

Fish Passage

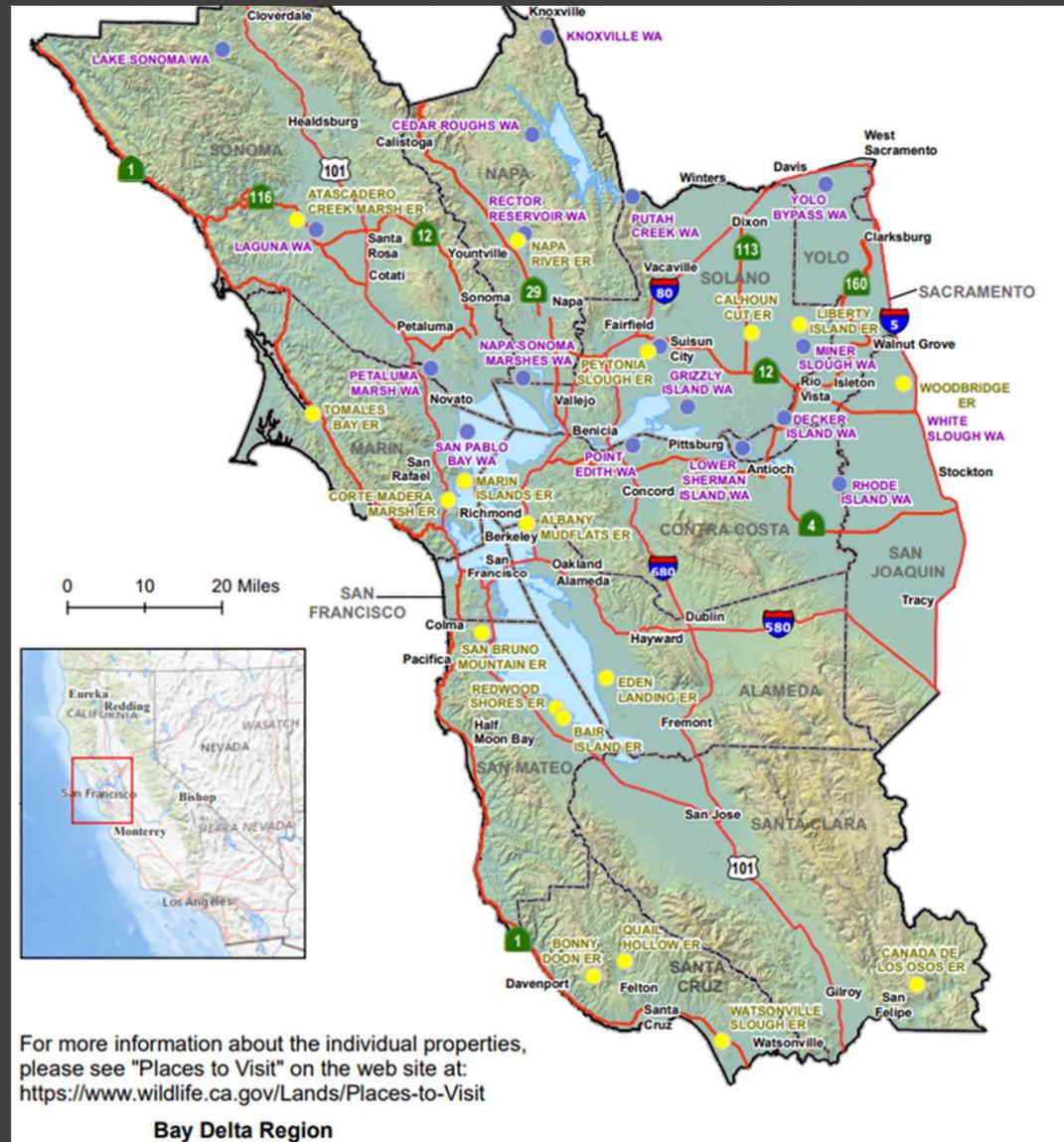
Matt Erickson

California Department of Fish and Wildlife





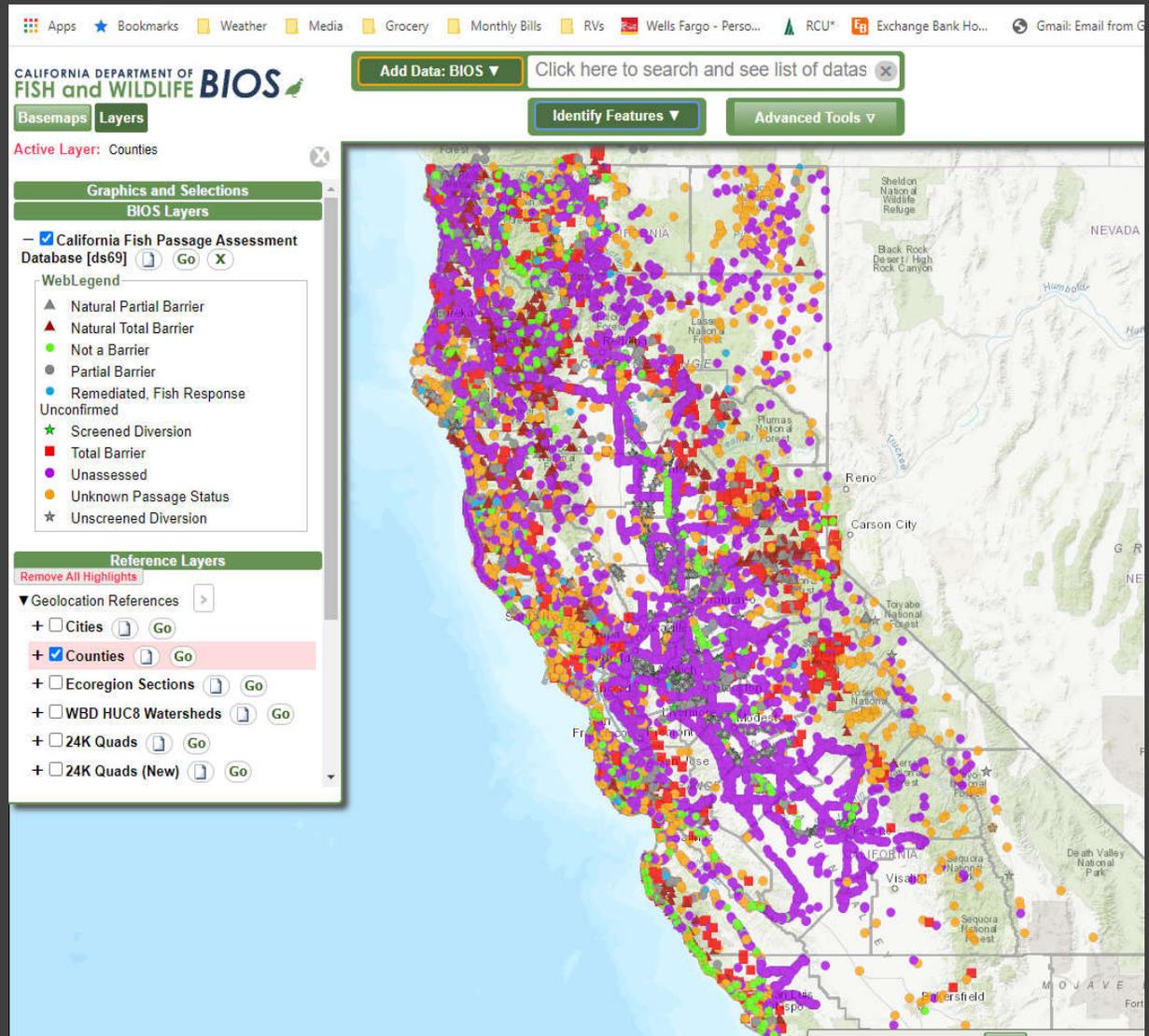
CDFW
Bay Delta Region





Fish Passage

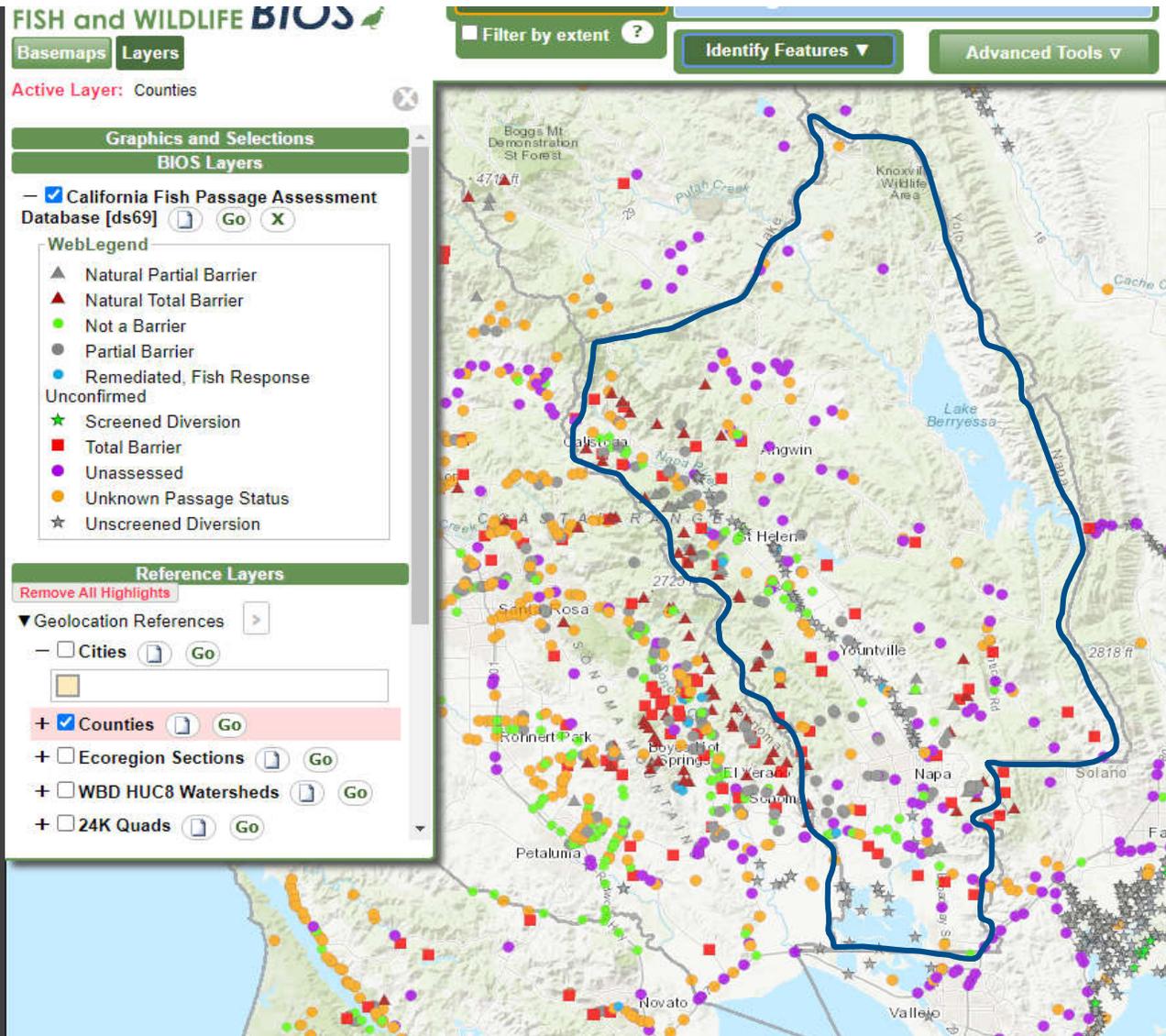
- Barriers are cataloged on the Passage Assessment Database (PAD)
- <https://nrm.dfg.ca.gov/PAD/>





Fish Passage

- Napa County barriers identified





Flashboard dam



Culvert



Deficient Culvert Retrofit

Fish Passage Barriers

What are barriers?

- Road/Stream Crossings
- Irrigation Diversions
- Dams (large and small)
- Anything preventing the upstream/downstream movement of fish and invertebrates



Lake Sonoma Dam



Fish Passage

- Listed Species or Species of Concern
- Salmon
- Steelhead
- Lamprey
- Freshwater shrimp



Central California Coho Salmon (*Oncorhynchus kisutch*)

Anadromous, semelparous

Listed as Endangered (ESA / CESA)



Fish Passage

- Listed Species or Species of Concern
- Salmon
- Steelhead
- Lamprey
- Freshwater shrimp



Central California Coast Steelhead (*Oncorhynchus mykiss*)
Anadromous, iteroparous
Listed as Threatened (ESA)



Fish Passage

- Listed Species or Species of Concern
- Salmon
- Steelhead
- Lamprey
- Freshwater shrimp



Pacific Lamprey (*Entosphenus tridentata*)

Anadromous, semelparous

CA Species of Special Concern



Fish Passage

- Listed Species or Species of Concern
- Salmon
- Steelhead
- Lamprey
- Freshwater shrimp



Freshwater Shrimp (*Syncaris pacifica*)

Listed as Endangered (ESA)

Endemic to Marin, Sonoma and Napa Co.



Fish Passage

- Identify barriers
- Prioritize barrier upgrade
 - Assess habitat upstream of barrier
 - Estimate cost
- Identify funding
 - Designs
 - Implementation





Before



After

Fish Passage

San Geronimo Creek – Marin County

- Before – Barrier to fish passage
- After – Barrier removed



Options

- CDFW assistance with barrier assessment
- Napa County RCD has experience with barrier assessment
- Develop designs to replace identified fish barriers
- After natural disasters, FEMA can replace with designs meeting modern codes and standards.
- Barrier remediation may be eligible for grant funds (FRGP or Proposition 1)



Before



After

Dry Creek (Napa River)
Barrier Removal



Matt Erickson
Matt.Erickson@wildlife.ca.gov



Neefus Gulch
(Mendocino County)
Barrier Assessment