Summit Lake Research and Planning

Strengthening County-Watershed Connections

Summit Lake Community Meeting
December 9, 2025

Introductions

Thurston County Environmental Planning

- Long range planning
- Water and climate planning
- Water resources and land management

What are we doing here?

We want to plan for the protection and restoration of Kennedy Creek flows for fish and people.

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Big Picture

- **Data driven planning**: data collection and analysis identifies potential future action.
- **Examining the question**: the health of Kennedy Creek instream flow is determined by Summit Lake outflow; our data collection efforts will investigate whether existing and potential future consumptive domestic water uses are impacting Kennedy Creek.
- **Collect high quality data:** It takes time to collect good data for good decisions

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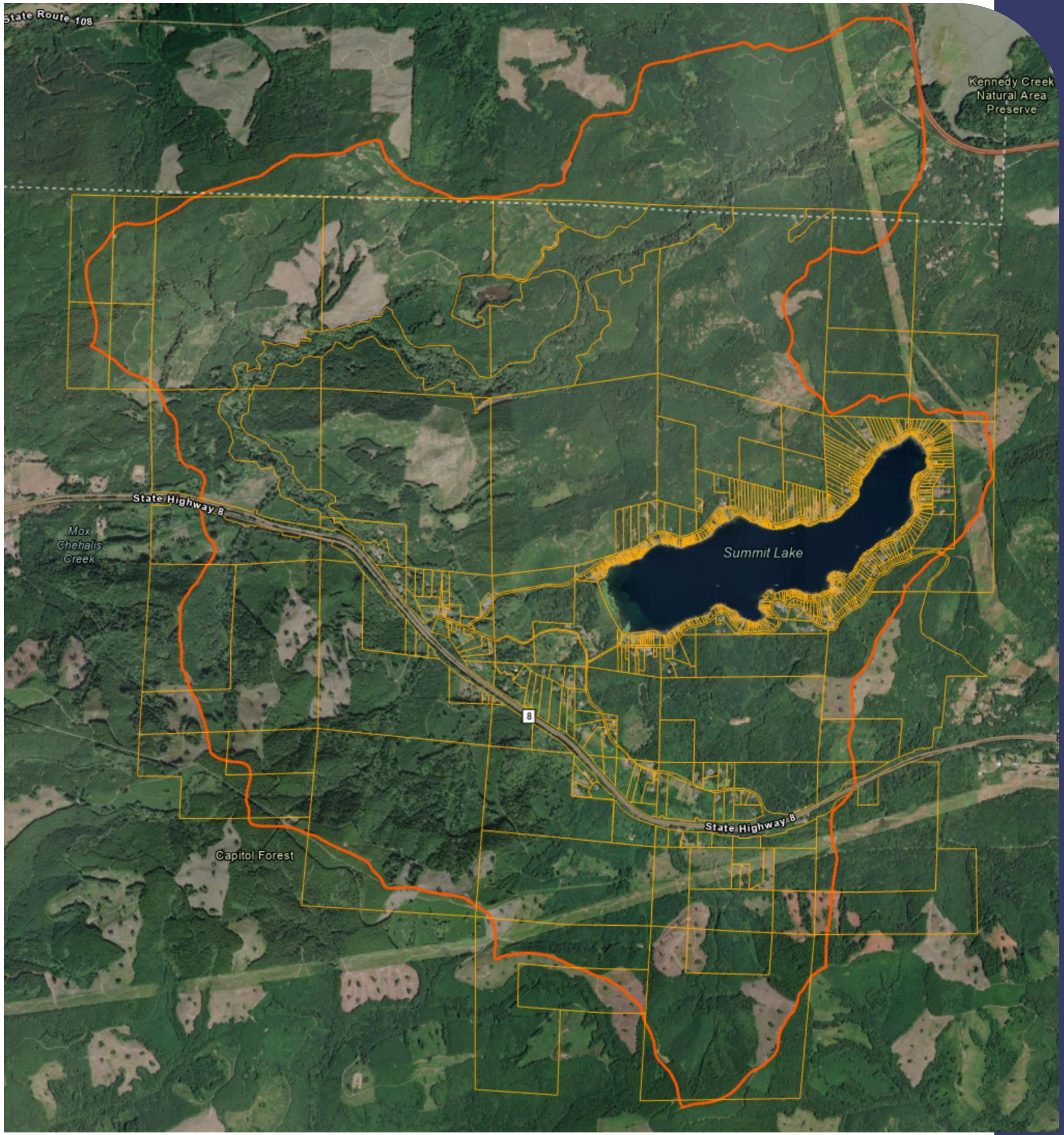
Kennedy Creek Basin

HUC-12 scale will define study area.

Predominate land uses in the basin include:

- Low-density residential
- Higher-density residential
- Forestry



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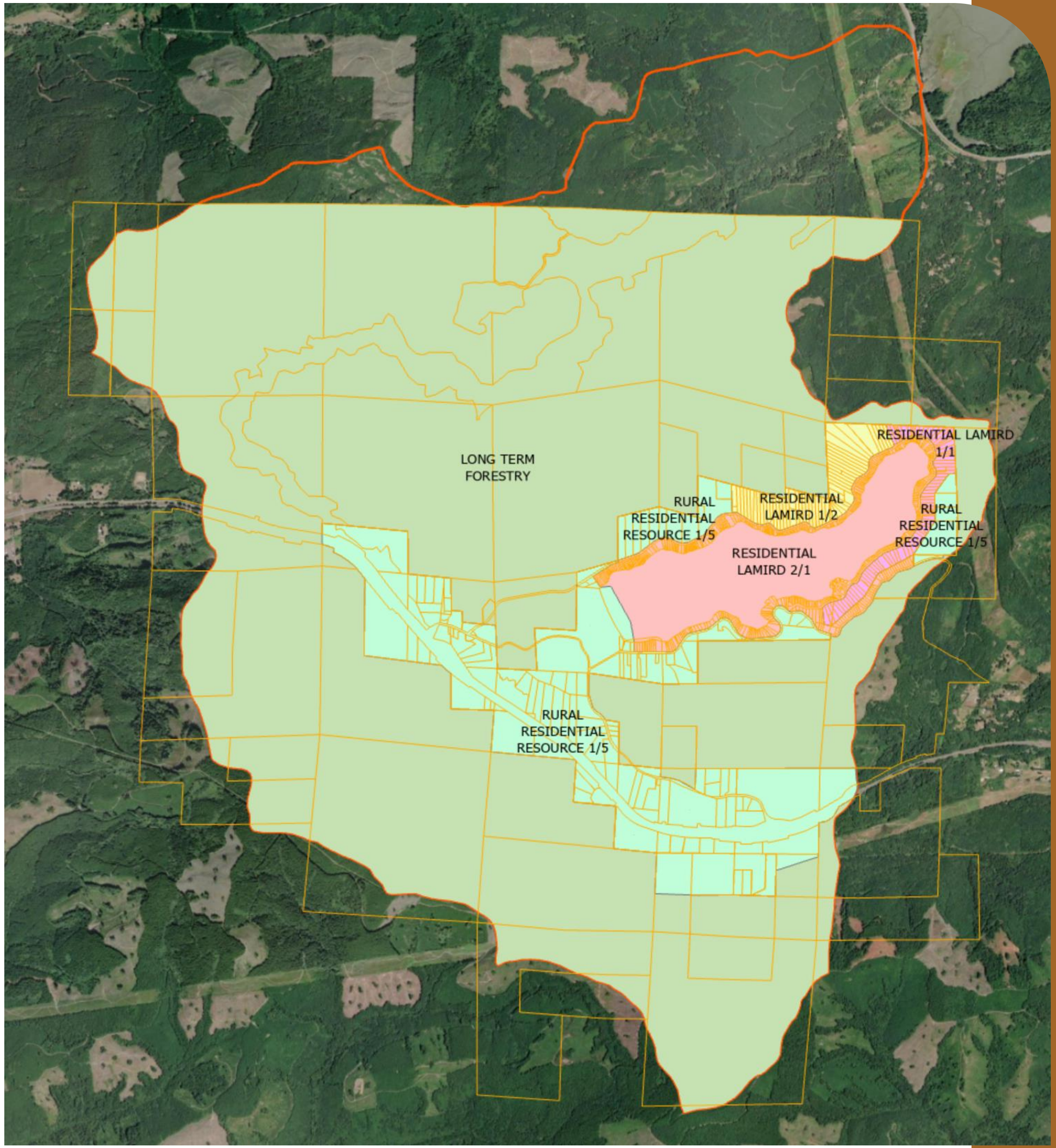
Land Capacity Analysis

- Evaluate potential for new homes in the basin.
- Consider zoning and existing infrastructure.
- Provides inputs for modeling the impacts of new development on instream flow.



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Field Sites

- Two permanently installed flow monitoring sites
- Summit Outfall Creek @ Summit Lk Shore Rd NW
- Kennedy Cr Mainstem @ Summit Lake Rd NW
- Stations will continuously monitor water level and temperature
- Monthly instream flow measurements

Stream monitoring site on Summit Lake Outfall Creek.

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Field Equipment

- Campbell Scientific Water-Level Radar
- Sutron Aquatemp water temperature sensor
- Sontek FlowTracker 2
- Acoustic Dopler Channel Profiler (ACDP)

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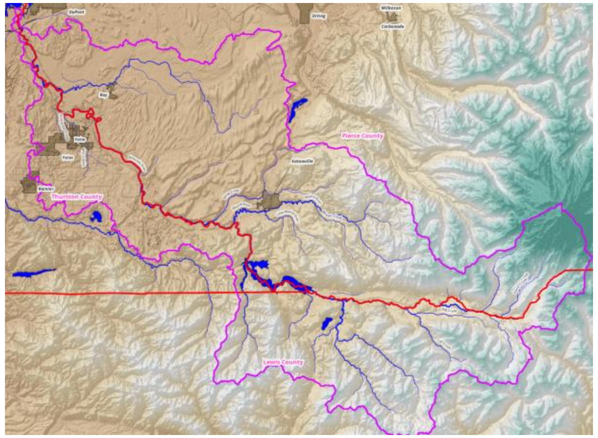
Put back what we take out…

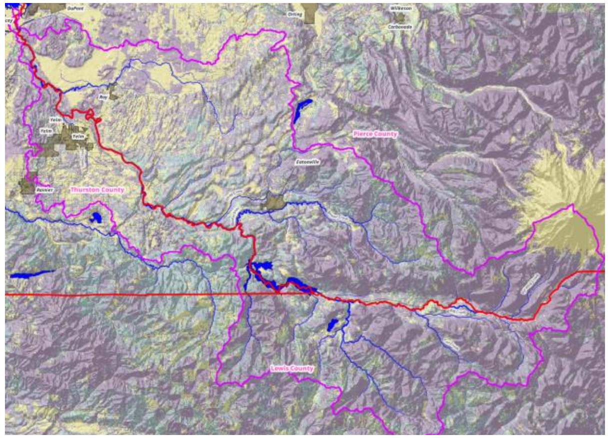
New Tools like VELMA for Testing of Future Scenarios

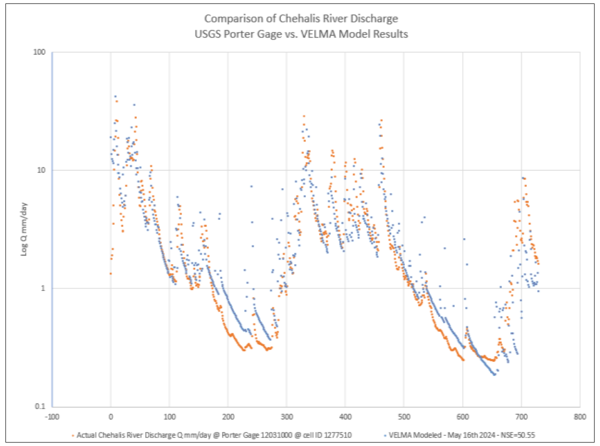
- Streamflow improvements for fish
- Land use changes
- Climate change effects
- Forestry options
- Water availability
- Flood potential

Whole-Watershed Approach

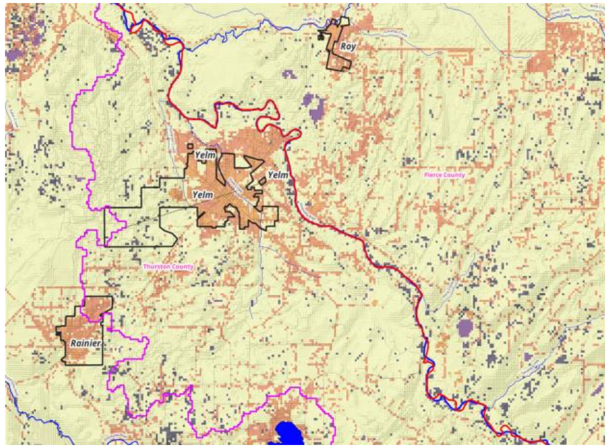


Forestry Options, Carbon Storage, Fire Risk





Water for Fish, Streamflow, Drinking



Land Use and Land Cover Effects

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The Path Forward

- Gather field data
- Complete land capacity analysis
- Create and calibrate model
- Model scenarios based on data, examining impacts of Summit Lake's supply to Kennedy Creek.

Exciting Update

We have the model! The VELMA model has been developed for Thurston County. Calibration for the Kennedy Creek subbasin will take place over the study period.

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Stay in Touch!

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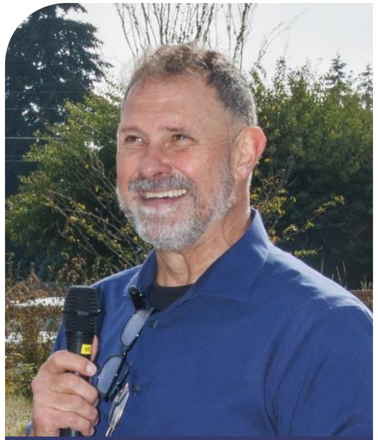

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Thank you!

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