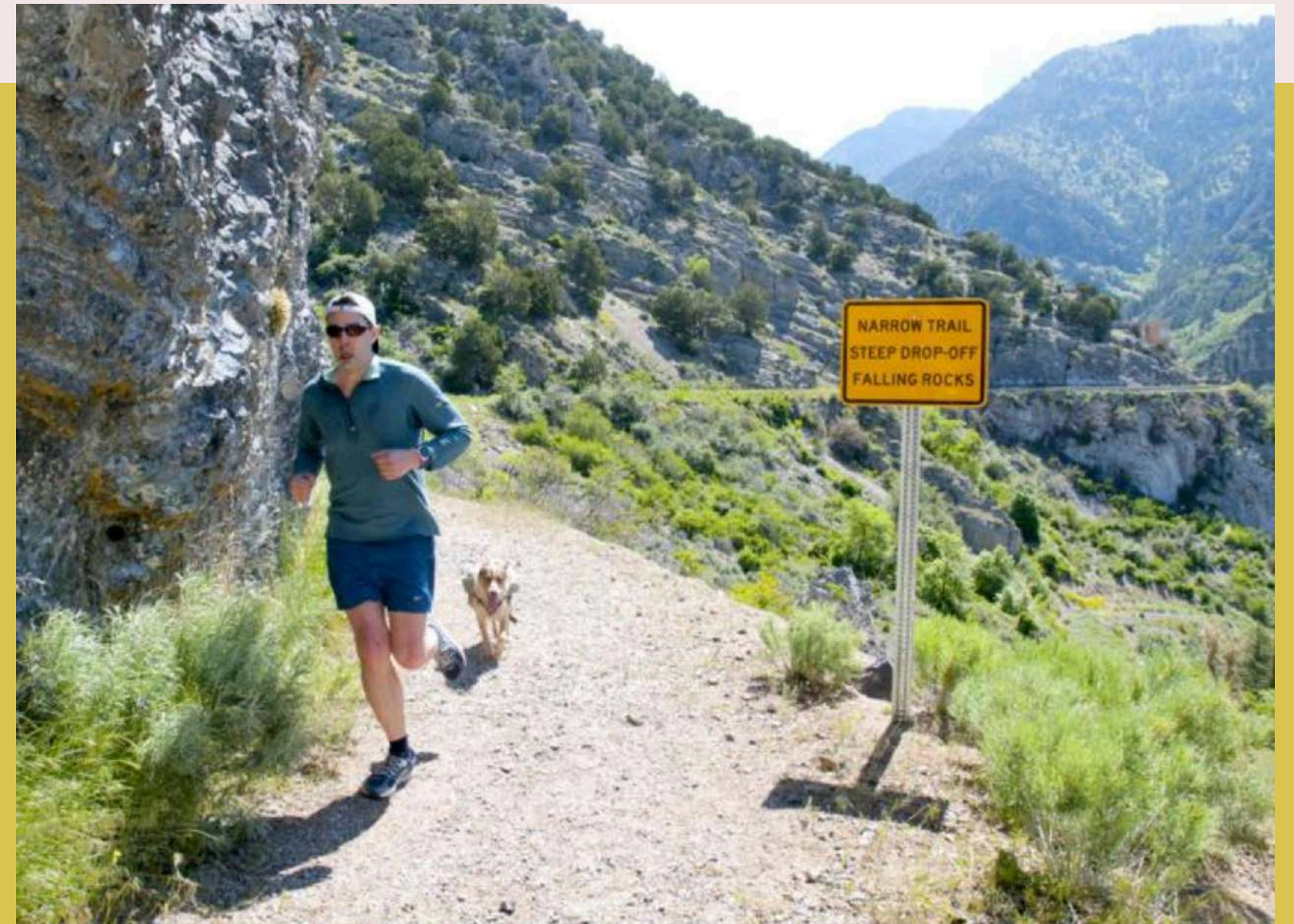


Yakima-Tieton Irrigation District (YTID)

Planning for the Future ↗

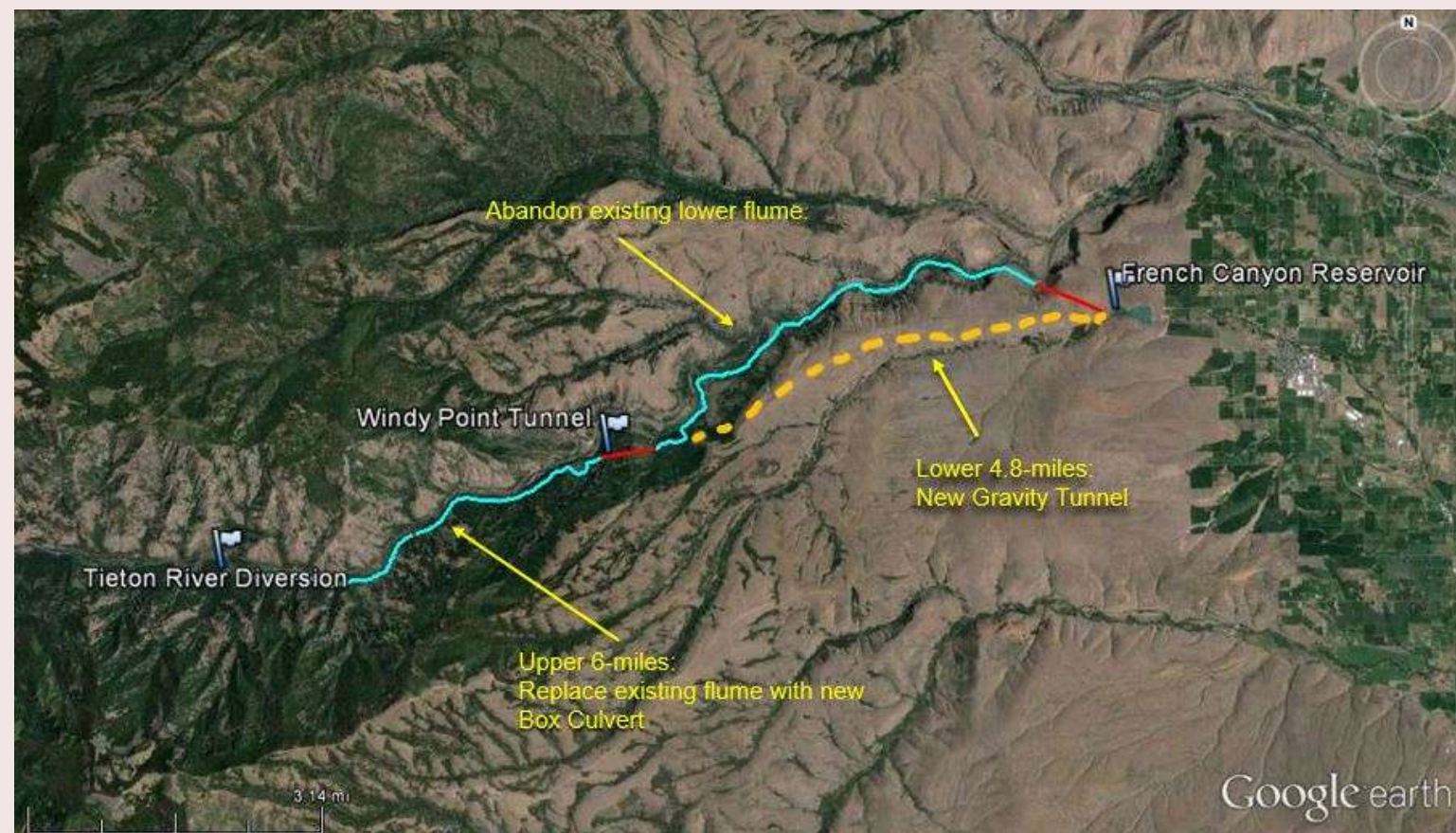
- 10-year Appraisal Study completed. Climate resilient solution identified.
- Project planning, permitting, and design initiated.
- Actively pursuing state and federal funding partnerships.
- Ongoing engagement with media and elected officials.
- **Ensuring reliable water supply for future generations.**

2025



Yakima-Tieton Irrigation District (YTID)

DEFINING THE NEED ↗



- Avoiding disaster, ensuring resilience.
- **Maximum local commitment = \$80M, requires community approval**
- Contractor engagement initiated
- Funds secured, applications submitted



Solutions identified:

- **Plan A (100yr solution)** = \$240M, 6 years to construct
 - Upper canal – Concrete enclosed Box Culvert
 - Lower canal – New 4.8mi Gravity Tunnel
- **Plan B (80yr solution)** = ~\$200M, 6 years to construct
 - Steel lining Upper/Lower
- **Plan C – (20yr solution)** = \$80M, 5 years to construct
 - Concrete polymer liner – Upper/Lower
 - Compounding problems in 30yrs
- **Plan D – (no action)** = imminent failure, community at risk

Phased construction flexibility

Not asking for handout, rather partnerships

Call to Action



Goal: Replace the canal with a modern box-culvert and tunnel solution. Climate resiliency, long-term reliability, economic and environmental stability.

Brainstorm ideas to identify creative solutions to funding.

Leverage relationships. Influence political partners to collaborate on a national success story.

Success ensures community stability.

Develop innovative financing models for critical water infrastructure.



Q & A

What did you feel or learn about the human stakes?
2-min silent reflection → popcorn share.

- Whose lived experience do we need to center?
- What happens to families when the tap goes dry?
- Who isn't usually at this table?

For additional questions:

Contact Travis Okelberry okelberry@ytid.net



Design Thinking Workshop

12:55 p.m. - 2:30 p.m.



Please breakout into small groups of 4-5

Define - Clarify the Challenge ↗

12:55 p.m. - 1:05 p.m. (10 min total)



Each table brainstorms as a group (using flipcharts on table) - 10 mins:

“How might we help Tieton achieve safe, reliable, and equitable water service within 18 months?”

Ideate: Generate Solutions - Round 1

1:05 p.m. - 1:25 p.m. (20 min total) ↗



Round 1 - 5 minute

(1:05 p.m. - 1:10 p.m.)

Individual silent brainstorm , one idea per sticky note, use as many stickies as you'd like!

Ideate: Generate Solutions - Round 2



Round 2 - 5 minutes

(1:10 p.m. - 1:15 p.m.)

Group and label themes (i.e. finance tools, TA, partnerships, governance)

Ideate: Generate Solutions - Round 3



Round 3 - 10 mins

(1:15 p.m. - 1:25 p.m.)

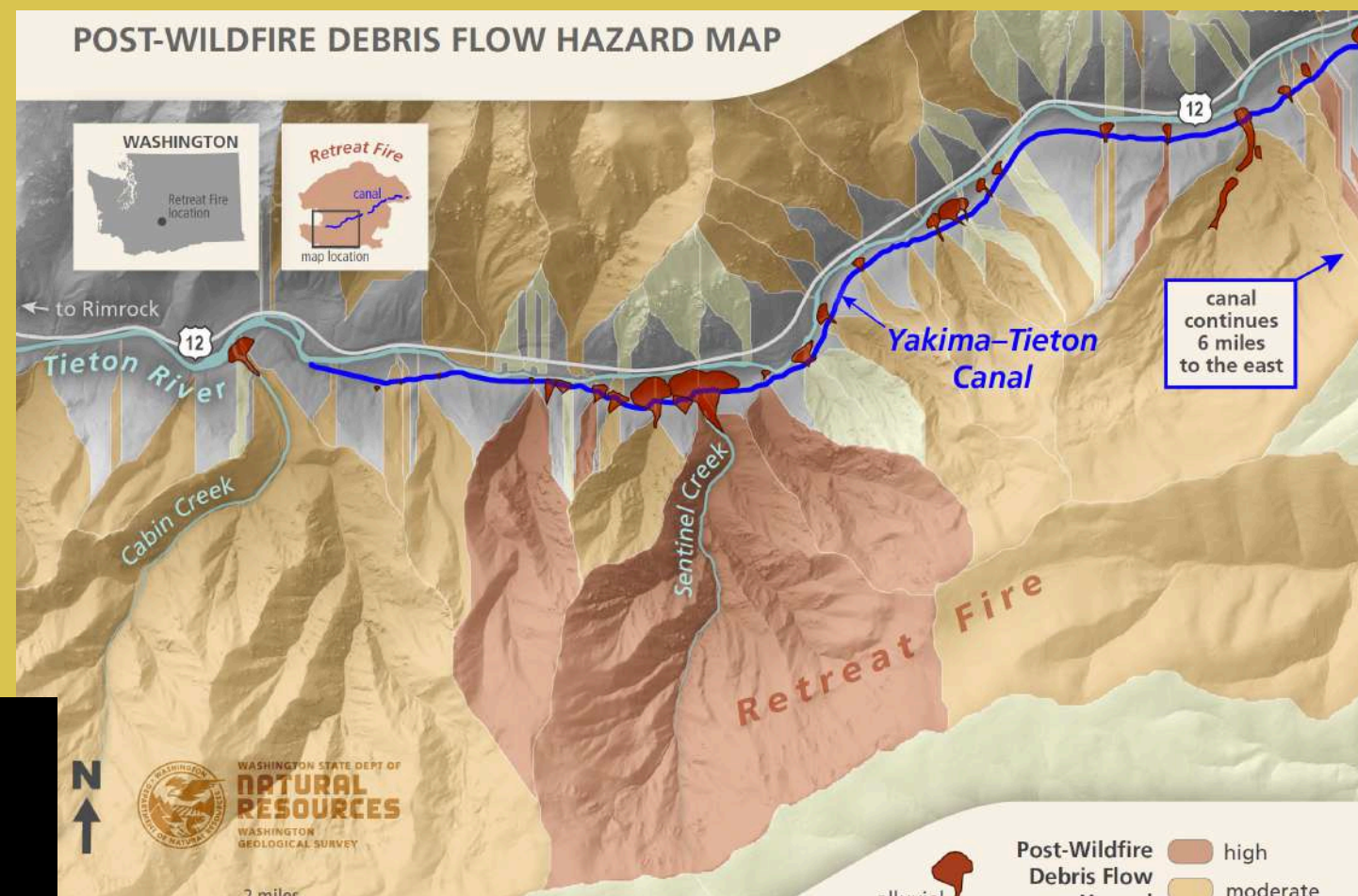
Vote (3 dots each) on top 3 ideas to prototype.

Prototype: Build the Concept (20 mins)

1:25 p.m. – 1:45 p.m.



Choose one of the ideas you've voted on and define the 180-day "minimum viable project."



- If you had \$100K and six months, what would you test?
 - How could we show this works, one measurable outcome?
 - Sketch the flow: who pays whom, when, for what.
- Please feel free to provide visuals (stick figures count!), sketch flow of funds, partners, milestones.*



Commit: Who's on the Field? (20 mins)

1:45 p.m. – 2:05 p.m.



Table identifies 2–3 immediate actions (what we can do in the next 30 days).

1. What's one action you personally can take?
2. Who else needs to hear this?
3. What would make you proud to see if we were to convene one year from now?

Nominate one spokesperson for report-out.



Report-Out + Harvest (25 mins)

2:05 p.m. - 2:30 p.m.



Each table gives 5 minute presentation with a 90-sec headline (5 mins/table): What we designed, why it matters, who's on the field.

Closing Reflection



What's one thing you learned and one thing you'll do after today?



THANK YOU

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