

Anderson Valley Resilient Lands Symposium

*Streamflow and Water Management Strategies
For People, Farms and Fish*

October 15, 2022

*Monty Schmitt
The Nature Conservancy*



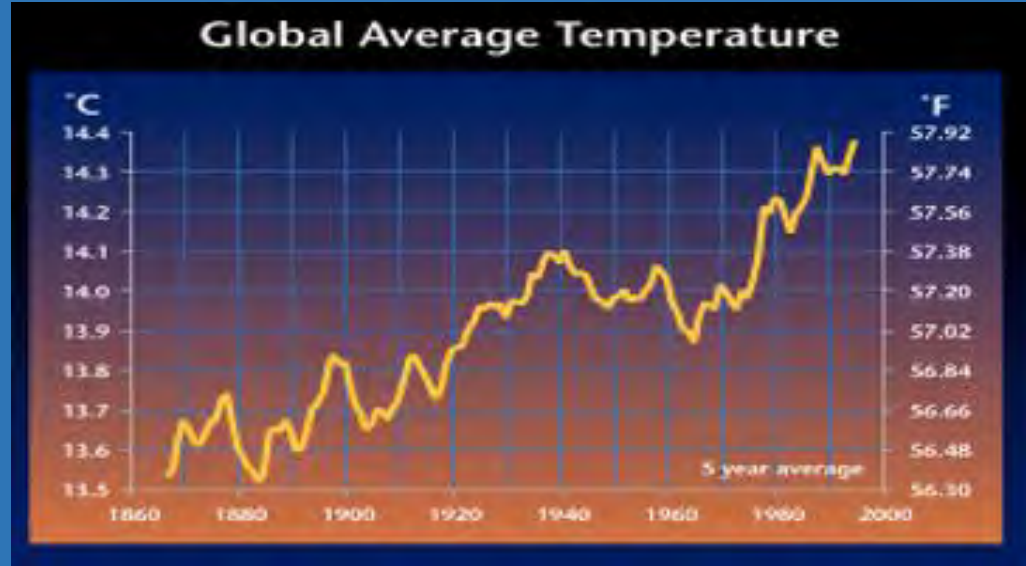
Navarro Flow Enhancement Partnership



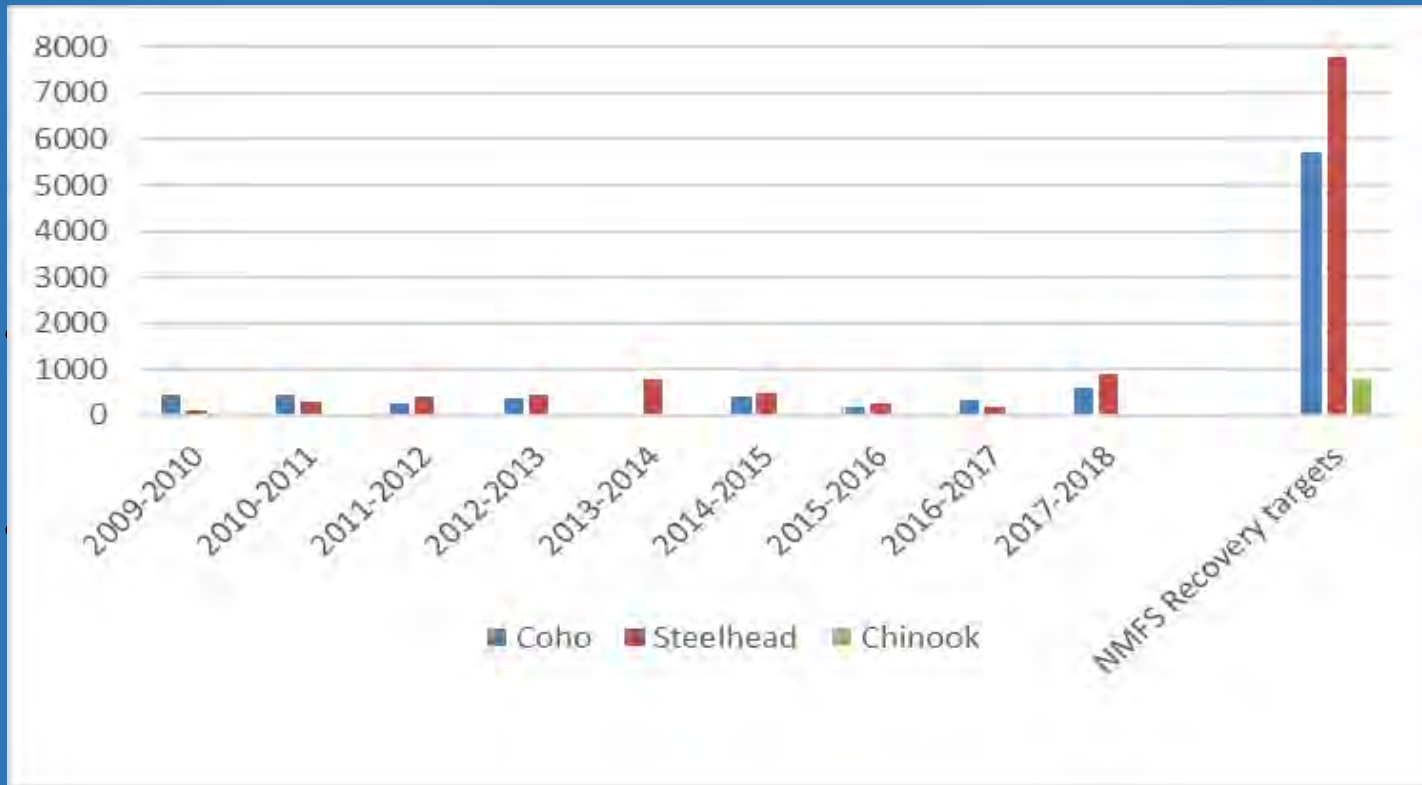
Our Goal:

Implement water management projects to restore streamflows and improve climate resiliency and water supply reliability for fish, farms and communities

North Coast water management challenges



Coho Recovery and Dry Season Baseflow



Fish Habitat Needs:

- Passage
- Spawning
- Juvenile Rearing –summer & fall

Water demand vs the timing of water availability

- Annual water use = 1,700 Acre-Feet
 - ***82% of all water is use in summer***

Average annual runoff = 240,000 Acre-Feet

- ***Human water need = ~ 1% of runoff***

The Solution

Reduce reliance on dry season and use wet season water to meet human needs

Is this the new normal?



Water management & streamflow enhancement project types

Management based



Irrigation efficiency



Tank/Pond storage



Coordinated diversion



Pond Flow releases

Process based



Groundwater infiltration



Floodplain reconnection



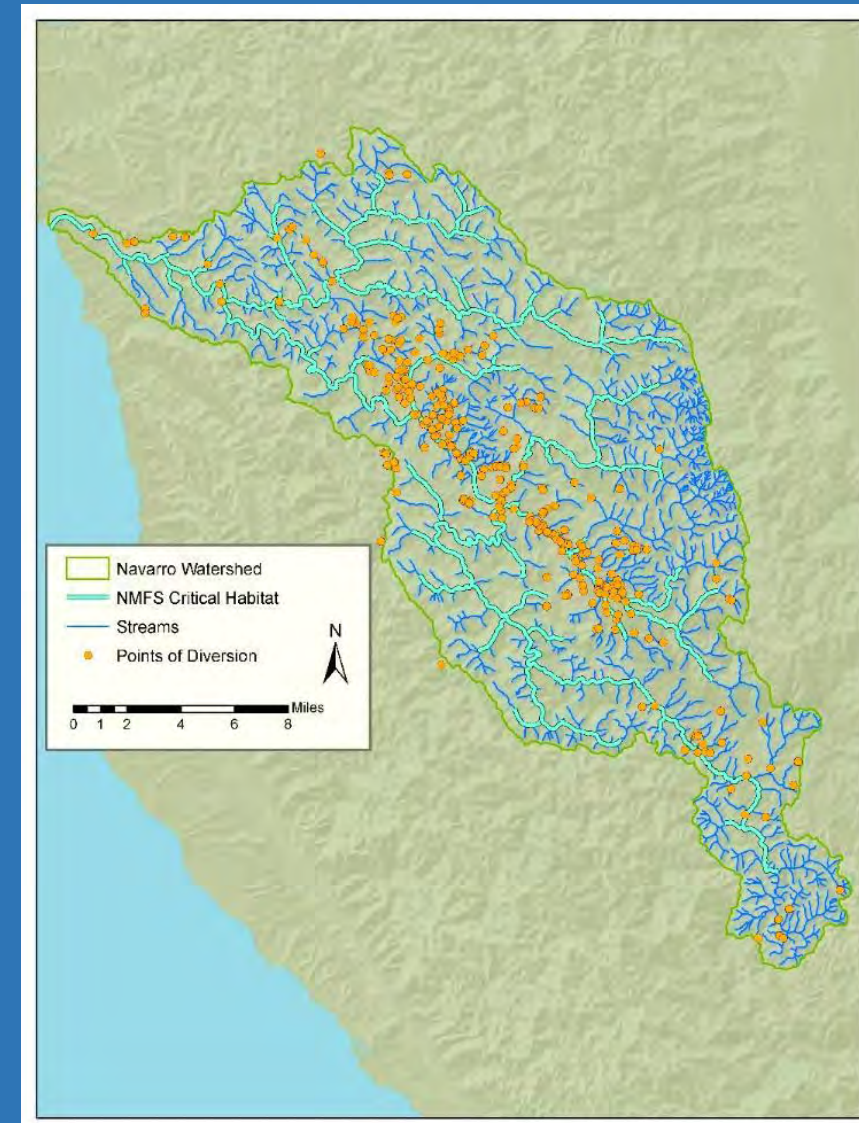
Prescribed grazing



Forest management

Challenges to increasing drought resilience:

- Water Rights
- Decentralized Water Supply Systems
- Pace and Scale of Implementing Projects



Collaborative Water Management

A watershed community-based approach

Collaborative Water Management

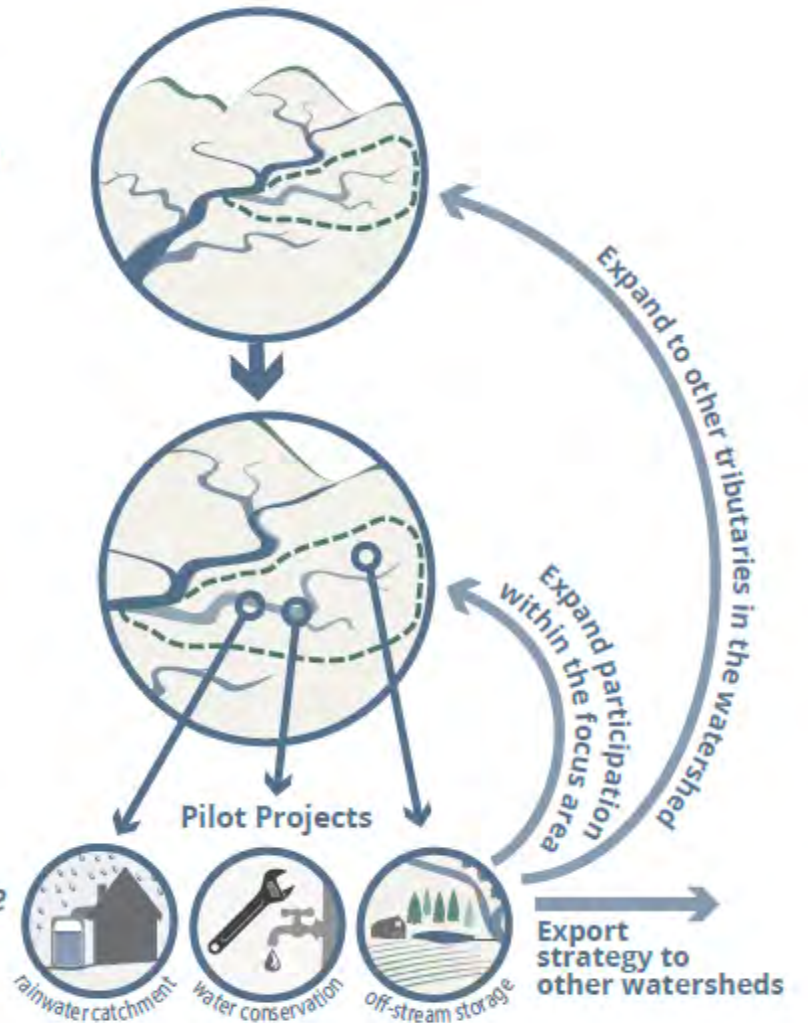
*A Guide to Enhancing Streamflow and Water Supply
Reliability in California's Rural Watersheds and Communities*



Phase 1
*Assess Watershed Condition
and Select Focus Area*

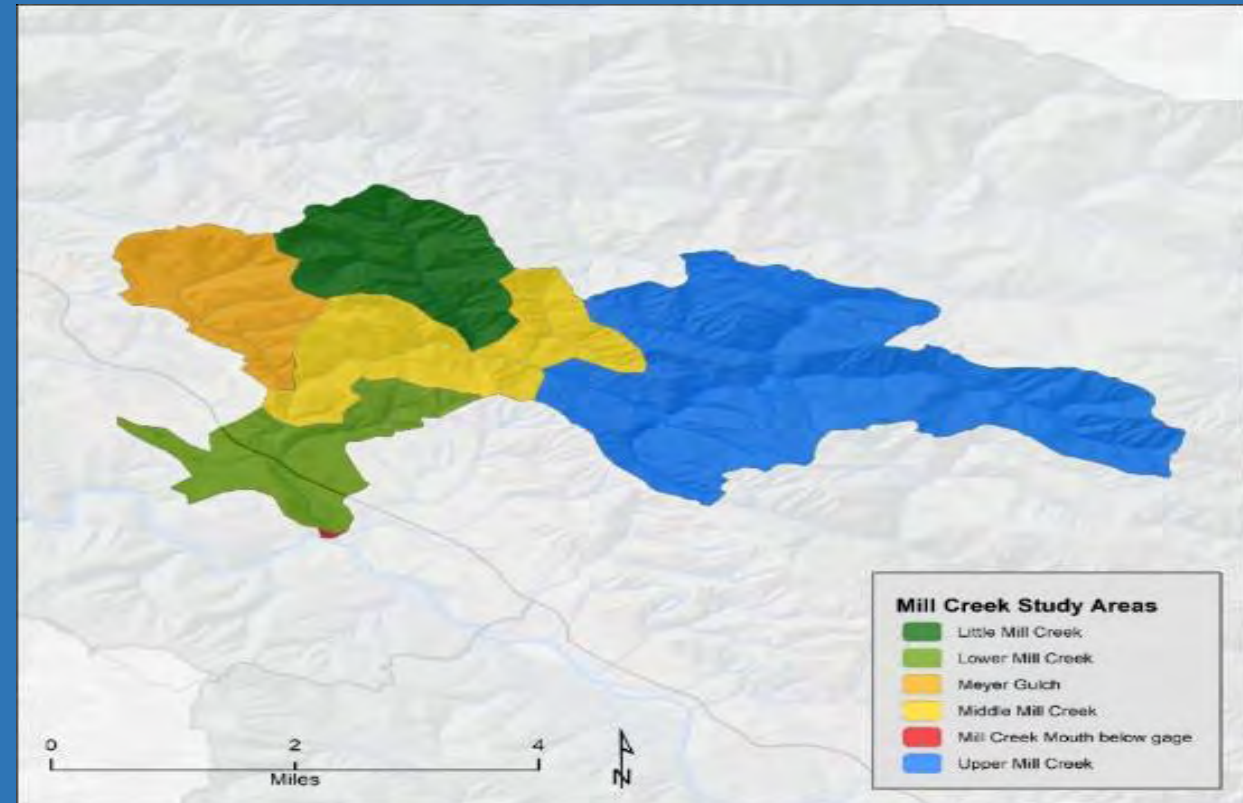
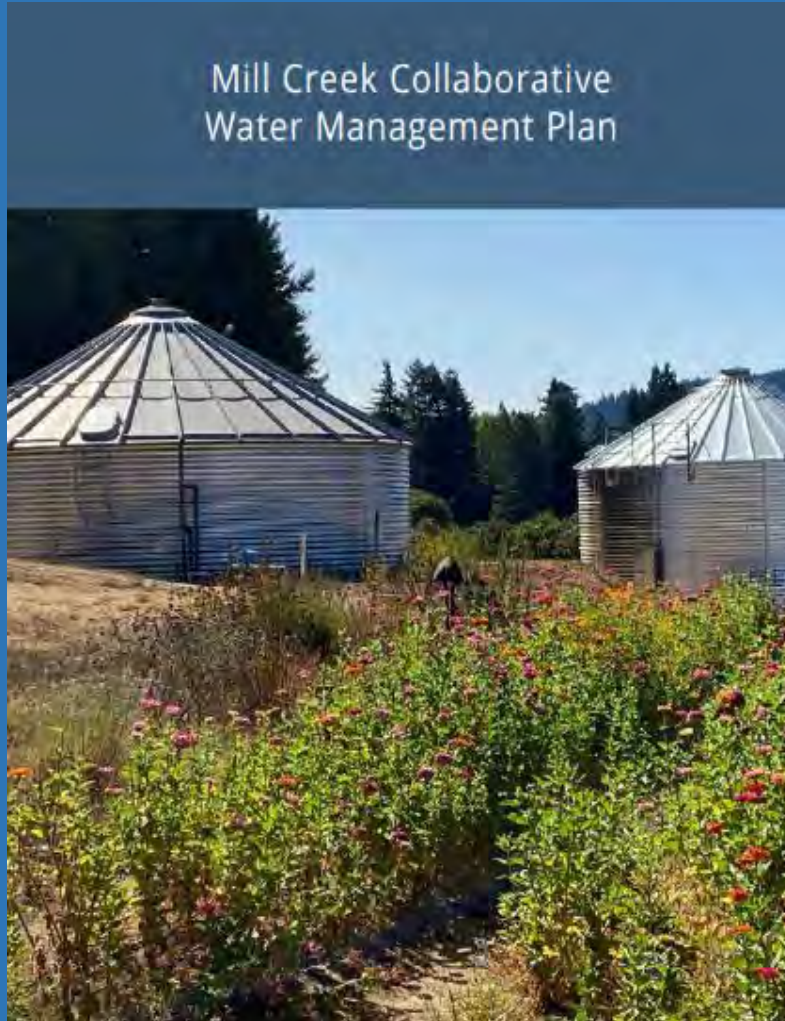
Phase 2
*Create a Collaborative
Water Management Plan*

Phase 3
*Implement the Collaborative
Water Management Plan*

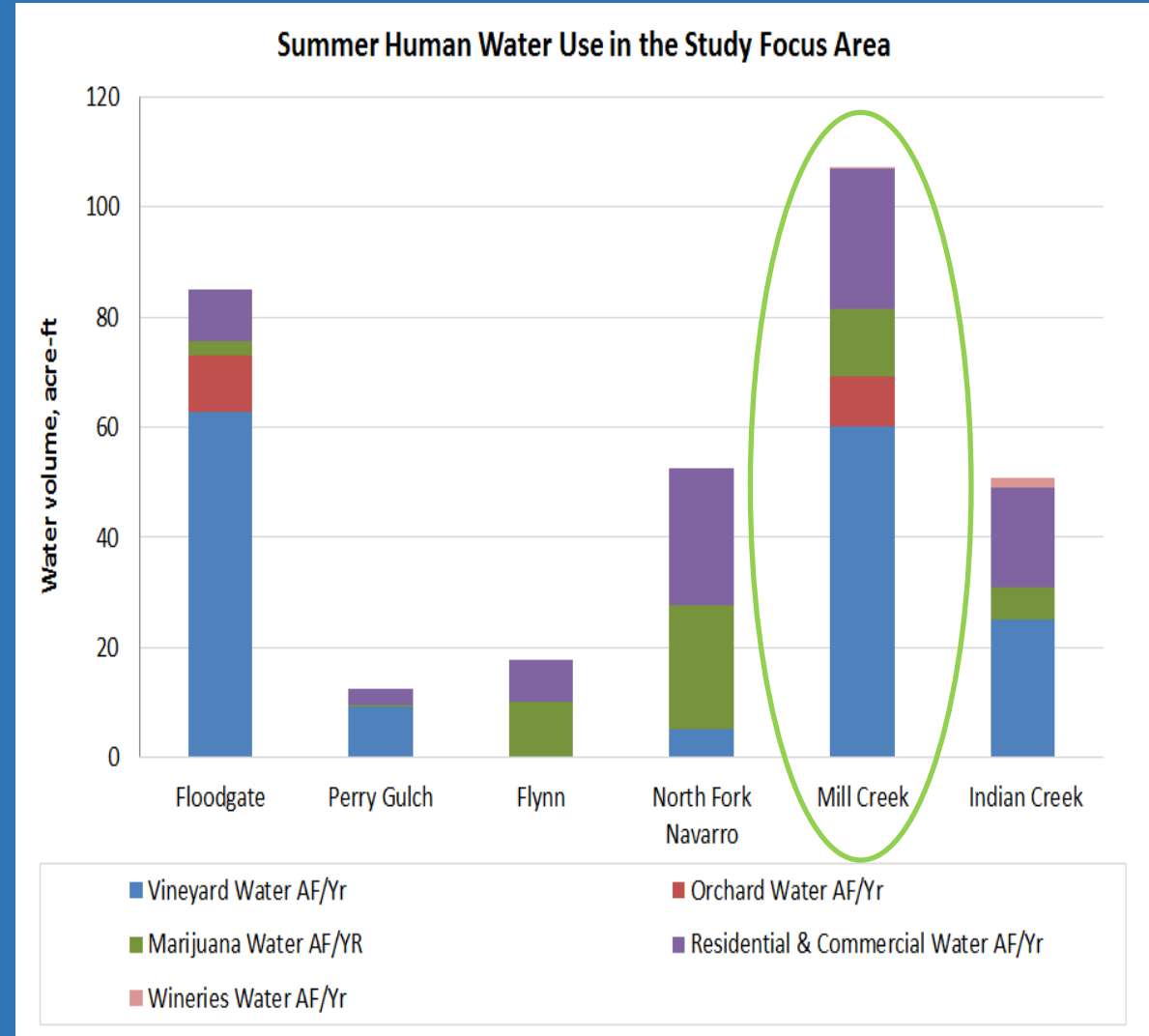
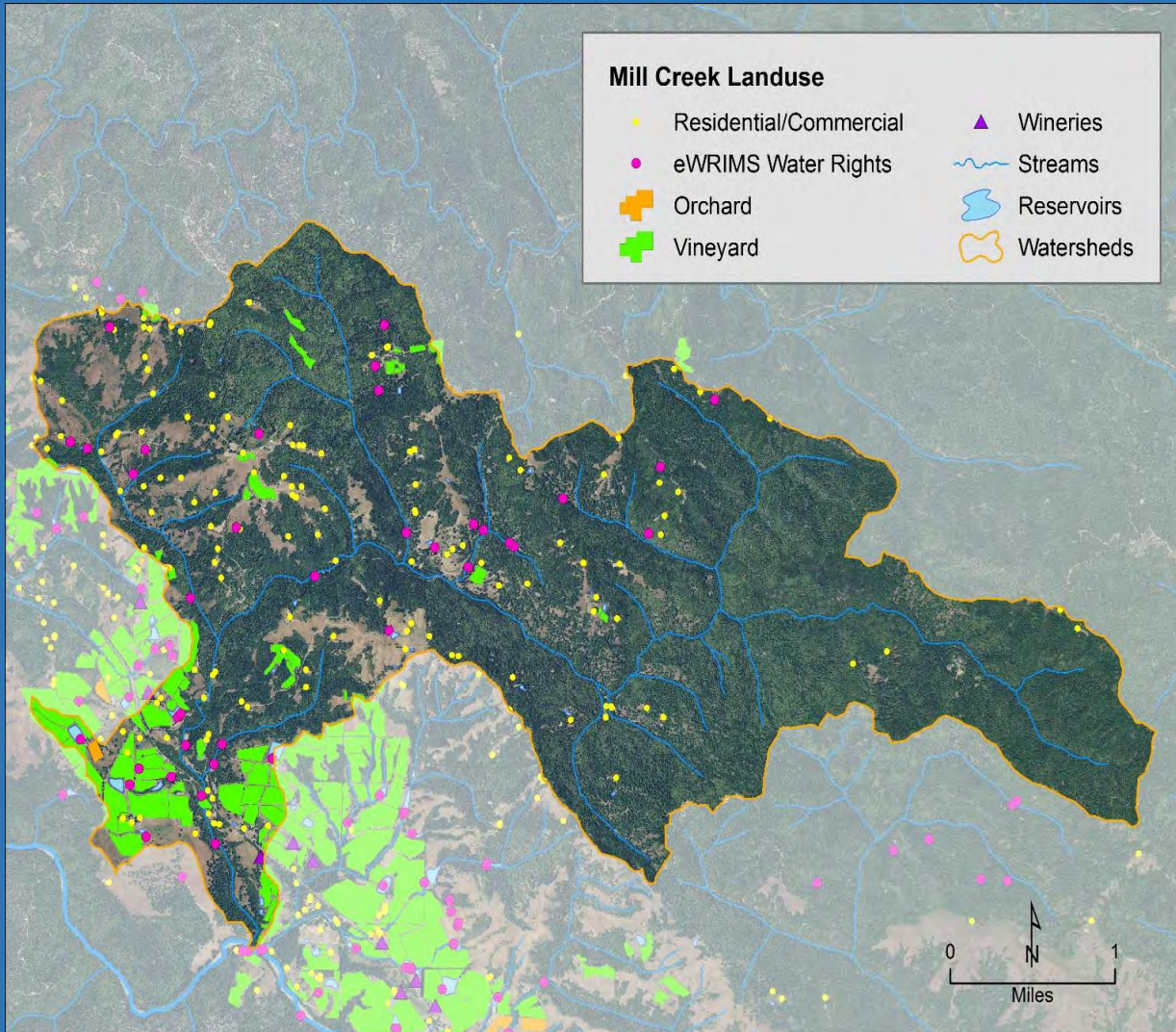


Mill Creek Collaborative Water Management Plan

1. Community outreach
2. Collected data and completed analyses
3. Developed CWM Plan
4. Implementation of projects



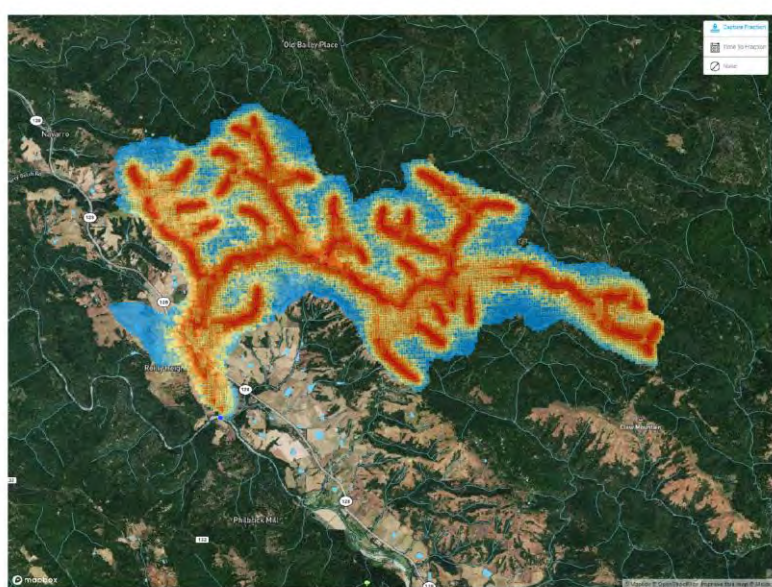
Assess Water Use



Collect Streamflow Data



Assess Impacts of Groundwater Pumping on Streamflow

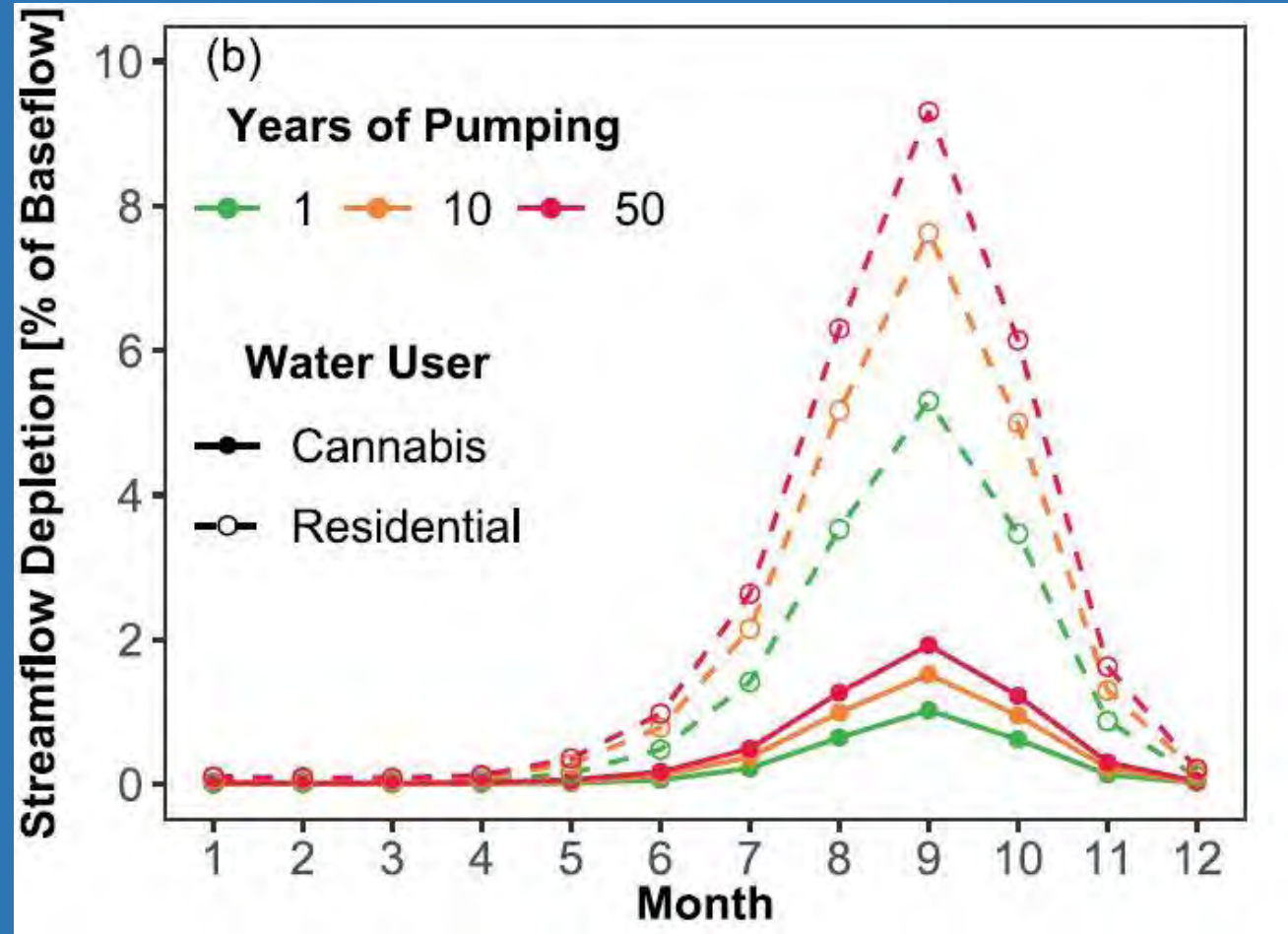


Mill Creek Streamflow Depletion

Scenarios for modified groundwater pumping - Report

2020.05.25

Foundry Spatial Ltd.
3947-A Quadra St.
Victoria, BC
V8X 1J5



Establish Flow Restoration Objectives

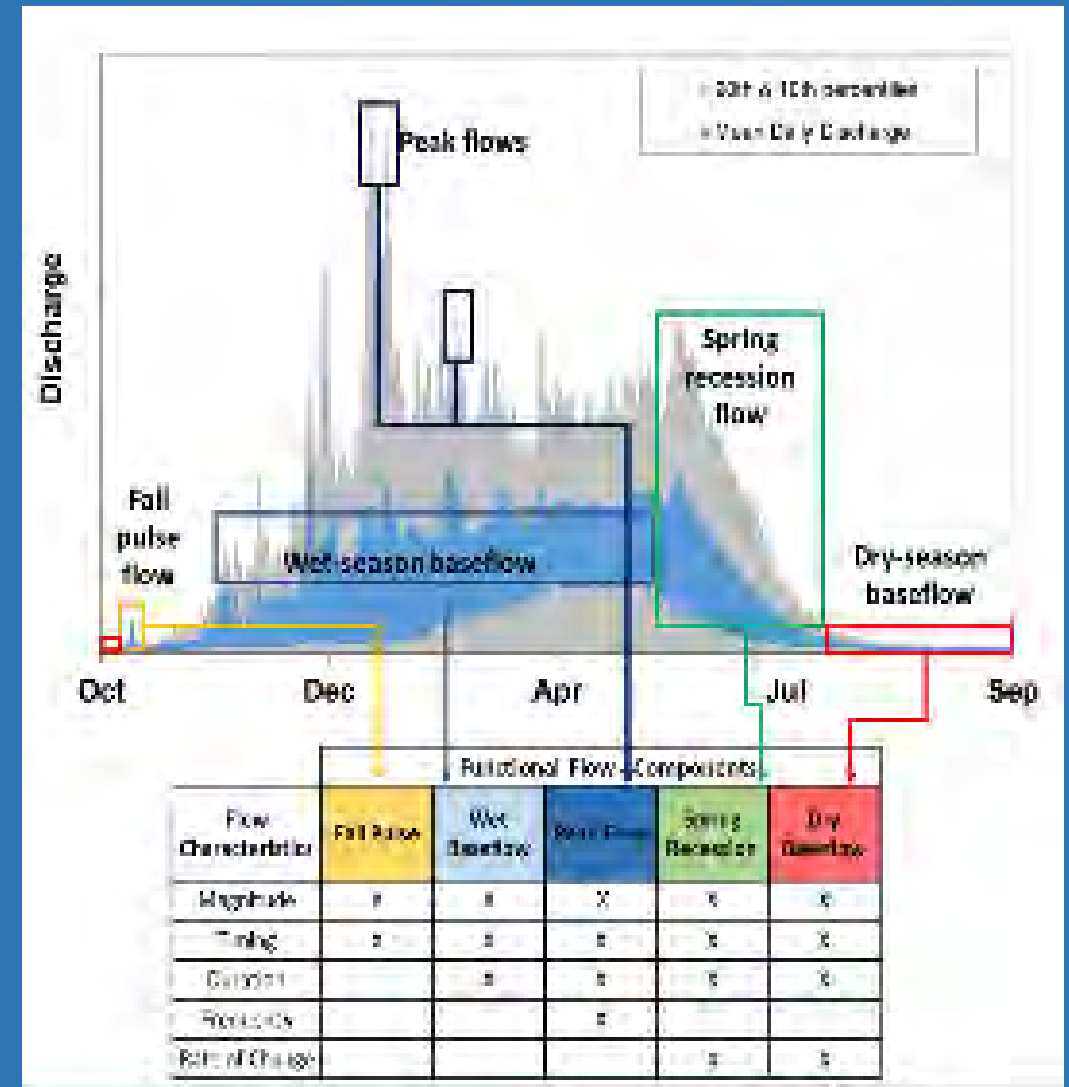


Introducing the California Environmental Flows Framework

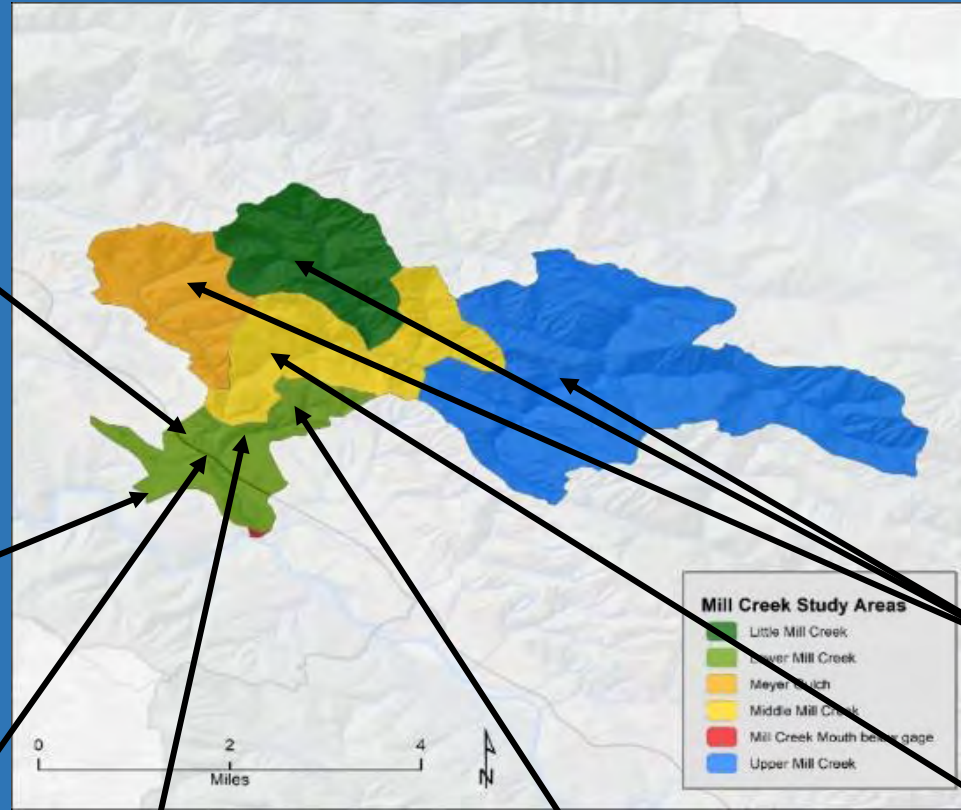
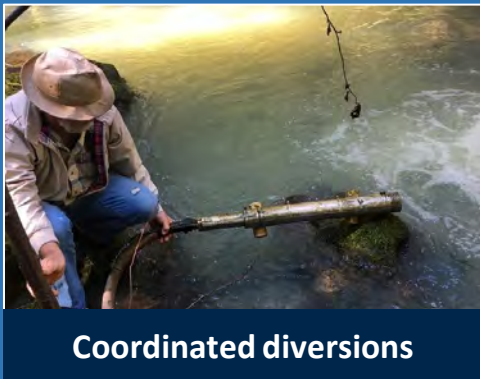
The California Environmental Flows Framework (CEFF) is a statewide approach for determining ecological flow criteria. CEFF provides a consistent and defensible approach to identifying ecological flow needs for California's rivers and streams. CEFF is being developed by the Environmental Flows Technical Workgroup (eFlows TWG), a subgroup of the California Water Quality Monitoring Council. The central goal of the eFlows TWG is improved coordination, collaboration, and data sharing among agencies, nonprofits, and other parties interested in instream flows. The eFlows TWG meets quarterly at the State Water Resources Control Board in Sacramento, California.



Determining Ecological Flow Criteria



Reach specific recommendations



Next Steps

- Continued Mill Creek Collaborative Water Management Plan Implementation
- Mill Creek Habitat Enhancement Project (large wood + GW infiltration)
- North Fork Navarro Collaborative Water Management
- Camp Navarro Rainwater Capture Project
- Flynn Creek Groundwater Infiltration Project



For more information:

<http://mcrcd.org/resources/flow-enhancement>

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