Decision Support Tool for Locating Fish Food Production on Rice Fields in the Sacramento Valley

Progress Update to the

Floodplains Reimagined Advisory Committee

2023 September 14

DUCKS UNLIMITED

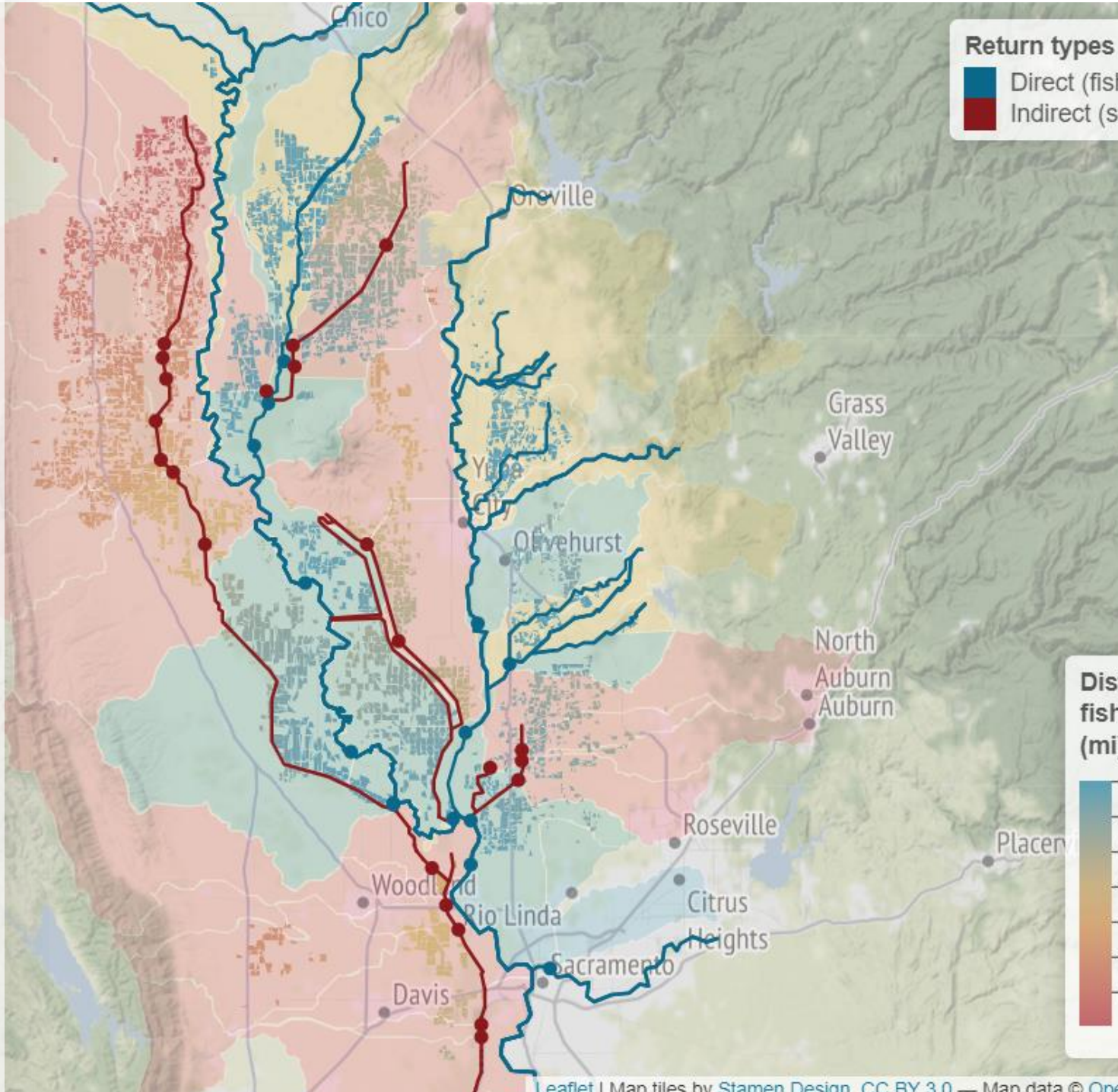
Objective: Develop a decision support tool to aid in locating rice fields best suited to a fish food production program

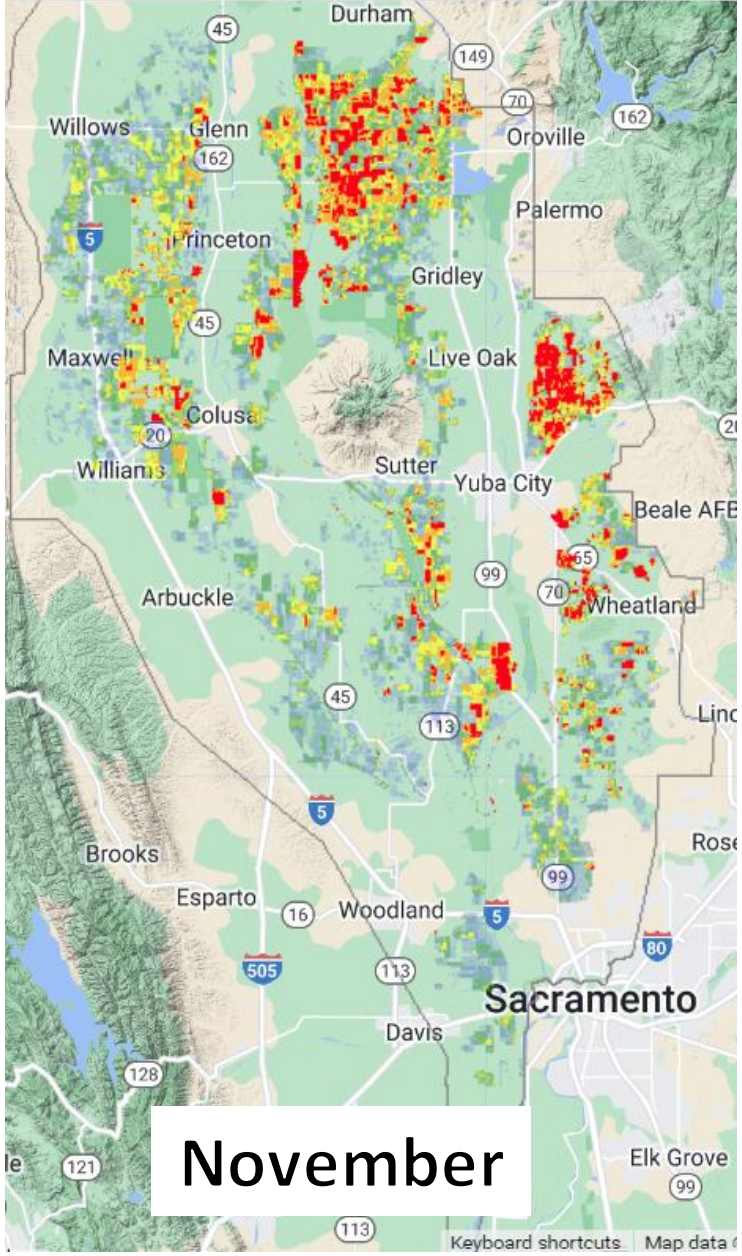
Identify the best locations for a fish food program based on the proximity of the fields to fish bearing streams and how they overlay/interact with other factors (timing of juvenile salmon presence in the rivers, waterfowl and shorebird interests, possible canal and water control structure maintenance schedules, etc).

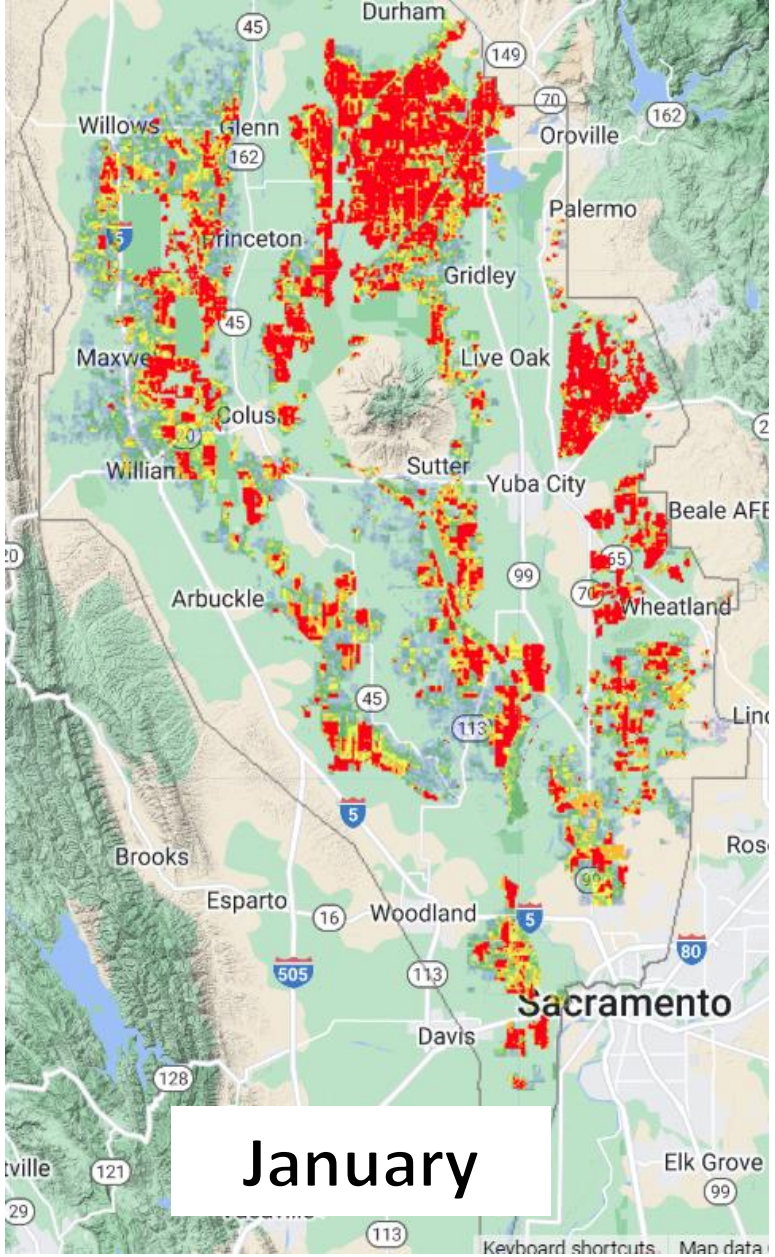
- Salmon
  - Proximity of rice fields to outlet structures to fish-bearing streams.
  - Timing of juvenile salmon presence in rivers
- Waterfowl and Shorebirds
  - Timing of fish food drawdowns in relation to timing of waterbird population numbers in the Valley
  - Ability to reflood fields after food transport
- Water Districts / Agriculture
  - Timing of annual canal and infrastructure maintenance and how this affects ability to flood fields and transport fish food

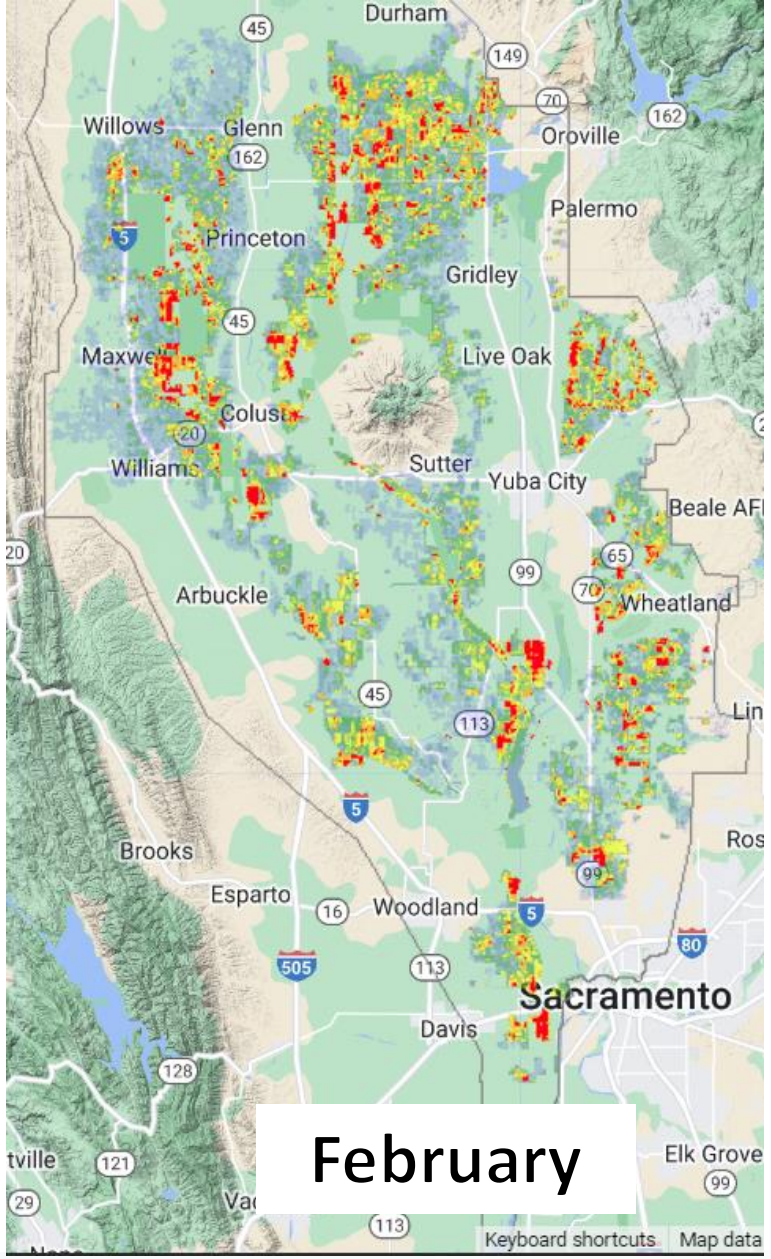
FlowWest Water Infrastructure Mapping

Return Types and Distance









Winter Flooding Frequency In Rice and Wetlands

2016 – 2022

- Monthly surface water
- Flooding frequency by Month

Next Steps

- Review and Combine Infrastructure and Flood Frequency Layers
- Outreach with salmon and shorebird biologists, and with water districts and rice industry to define additional layers and rankings
- Develop “final” decision support model