



Watershed Culverts Update

December 15, 2022



Agenda

- Watershed Culvert Planning
- Watershed Culverts Phase I
- Watershed Culvert Phase II

Watershed Culvert Project Info

<https://www.marinwater.org/watershed-projects>



Watershed Culvert Planning & Permitting

- Culver conditions assessment
- Culvert prioritization
 - Phase I 35 sites
 - Phase II 73 sites
- Roads and Trails Management Plan EIR
- Construction permits from
 - California Department of Fish and Wildlife 1600
 - Regional Water Quality Control Board 401 Certification
 - U.S. Army Corps of Engineers Nation Wide General Permit

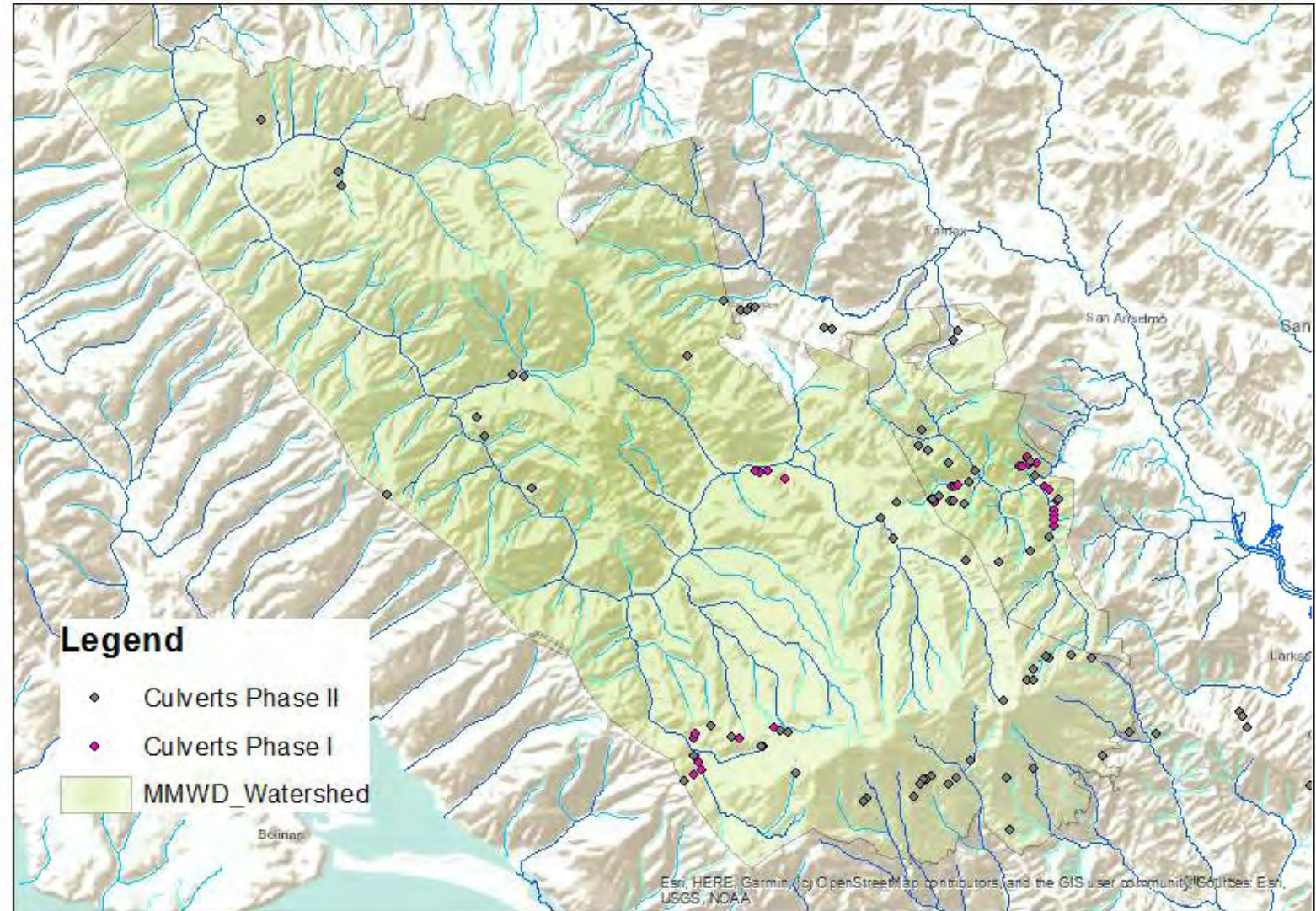
Watershed Culverts Projects

Phase I (2019-2022)

- 35 culverts

Phase II (2023-2027)

- 73 culverts



Watershed Culverts Projects-Phase I



Sky Oaks Road



Completed Watershed Culvert Projects



Bill Williams Fire Rd.

Completed Watershed Culvert Projects



Fish Grade Culvert Repairs



Completed Watershed Culvert Projects



Fish Grade Culvert 14



Fish Grade Culvert 13



Fish Grade Culvert 15



Alpine Bon Tempe Dam Road

Completed Watershed Culvert Projects



Marin Stables Culvert



Upcoming Culvert Projects



Old Railroad Grade Culvert



Eldridge Grade Culvert

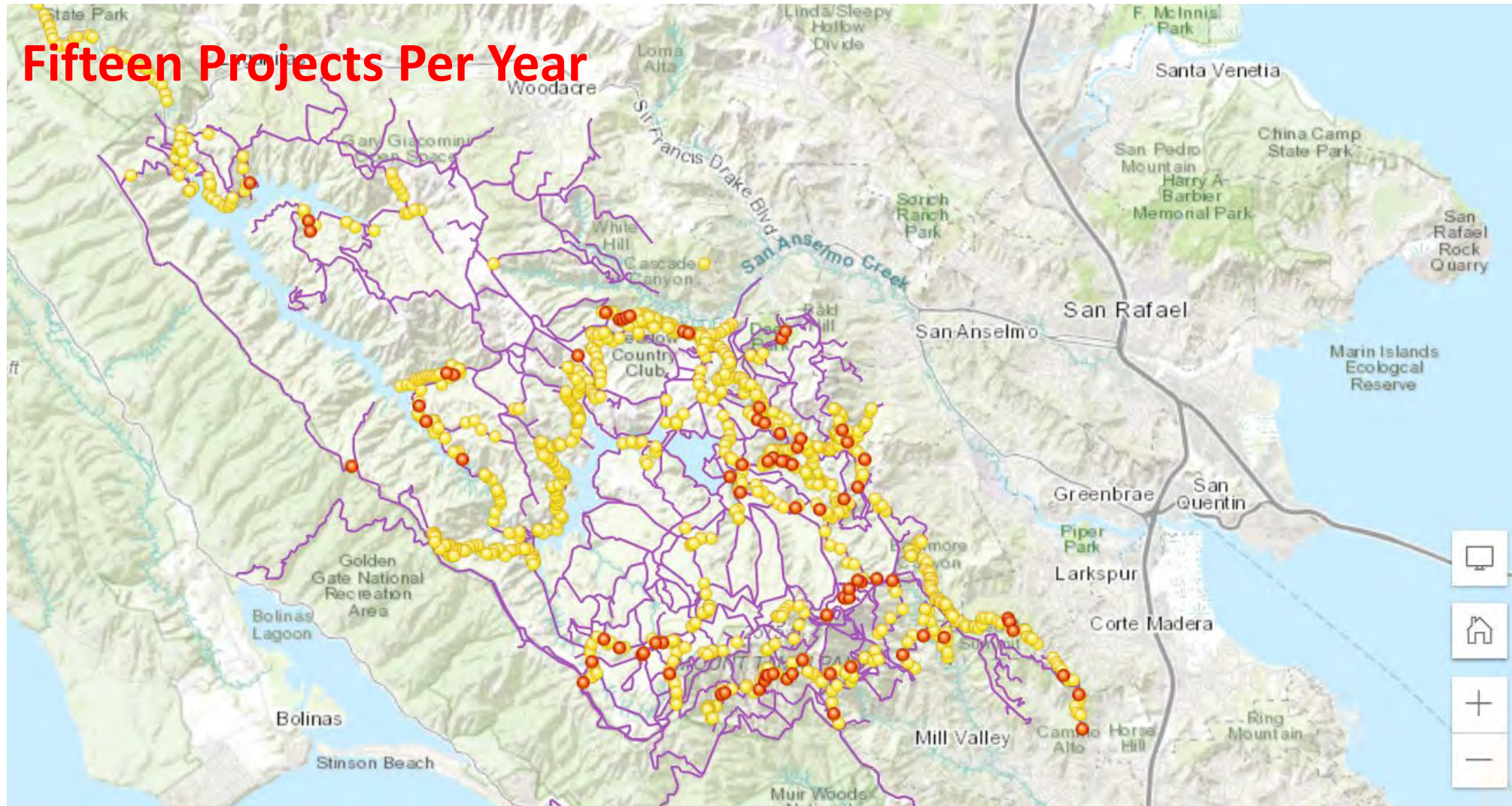


Soulajule 07 Culvert



Kent Pump 27 Culvert

Watershed Culvert Projects 2023-2028



Watershed Culvert Mitigation

- Best Management Practices to protect sensitive resources
- Avoidance measures-biological surveys and exclusion zones
- Post project erosion control measures
- Mitigation for temporary impacts
 - Replacement of culverts with rock crossings
 - Phase I .61 acres of mitigation
 - Phase II mitigation under review and negotiation
- Identify and design watershed mitigation project

Thank You

