



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

We will begin promptly at 1:00pm.

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 | January 19, 2023

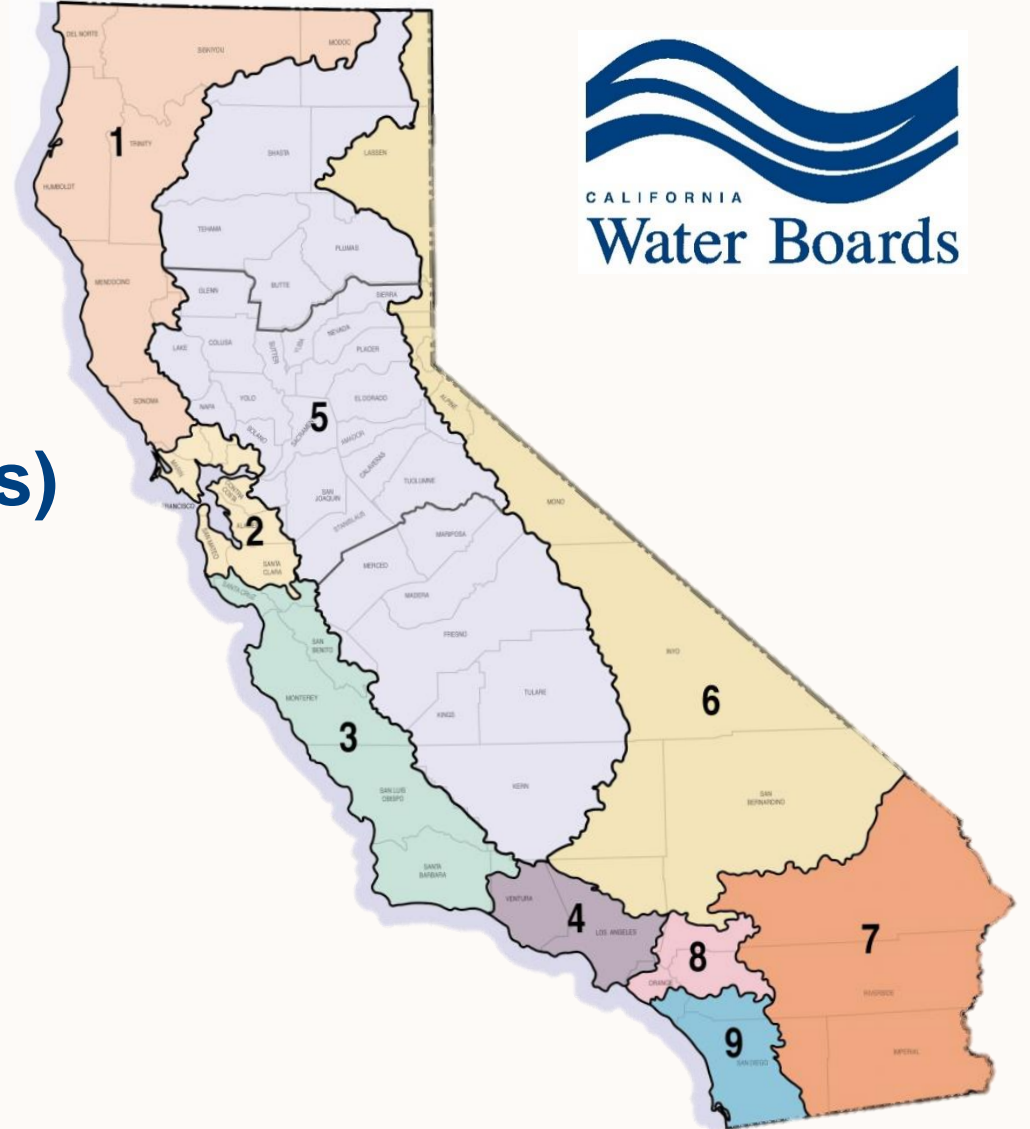
California Water Boards

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

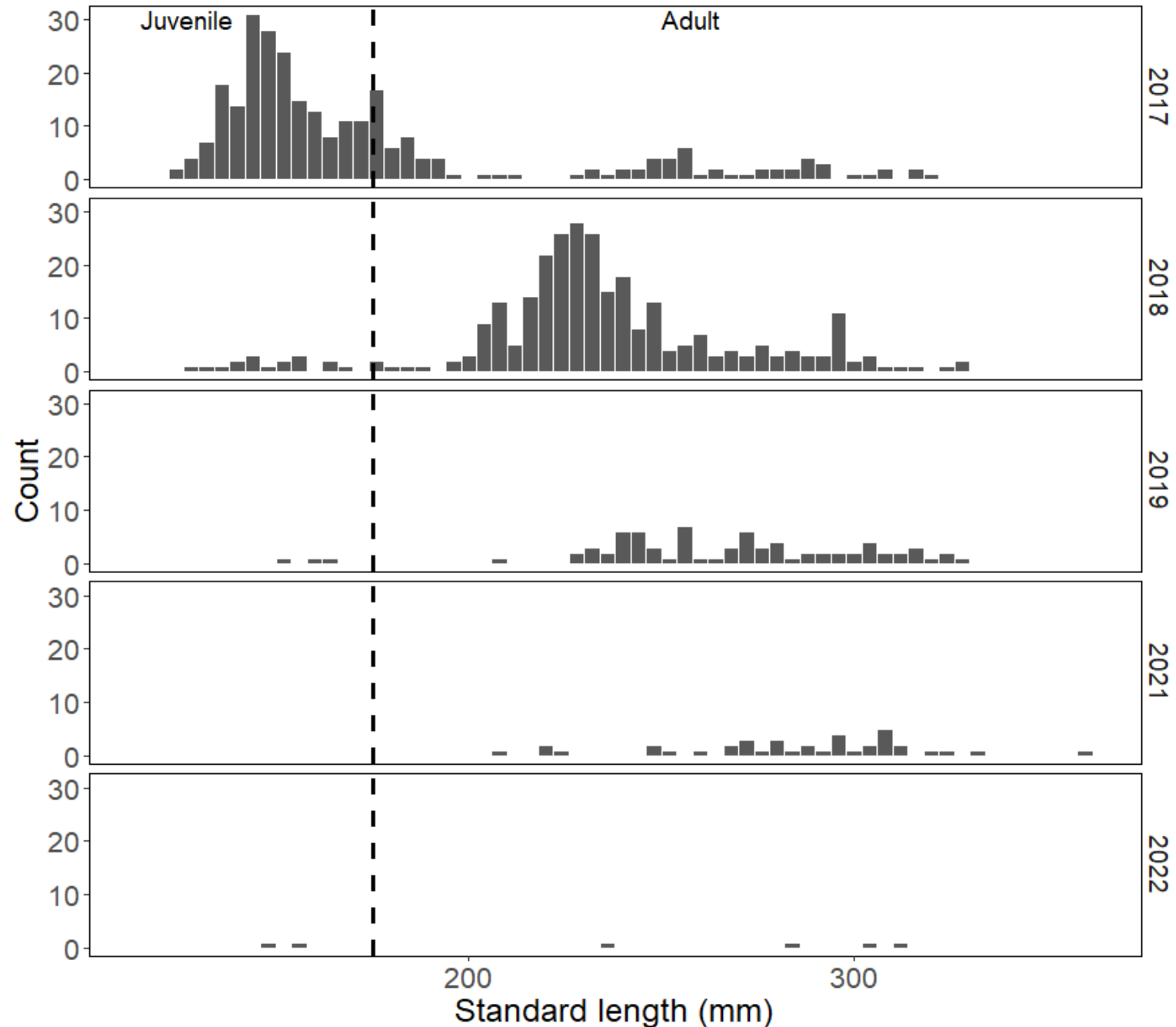


Clear Lake Hitch *chi*

- **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**

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 hatch 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

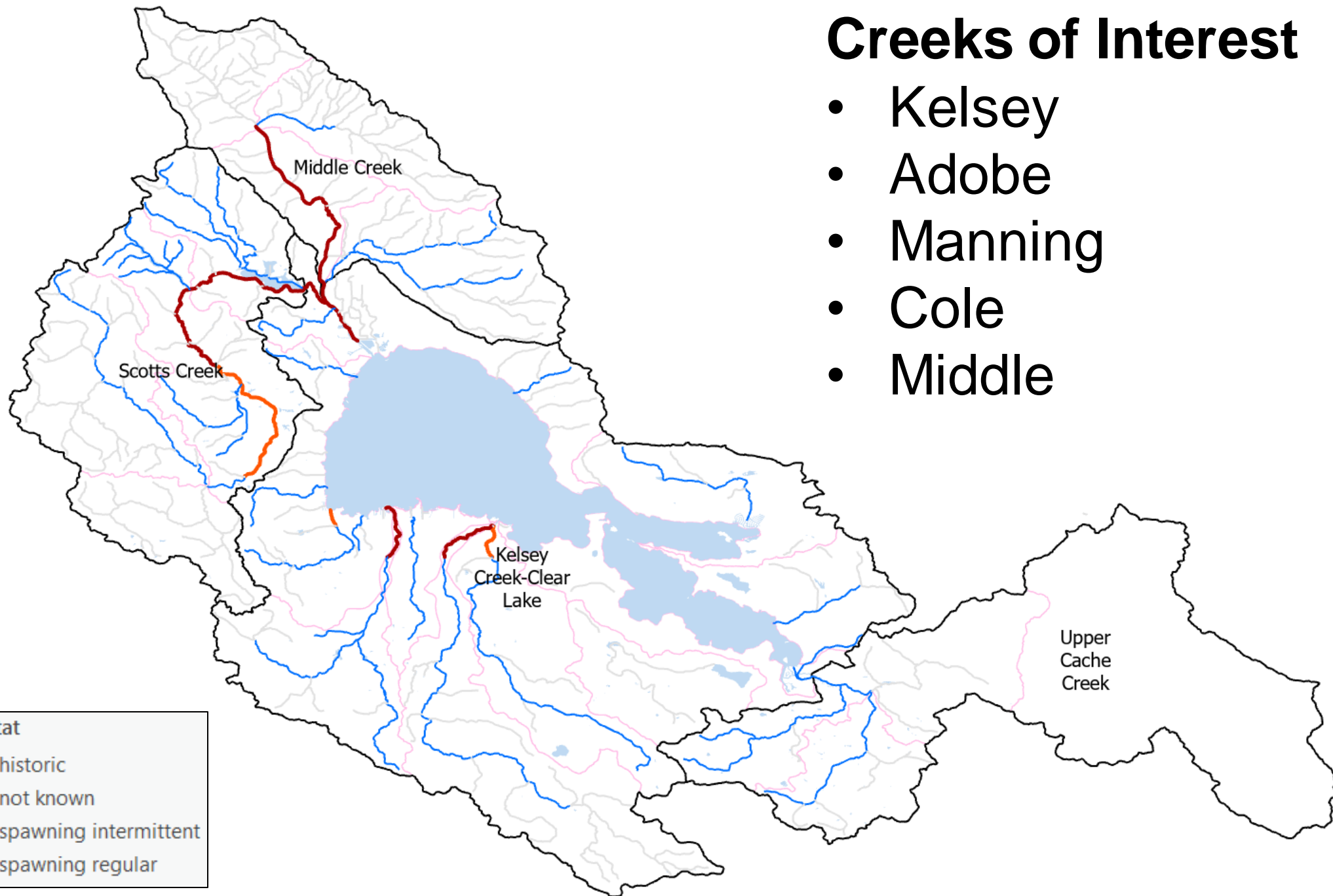


Other possible factors...

- **Illegal diversions**
- **Cannabis**
- **Turning on pumps too early**
- **Overallocated water**
- **Groundwater**
 - **Potentially >1000 wells (?)**
 - **98-99% of agricultural water supply (Big Valley GSP)**
 - **Pumping rates and proximity to streams**
 - **Significant data gaps**
- **Other?**

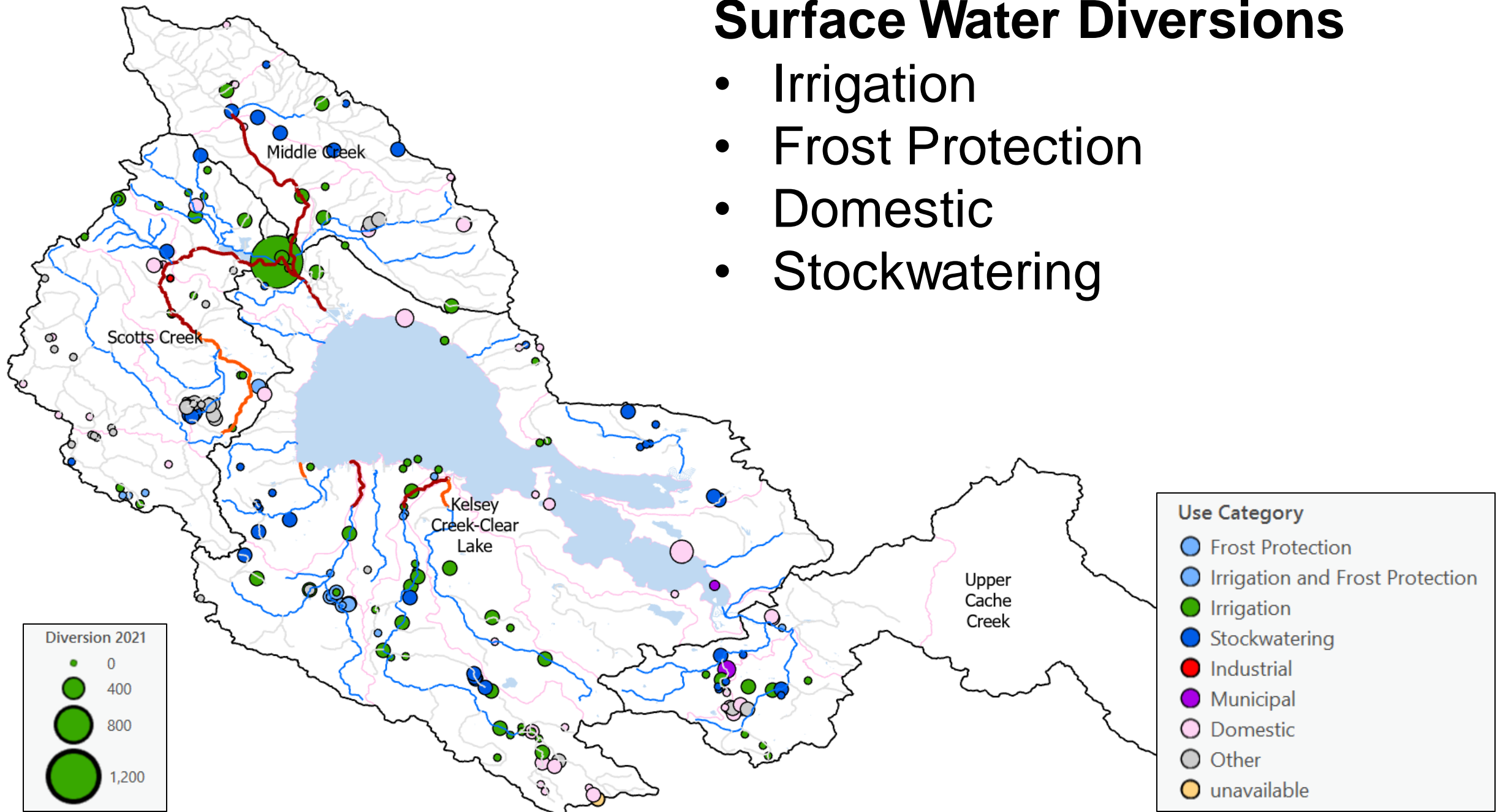
Creeks of Interest

- Kelsey
- Adobe
- Manning
- Cole
- Middle



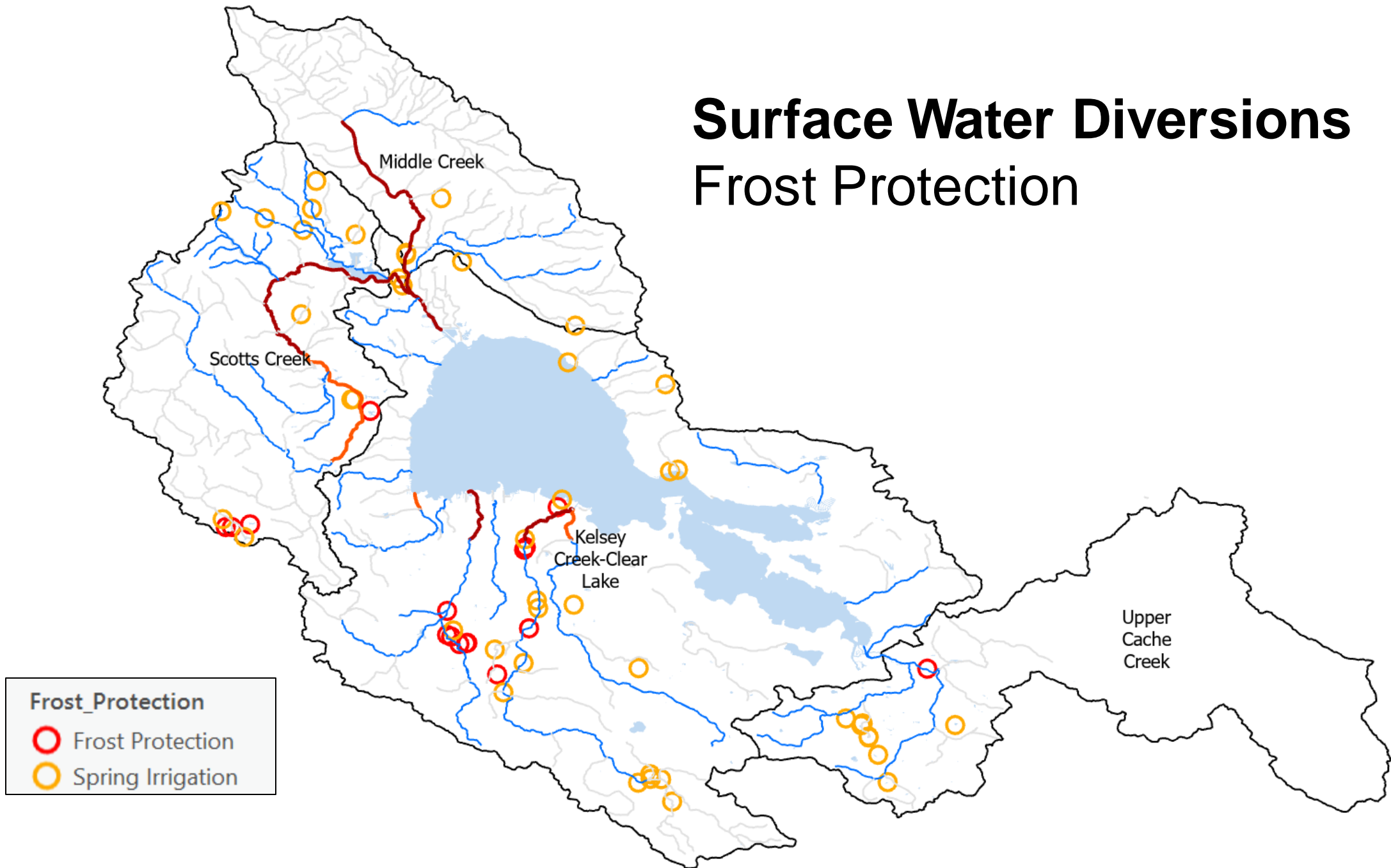
Surface Water Diversions

- Irrigation
- Frost Protection
- Domestic
- Stockwatering



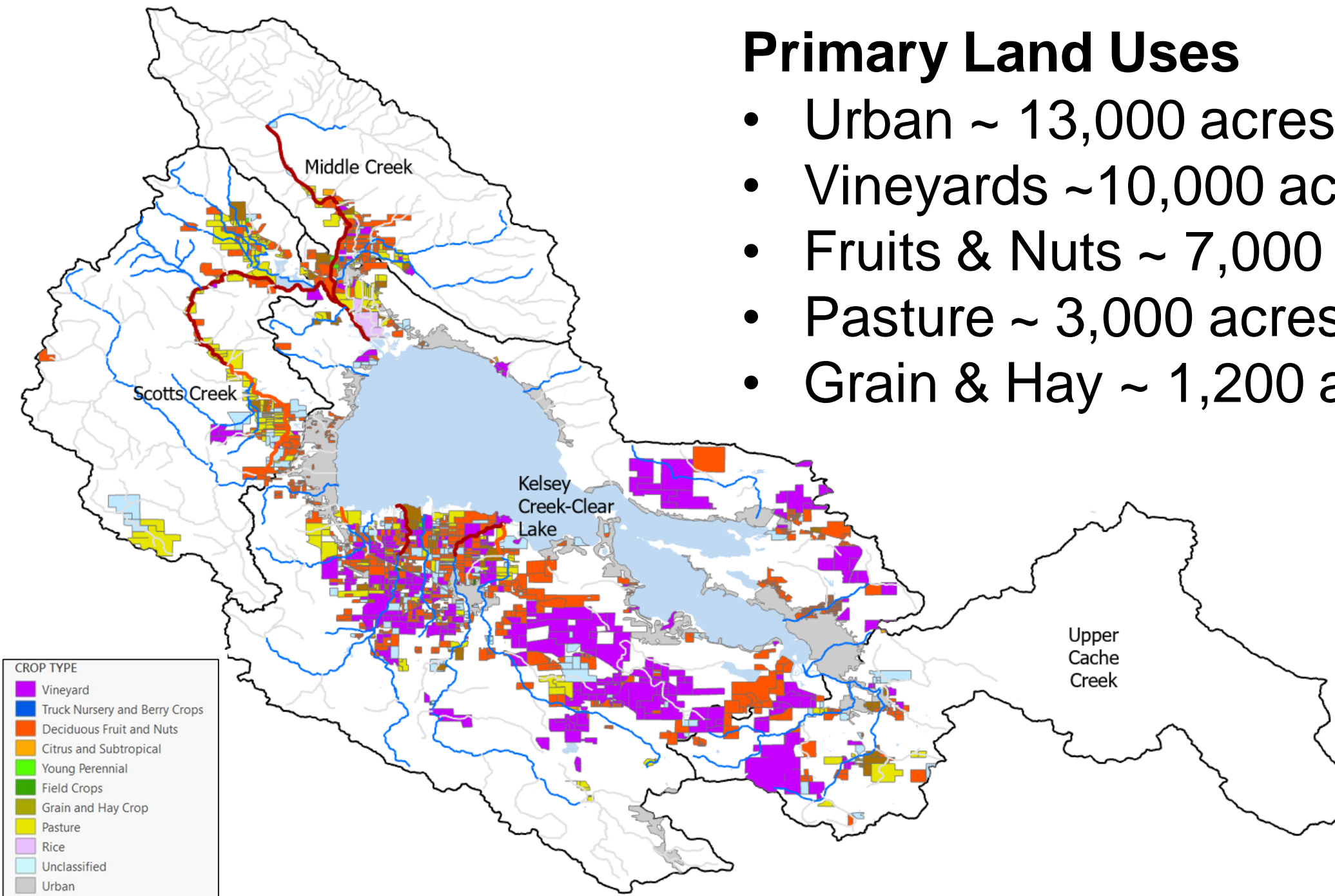
Surface Water Diversions

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



Protecting the Hitch Now and in the Long Term

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

Enforcement to ensure all diversions are legal

- Illegal diversions
- 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
- Alternative frost protection methods
- Coordinate diversion/pump timing
- Pump Backs (using groundwater for streamflow)
- Other ideas?



Early in effort
many questions & uncertainties

Drivers
climate, hydrology, water use

Solutions
coordination & costs

Can't let uncertainty lead to extinction!

Data Needs & Other Questions

- **Diversion volumes, timing, rates**
- **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)**
- **Groundwater/surface water interactions (how to ID & measure)**
- **Other?**

Help Coordinate & Collaborate

- **Share messages**
- **Coordinate local solutions**
- **Share data with neighbors, and others**
- **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?**

What We've Done So Far

- **Clear Lake Emergency Summit (early-Dec)**
- **Data Collection & Analysis**
- **Community Engagement**
 - Lake County Farm Bureau
 - Wine Institute
 - California Association of Wine Grape Growers
 - Public Listening Sessions
 - Site Visits
- **Tribal Engagement**
 - Attending meetings, sharing data & ongoing collaboration
- **State, Federal & Local Coordination**
 - Task Force & Implementation Team: California Department of Fish and Wildlife (CDFW), Department of Water Resources (DWR), California Department of Food and Agriculture (CDFA)
 - Lake County
 - University of California Davis
 - United States Geological Survey (USGS)
 - United States Fish & Wildlife Service (USFS)

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

State Water Board Listening Session- Thursday, January 19, 2023

1:00 p.m. to 3:00 p.m. PST

Remote Participation

Online via Zoom: bit.ly/CLH_Jan19

Lake County Board of Supervisors Meeting- Tuesday, January 24, 2023

Meeting time: 9:00 a.m. PST

Item time: Afternoon

In-Person & online: <https://countyoflake.legistar.com/Calendar.aspx>

State Water Board Listening Session- Wednesday, February 1, 2023

6:00 p.m. to 8:00 p.m. PST

Remote Participation

Online via Zoom: bit.ly/CLH_Feb1



Thank You!

Website: waterboards.ca.gov/clear-lake-hitch

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

Questions: email clearlakehitch@waterboards.ca.gov