# Update to Lake Elsinore and Canyon Lake Nutrient TMDL Task Force

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2/22/2021



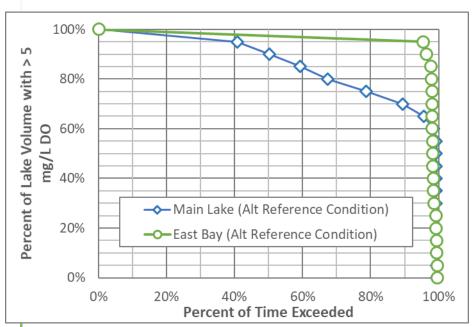


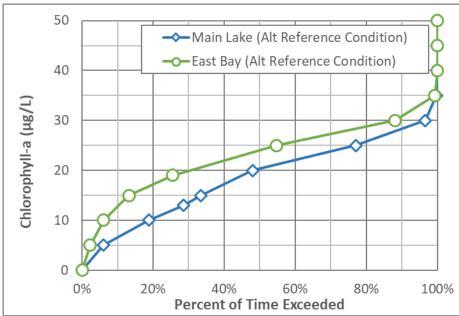
### A Dynamic Time for the Task Force

- MS4 permit pending,
  - TMDL implementation requirements for current TMDL (aka 2004 TMDL)
- TMDL revision tuning,
  - Revised TMDL with increased nutrient load reduction and improved linkage to water quality response targets
  - Cost share calculations based on watershed model for TMDL revision
- Cyanotoxin regulations evolving,
- Lake models are migrating,
- LEAMS is aging, watershed loads are declining, CL alum is working,
- Global pandemic is taxing

## AEM3D: Canyon Lake

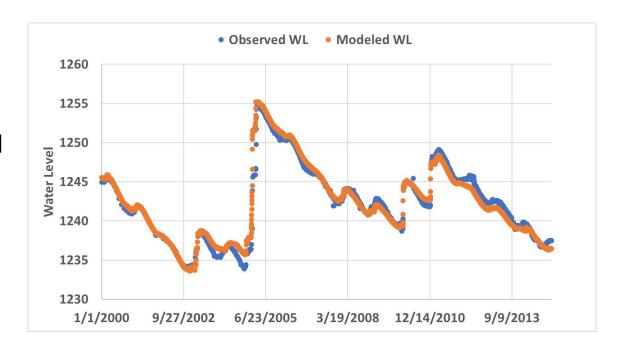
Preliminary results for alternative reference scenario



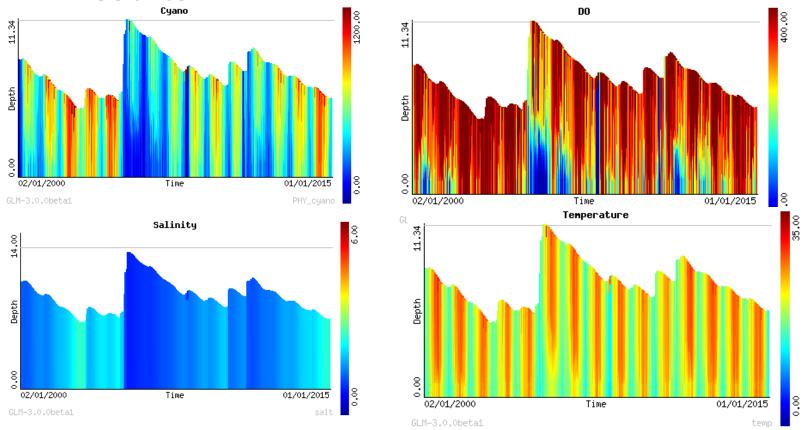


## Lake Elsinore Migration

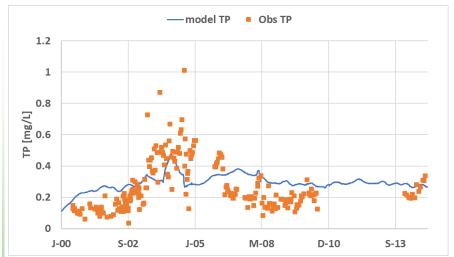
- Migration nearly complete
  - Finalizing
  - Extending model through 2020
- Preparing sensitivity simulations

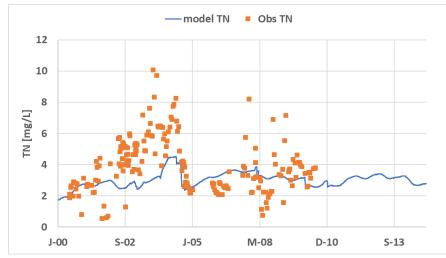


#### **GLM** Results



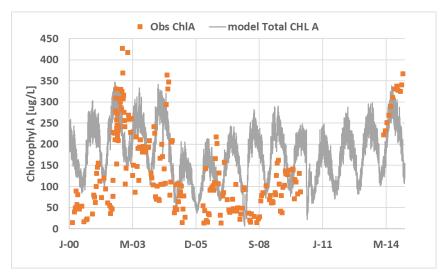
#### **Lake Elsinore Nutrients**

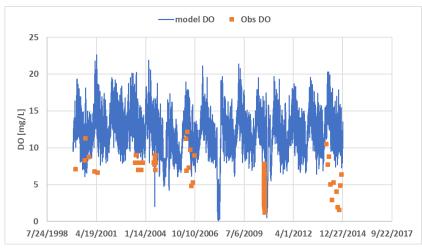




## Lake Elsinore Dissolved Oxygen and Chl A

Model results from 2 meters below water surface





## Future Uses of Migrated Models

- Compliance assessment approach in revised TMDL
- Simulation of potential enhanced or new in-lake controls, and lake water quality improvements from increasing watershed BMP deployments