

Influence of a dam on one watershed scale weed control project

Presented by: April Damanti

Cal-IPC Symposium October 26, 2023



RIVER PARTNERS

Who is River Partners?

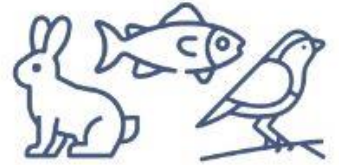
- Nonprofit organization founded in 1998.
- Create a thriving and hopeful future for the state's environment and communities.
- Scientifically driven riparian habitat restoration using modern farming practices.
- The largest on-the-ground restoration footprint of any nonprofit in the western US.

BY THE NUMBERS



18,766

Acres of habitat restored for imperiled species



58

Imperiled species protected



4,068,534

Native trees planted



10,265,818,605

gallons of fresh water conserved



1,101,650

metric tons of greenhouse gases captured



\$150+ million

channeled to the communities we serve

We Bring Life Back To Rivers





- Oroville Dam on the Feather River.

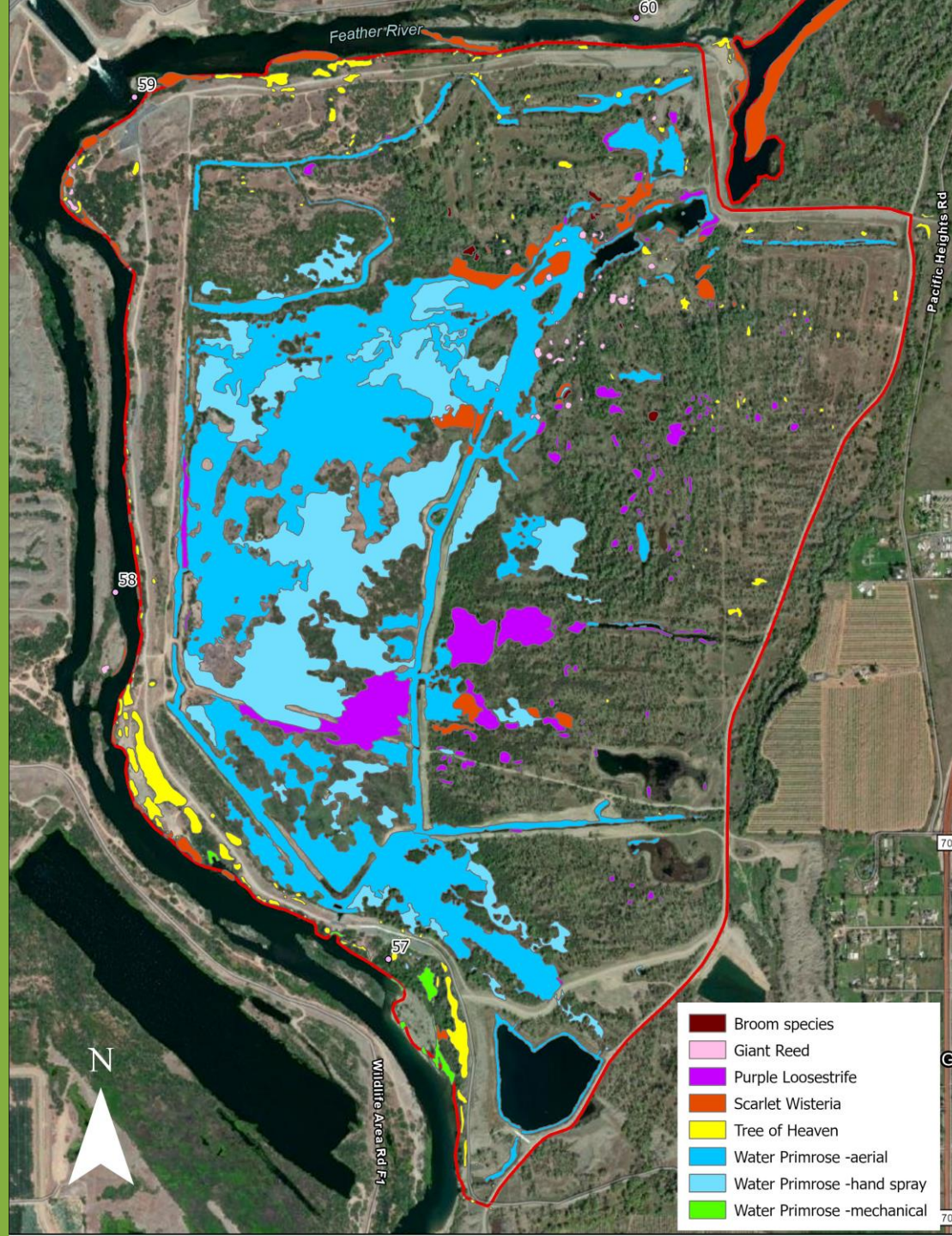


- Oroville Dam on the Feather River.
- Unique opportunity for watershed scale weed eradication.

- The Oroville Wildlife Area D-Unit is located ~10.5 river miles downstream of the Fish Barrier Dam at the Feather River Fish Hatchery.
- 2017-2020: The Oroville Wildlife Area Flood Stage Reduction and Habitat Restoration Project (Phase I).
 - Vegetation management and restoration.
 - Hydraulic improvements.
 - Recreation enhancement.

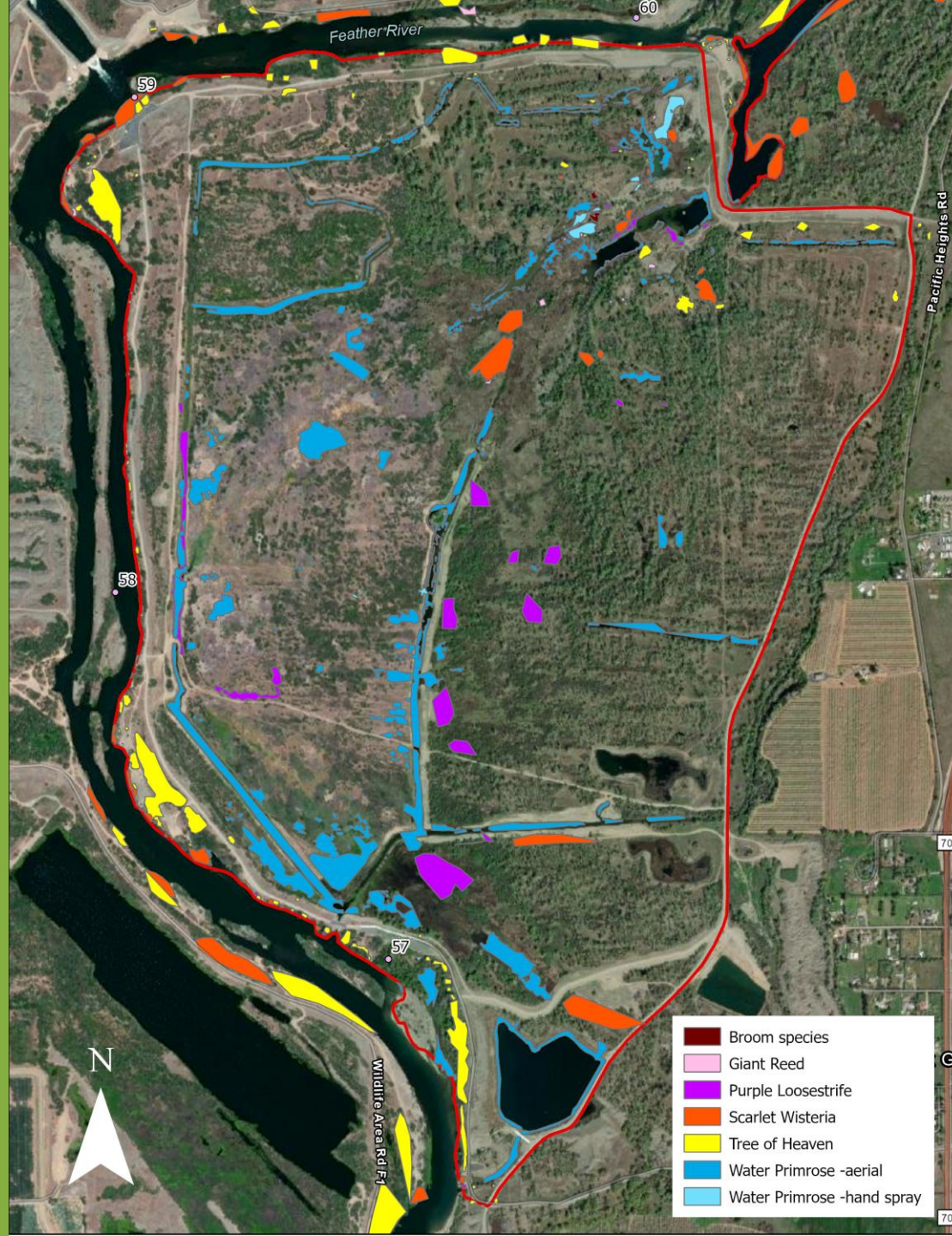


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- Species mapped on OWA D-Unit, 2017.
- Water primrose (*Ludwigia grandiflora*) occupied 80% of the total acres of weeds mapped.

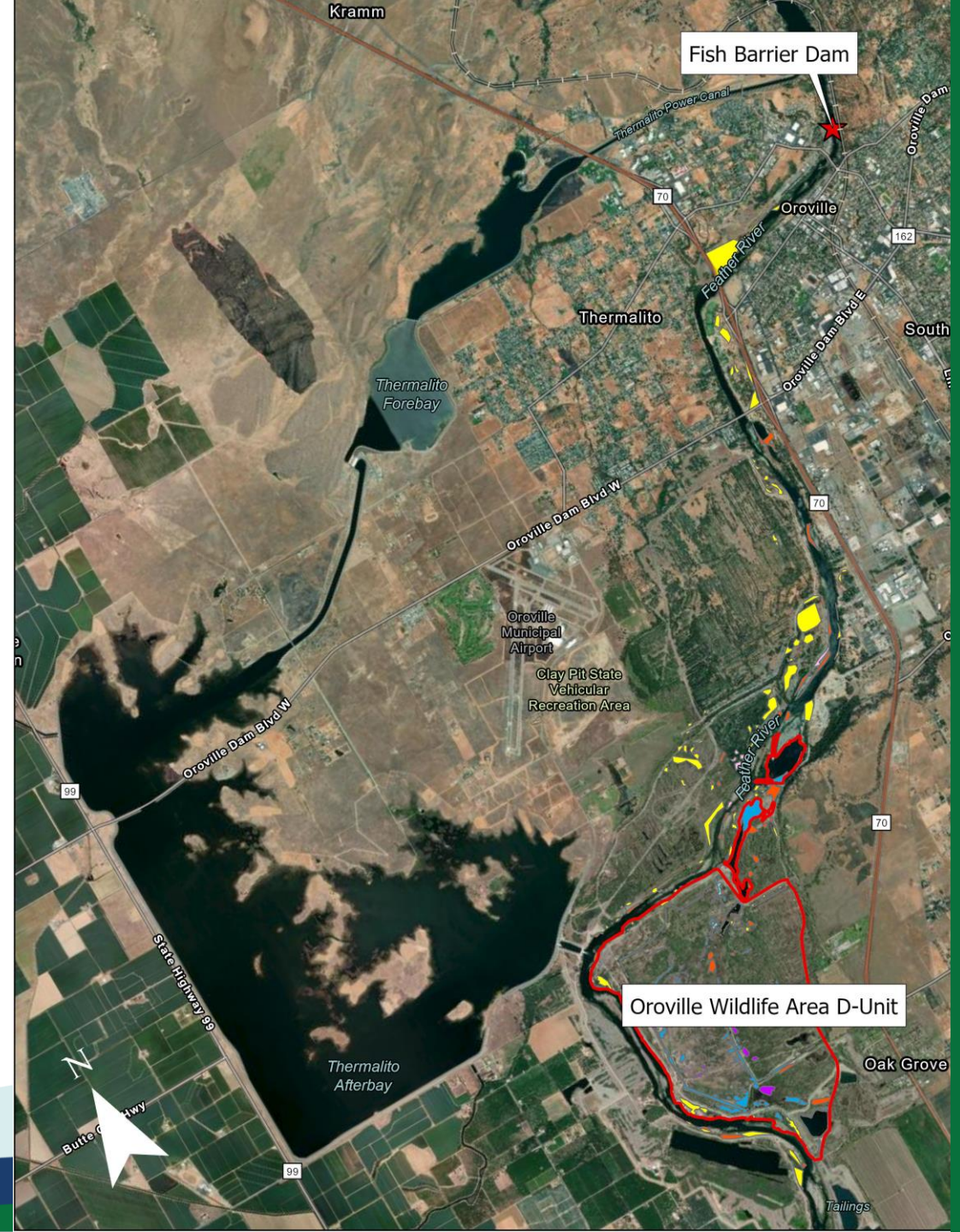
Species	2017	2018	2019
Water Primrose	364.5		
Purple Loosestrife	36.0		
Scarlet Wisteria	26.0		
Tree of Heaven	20.0		
Giant Reed	2.5		
Broom Species	1.0		
Total	450.0		



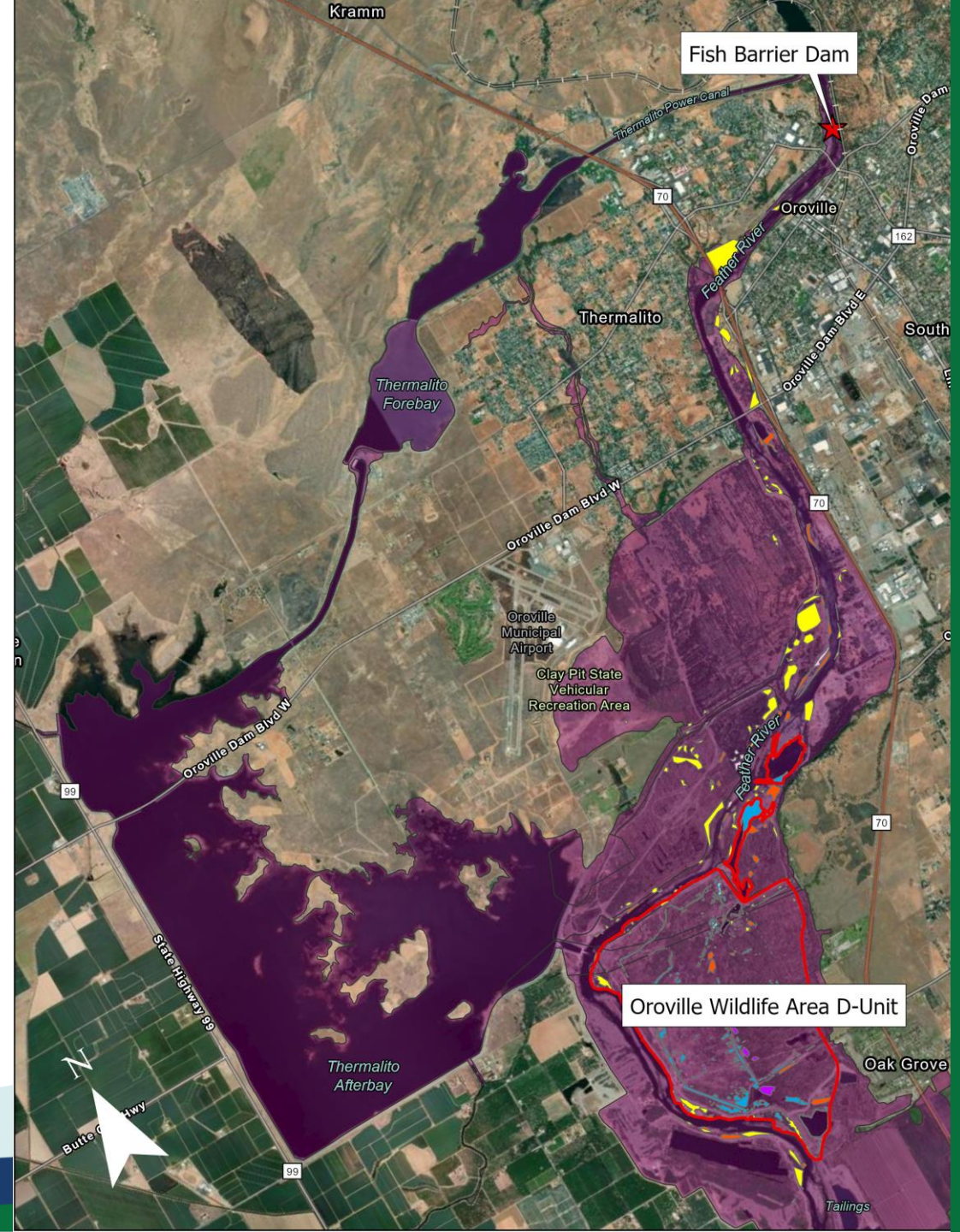
- Species mapped on OWA D-Unit, 2020.
- Water primrose reduced by 86%. Total weeds reduced by almost 75%.

Species	2017	2018	2019
Water Primrose	364.5	244.5	50.8
Purple Loosestrife	36.0	36.0	18.9
Scarlet Wisteria	26.0	26.0	25.4
Tree of Heaven	20.0	20.0	17.8
Giant Reed	2.5	2.5	1.3
Broom Species	1.0	1.0	1.0
Total	450.0	330.0	115.2

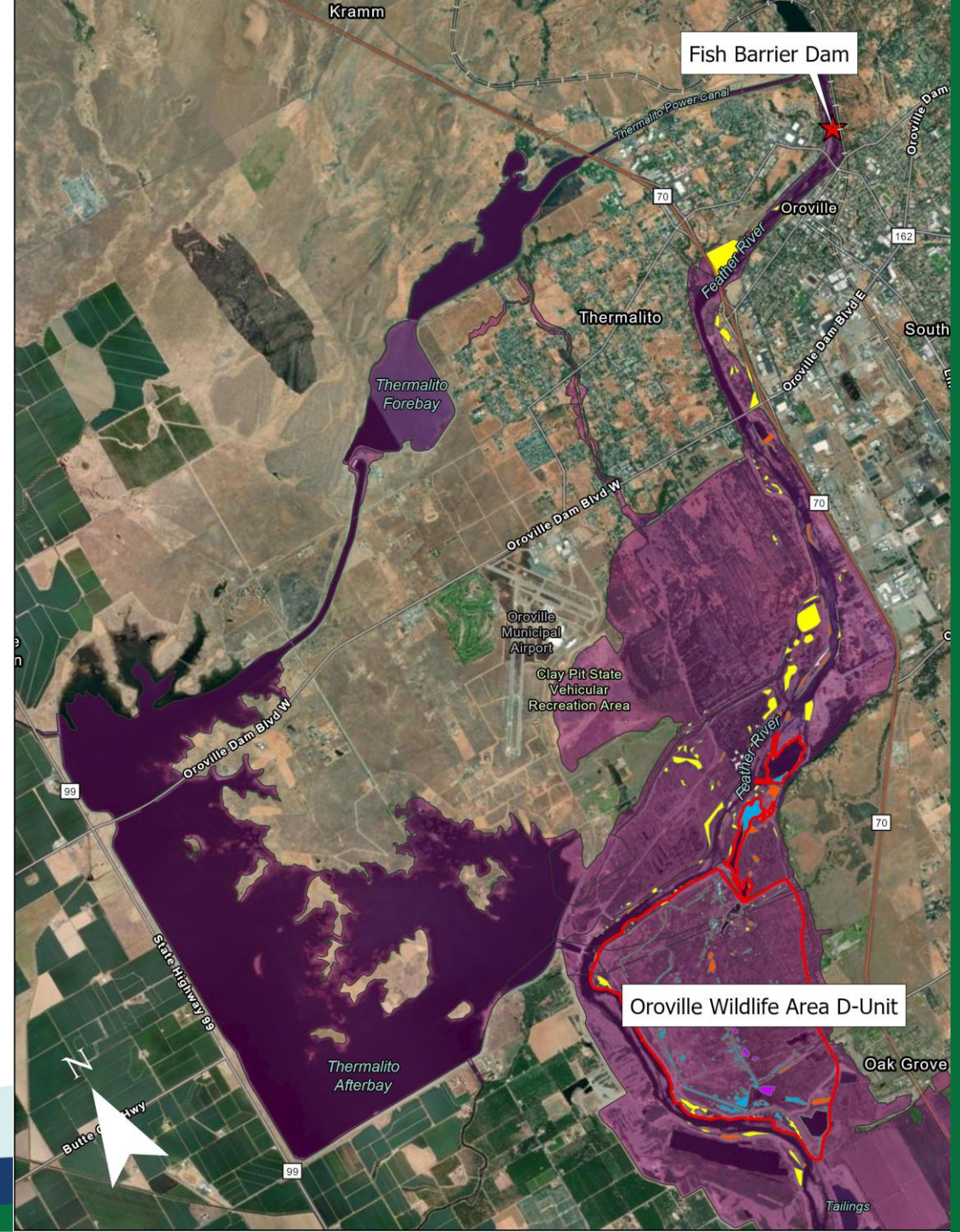
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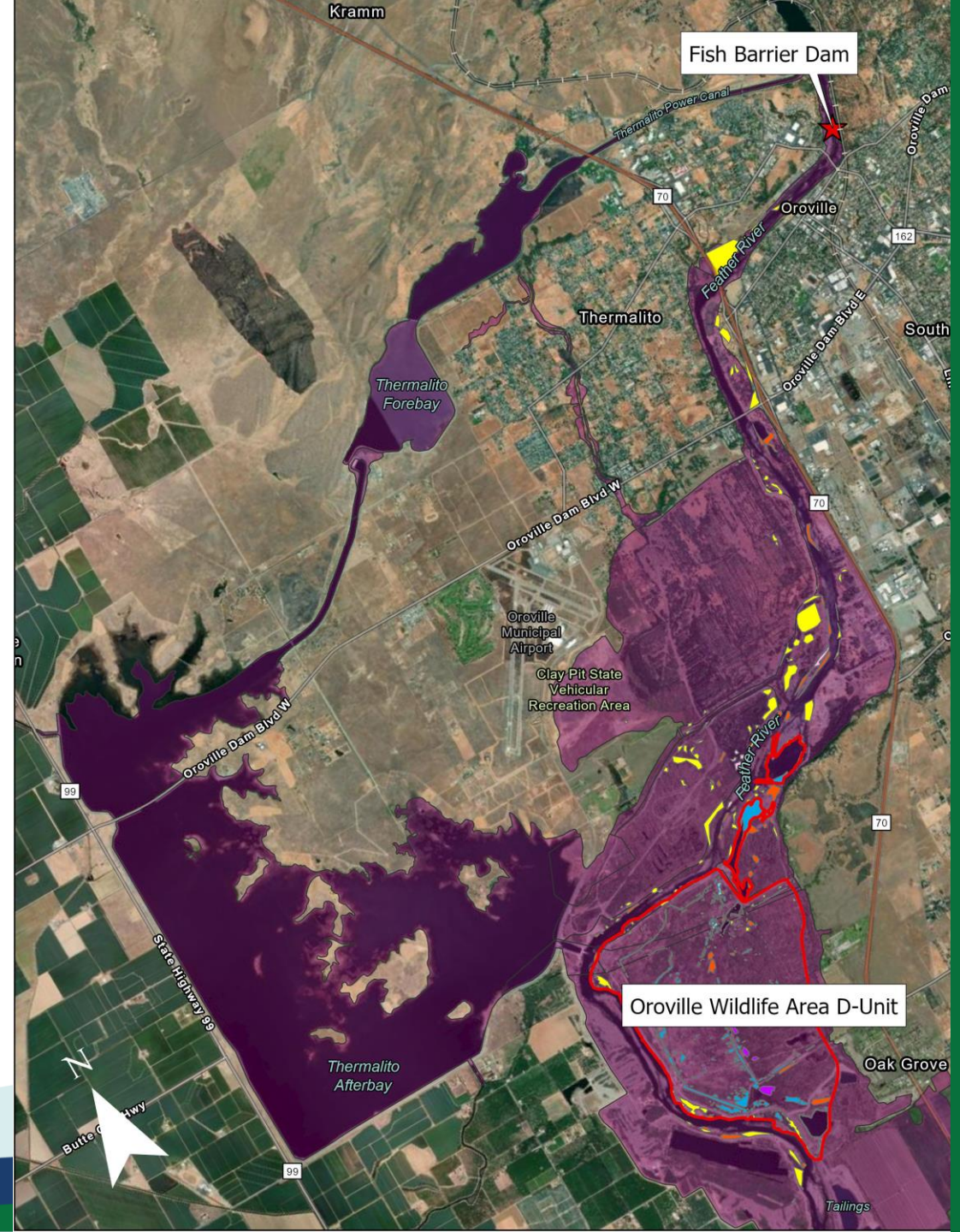
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- Weeds mapped are within the 100-year floodplain.
- Floodwaters carrying seeds and propagule from upstream are diverted onto the D-Unit.
- Treatment of upstream weed sources is essential to long-term management of invasive species re-colonization downstream.



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Phase II Goals and Objectives



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 - Objective 2: Remove invasive vegetation biomass, creating openings in the vegetation cover for native regeneration and facilitate ongoing removal and treatment of invasive plant resprouts.





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 - Objective 1: Create more open water habitat.





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- **Goal 2: Improve habitat for native plants and wildlife.**
 - Objective 1: Create more open water habitat.
 - Objective 2: Improve structural diversity to attract wildlife to nest and forage.



Phase II Implementation

- Invasive plant management.



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- Reseed with native forbs.



Phase II Implementation

- Invasive plant management.
- Reseed with native forbs.
- Continued monitoring of management efforts.





Next Steps

- Secure funding.



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- Secure funding.
- Begin project monitoring.
- Are methods still effective?



Next Steps

- Secure funding.
- Begin project monitoring.
- Are methods still effective?
- Bring life back to rivers!



Thank you!!

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adamanti@riverpartners.org



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