



Welcome to the State Water Board's
**Clear Lake Hitch Emergency
Listening Session**

We will begin at 6pm.

If you have questions before the session begins or need technical assistance, please use the [Zoom chat](#) or email ClearLakeHitch@waterboards.ca.gov.

Clear Lake Hitch Emergency

*Division of Water Rights
State Water Resources Control Board*



Listening Session | February 1, 2023

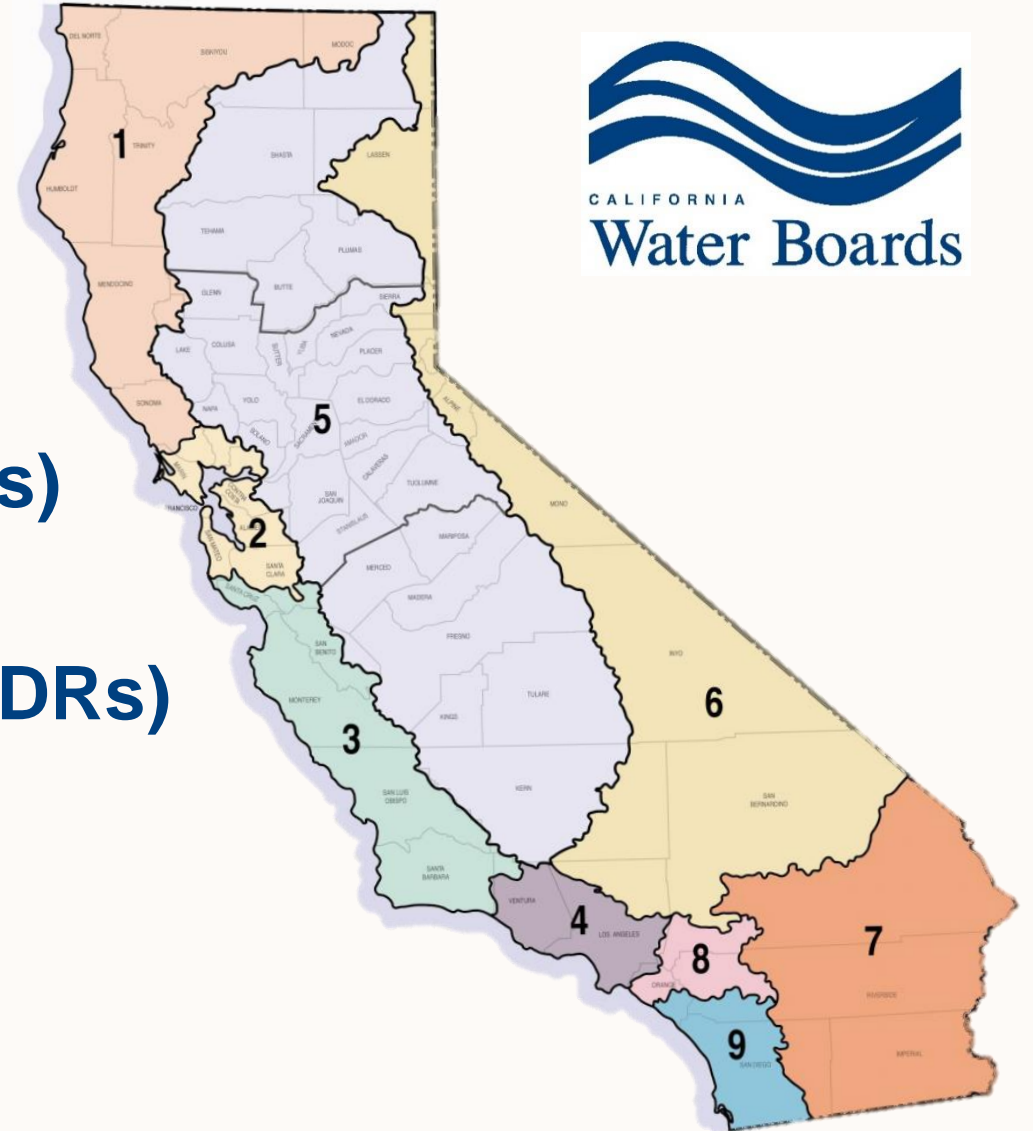
California Water Boards

- One State and Nine Regional Boards
- Protect Water Quality
- Regulate Drinking Water
- Administer Water Rights
- Provide Financial Assistance



California Water Boards in Lake County

- **Total Maximum Daily Loads (TMDLs)**
- **Irrigated Lands Program & Waste Discharge Requirements (WDRs)**
- **Blue Ribbon Panel**
- **Water Rights**
- **Managing Flows**
- **Protecting the hitch- we need your help!**

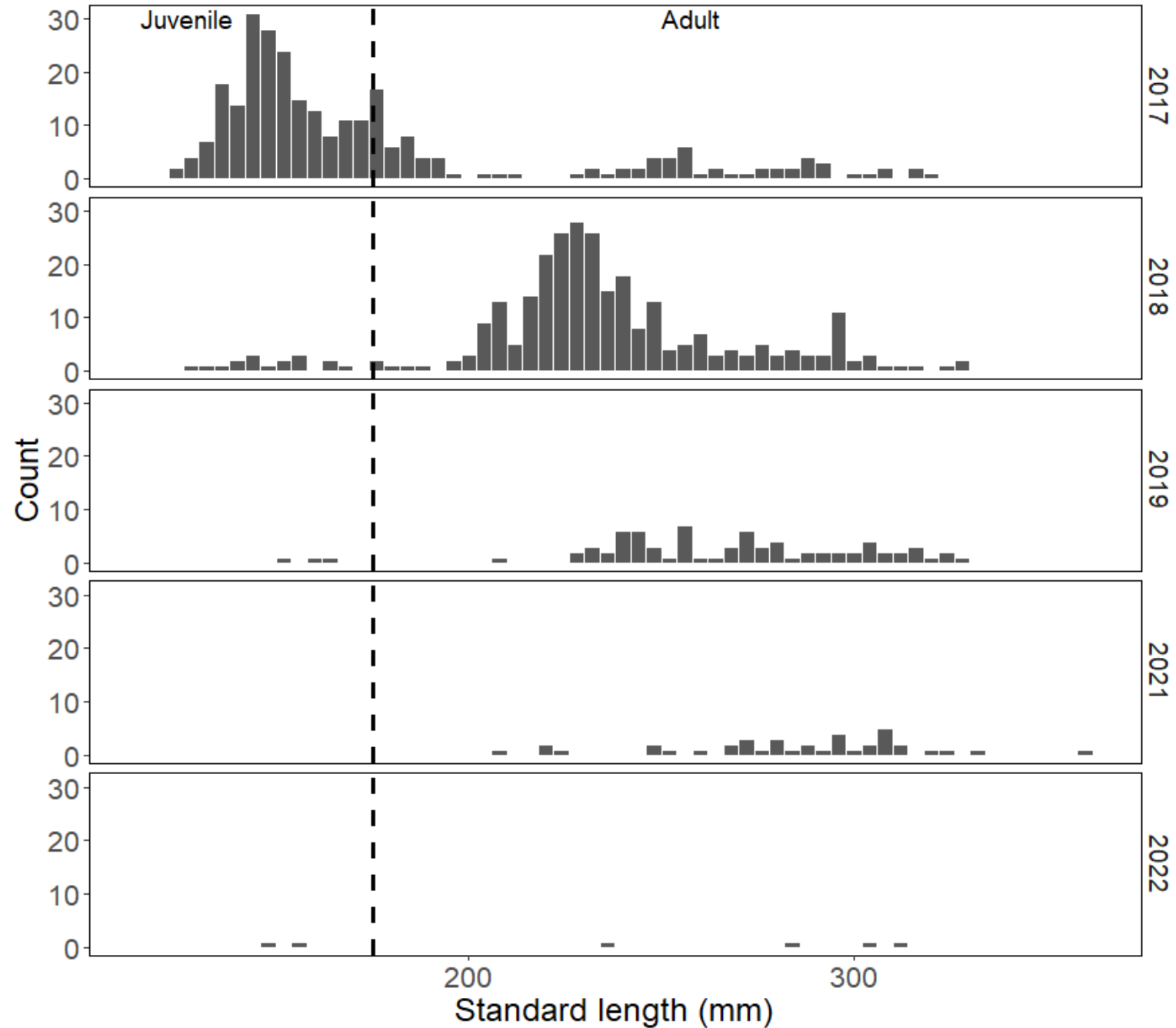


Clear Lake Hitch *chi*

- **Large minnow**
(12 inches long, weighs a pound, six-year lifespan)
 - **Found only in Clear Lake**
(and its tributary creeks)
 - **Culturally & ecologically important**
(to local Tribes and the lake's food chain)
 - **Spawns and rears in the Spring**
(it takes juvenile fish about 14 days to hatch & return to the lake)
 - **Once likely numbered in the millions**
- 
- A large minnow fish is being held by a person's hands. The fish is silver with a golden sheen on its side and is positioned horizontally across the frame. The background is a soft, light blue gradient. The person's hands are visible at the top and bottom, supporting the fish. The fish's scales are detailed, and its eye is prominent.

Rapid Population Decline

- From USGS gill net data
- Near complete failure of juvenile success after 2017
- Decline validated by local knowledge and narratives
- California hasn't lost a species in 50 years



Potential factors impacting hitch spawning/rearing

- **Flow barriers**
(Culverts, Stream bed alterations, Dams)
- **Insufficient flow volumes**
(Drought impacts, Surface diversions, Losing streams)
- **Habitat degradation**
(Mining, Land use changes, Levee development/flood control)
- **Predation & competition with invasive species**
- **Pollution**
(Mercury, Harmful Algal Blooms)

2014 Adobe Creek Fish Kill
(Finley Rd Bridge crossing)
Photo Credit: Ben Ewing,
CDFW, March 2, 2014

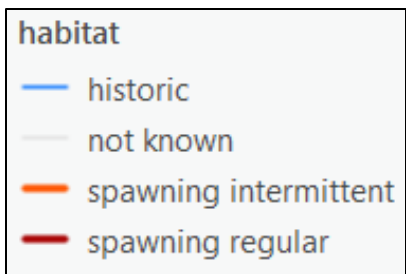
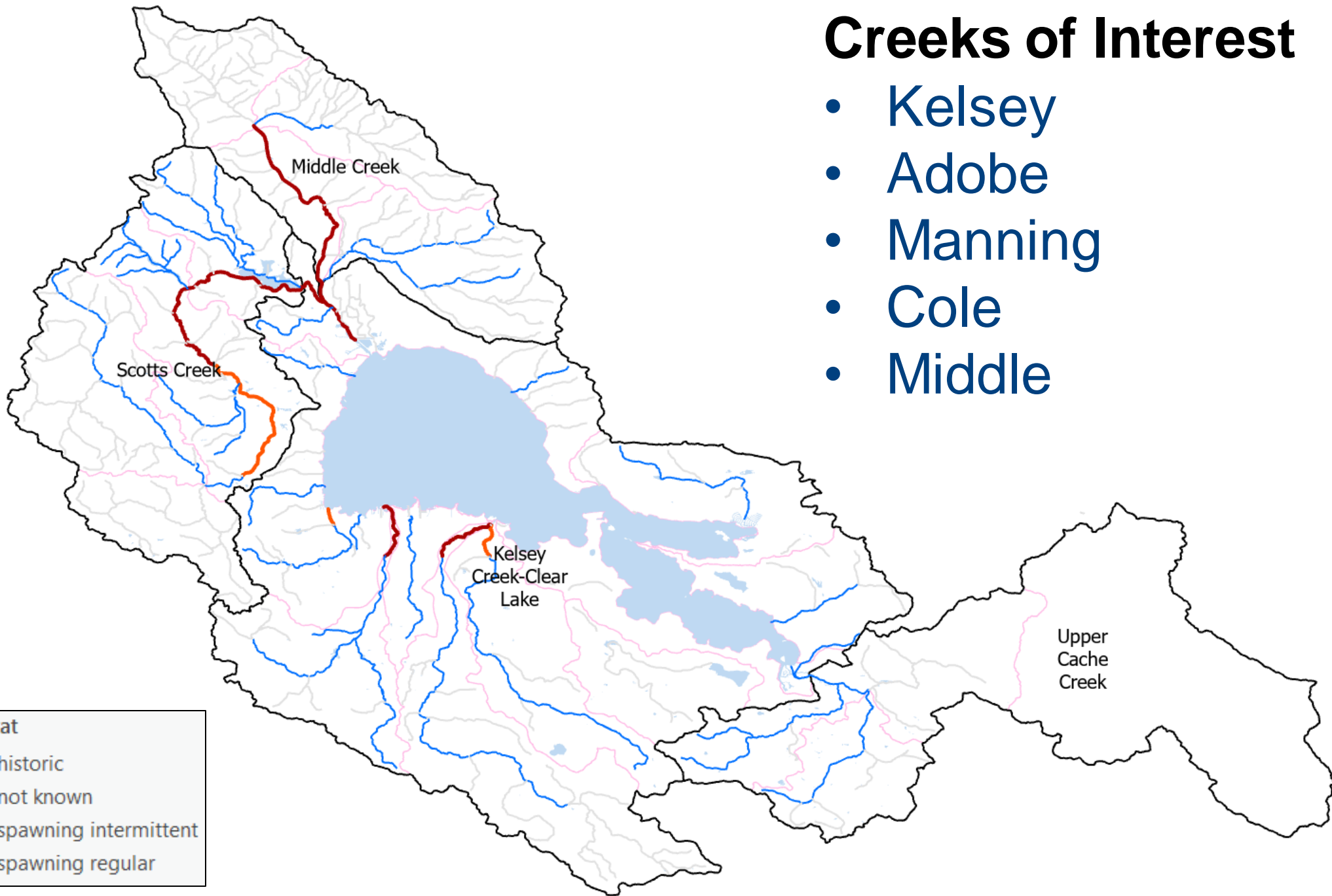


Other possible factors...

- **Illegal diversions?**
 - **cannabis & non-cannabis**
- **Surface water diversions?**
 - **200+ diverters**
- **Groundwater pumping?**
 - **1000+ wells?**
 - **98% of ag water supply (Big Valley GSP)**
 - **Timing and rates of pumping**
 - **Proximity of wells to creeks**
- **Other?**

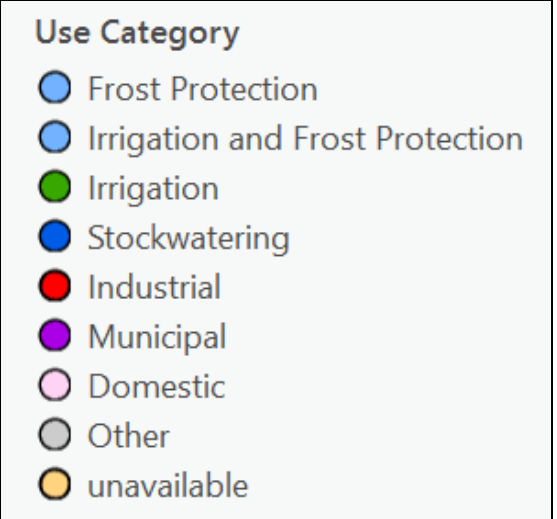
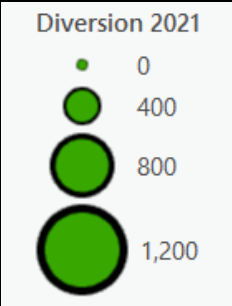
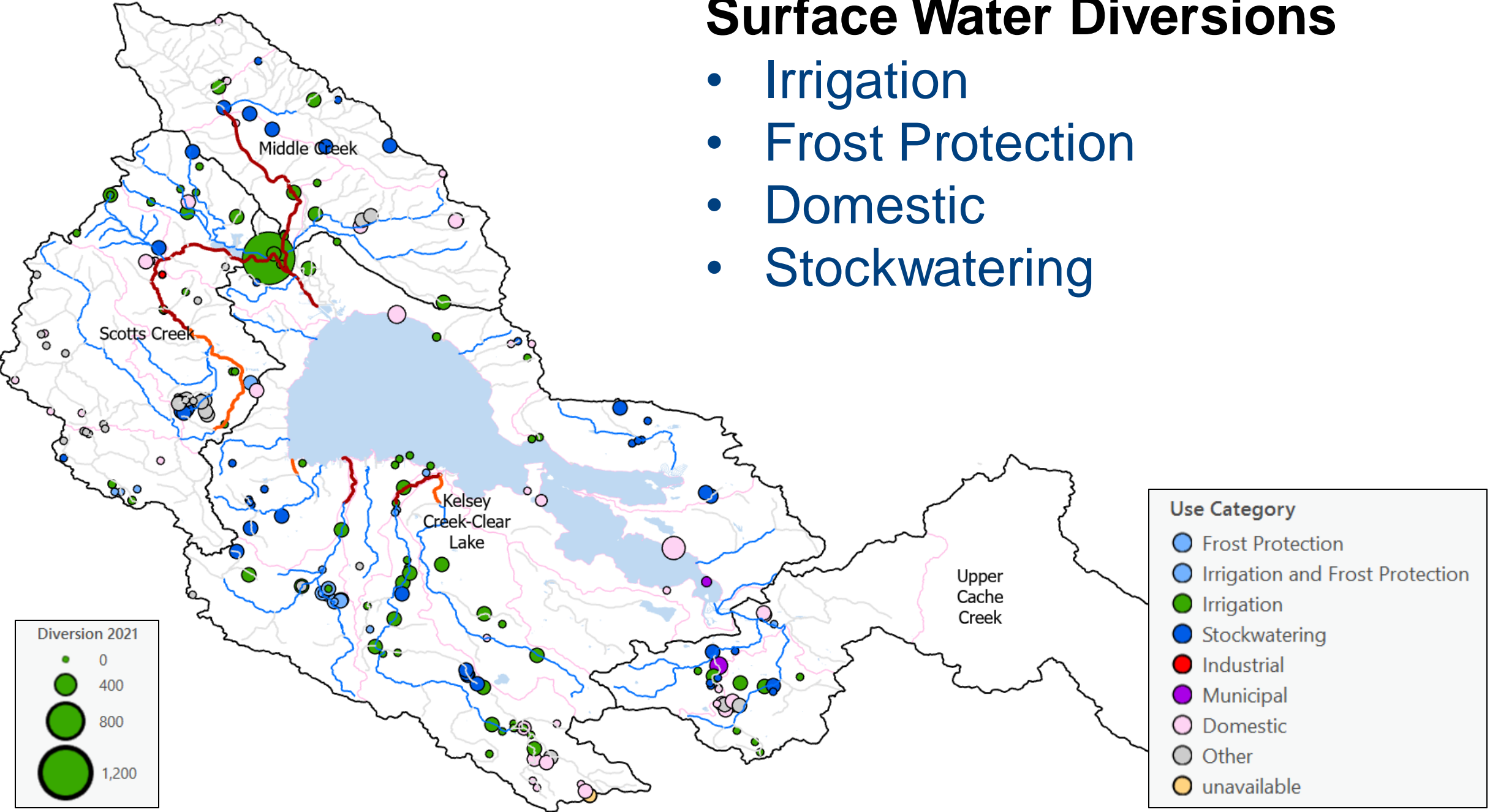
Creeks of Interest

- Kelsey
- Adobe
- Manning
- Cole
- Middle



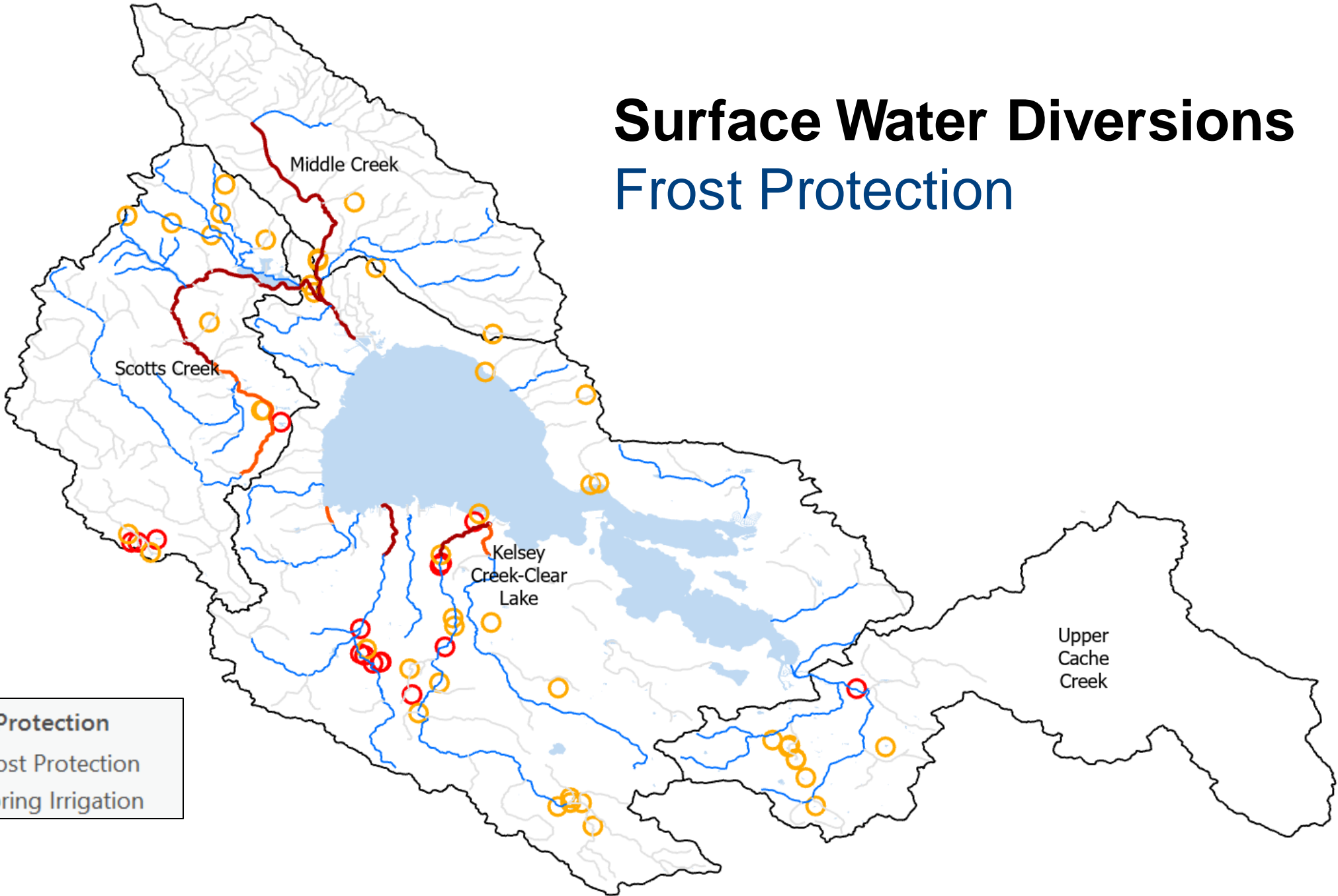
Surface Water Diversions

- Irrigation
- Frost Protection
- Domestic
- Stockwatering



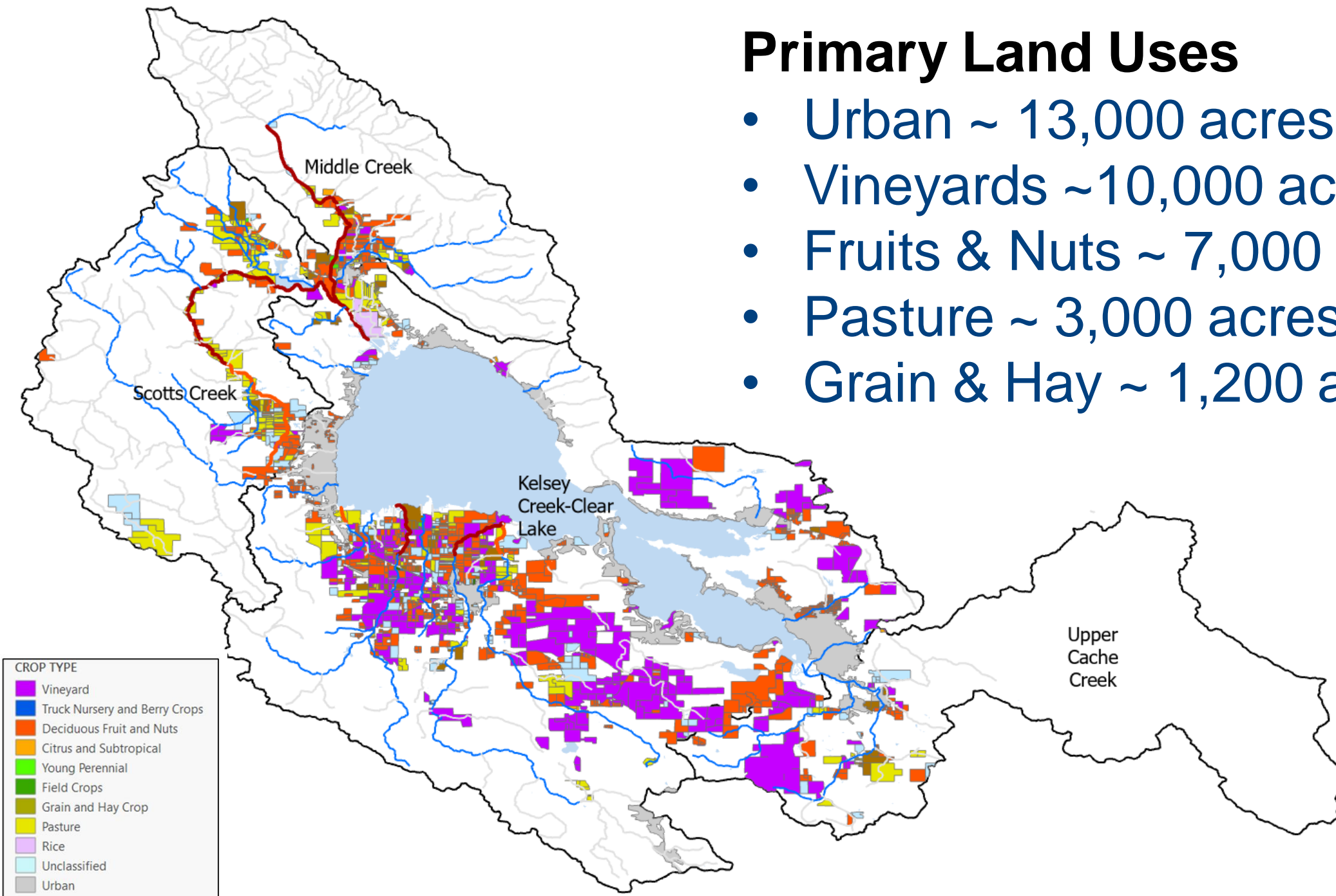
Surface Water Diversions

Frost Protection



Primary Land Uses

- Urban ~ 13,000 acres
- Vineyards ~10,000 acres
- Fruits & Nuts ~ 7,000 acres
- Pasture ~ 3,000 acres
- Grain & Hay ~ 1,200 acres



Data Needs & Other Questions

- Diversion volumes, timing, rates
- Groundwater/surface water interactions (how to ID & measure)
- Well locations, logs, depths (screens), size/pumping rates, pumping tests
- Groundwater quality (suitable for pump back projects?)
 - Can anyone volunteer well water quality data?
- Flow (gages), temperatures (timing of frost protection actions)
- Historical records or logs of fish kills and fish rescues
- Frost protection dates
- Other?

Protecting the Hitch Now and in the Long Term

- **Data** to better understand the problem & potential solutions
- **Enforcement** to ensure all diversions are legal
- **Voluntary actions** to keep water in the creeks this year
- **Collaboration** to find effective solutions and spread messages
- **Regulations** if voluntary actions aren't successful?

Enforcement to ensure all diversions are legal

- **Illegal diversions**
 - **Submit complaints to CalEPA Environmental Complaint System**
- **Illegal cannabis**
- **Illegal reservoirs and water storage**
- **Reporting violations**
- **Coordinating with Department of Fish & Wildlife**

Voluntary actions to keep water in the creeks this year

- Reduce diversions/pumping
- Coordinate diversion/pump timing
- Alternative frost protection methods
- Stream channel maintenance (CDFW coordination)
- Pump backs (using groundwater for streamflow)
- Other ideas?

Help Coordinate & Collaborate

- **Share messages**
- **Coordinate local solutions**
- **Share data with neighbors, and others**
- **Collect and share data this year**
- **Identify who needs the most help (small farms, limited management capacity, little to no room for ponds, etc.)**
- **Interest in off stream storage ponds for long-term**

Is there Need for Regulatory Actions?

- **How do we get good, timely information on water use?**
 - **Size of diversions?**
 - **Groundwater use?**
- **Reporting violations**
- **Coordinating with Department of Fish & Wildlife – streambed alterations, structures, or other unpermitted barriers**
- **Long-term frost protection?**



CDFW Consultation and Permitting

CDFW focuses on helping landowners avoid impacts to wildlife, fish, aquatic species, birds, native plants and waterbodies (rivers, streams, lakes, and ponds) by providing consultation and permits.

CDFW reviews and authorizes projects that may alter the bed, bank or channel of any watercourse under the **Lake and Streambed Alteration (LSA) program** and provides permitting and recommendations to avoid “take” of special status species listed under the **California Endangered Species Act (CESA)**.

**Opportunities exist for expediting authorization of projects or emergency work. Please contact us.



Do You Need a Permit?

- Construction or maintenance of a road, bridge or crossing within any watercourse
- Installation or replacement of a culvert
- The use of water from any watercourse (diversion or drafting)
- Obstruction or changing the flow of water (dam/pond/any material placed in the watercourse)
- Disturbance or alteration to the bed, bank, or channel, of any watercourse/waterbody
- Potentially impact a sensitive or CESA listed species (or their habitat)

PLEASE REMEMBER: In-stream structures, regardless of how long ago they were installed (permanent or temporary dams, ponds, weirs, culverts, etc.) must allow adequate flow below the structure to keep fish in good condition and allow fish passage in a fish bearing stream (Fish & Game Code Sections 5901 and 5937).

What We've Done So Far

- **Clear Lake Emergency Summit (early-Dec)**
- **Data Collection & Analysis**
- **Tribal Engagement**
 - Data & ongoing consultation & collaboration
- **State, Federal & Local Coordination**
 - Task Force & Implementation Team
 - CA Departments of Fish & Wildlife, Water Resources, Food & Agriculture, US Geological Survey & Fish & Wildlife Service, UC Davis
 - Lake County
- **Community Engagement**
 - Lake County Farm Bureau, Wine Institute, CA Association of Wine Grape Growers, Lake County Land Trust & Resource Conservation District
 - Public Listening Sessions & Site Visits



Early in effort - many questions & uncertainties



Drivers - climate, hydrology, water use



Solutions - coordination & costs

Can't let uncertainty lead to **extinction!**

What We Need From You

- **Commit to specific voluntary actions**
 - Reduce diversions/pumping from February-May
 - Use alternative frost protection methods
 - Coordinate diversion/pump timing
 - Other?
- **Become a local coordinator to keep up momentum**
- **Share data with us & help answer our questions**
- **Help connect with hard-to-reach folks**
- **Invite us to other meetings**

Questions, Answers, Comments

- **What would you do to solve the problem? Short and long term?**
- **What are the barriers? Cost? Feasibility? Data? Coordination? Other?**
- **What specific steps should the state take?**

Engagement Opportunities

- **Lake County Farm Bureau Board of Directors Meeting- January 11, 2023**
- **State Water Board Listening Session- January 19, 2023**
- **Lake County Board of Supervisors Meeting- January 24, 2023**
- **State Water Board Listening Session- February 1, 2023**

Big Valley Groundwater Sustainability Agency Meeting- Friday, February 24, 2023

11:00 a.m. PST

Remote Participation

Online via ?: [TBD]

Please invite us to your meetings!

Thank You!

Website: waterboards.ca.gov/clearlakehitch

Email Updates: Sign up on our website (at the bottom)

Questions: email clearlakehitch@waterboards.ca.gov