

Update to Lake Elsinore and Canyon Lake Nutrient TMDL Task Force

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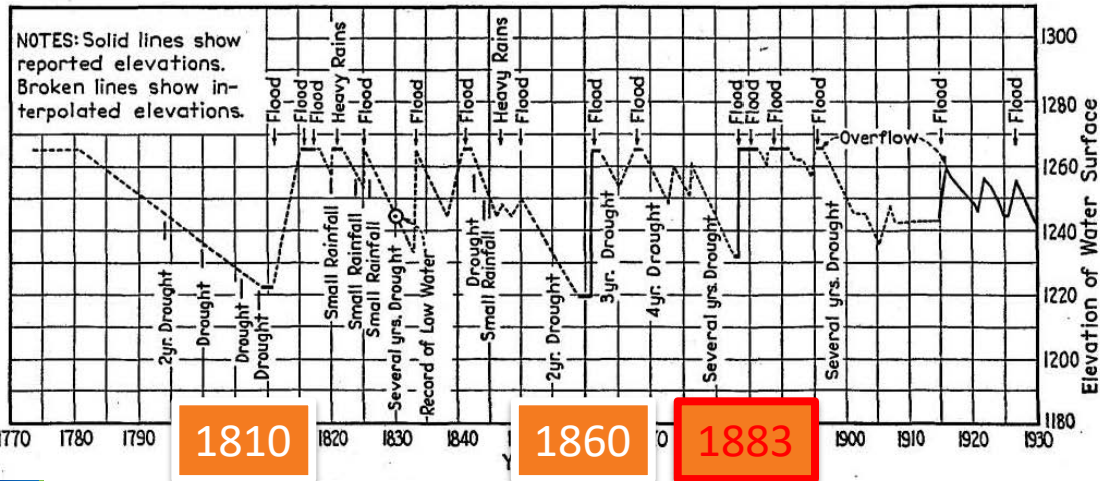
3/22/2021



**CDM
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Lake Elsinore Hydrologic Cycles

- Key element of TMDL revision involves multidecadal hydrologic cycles, including complete lakebed desiccation



Source: Lake Elsinore Historical Society, 2008



Figure 2-10. Comparison of Lake Level Extremes in Lake Elsinore (Source: Fortnight: The Magazine of California 1954)

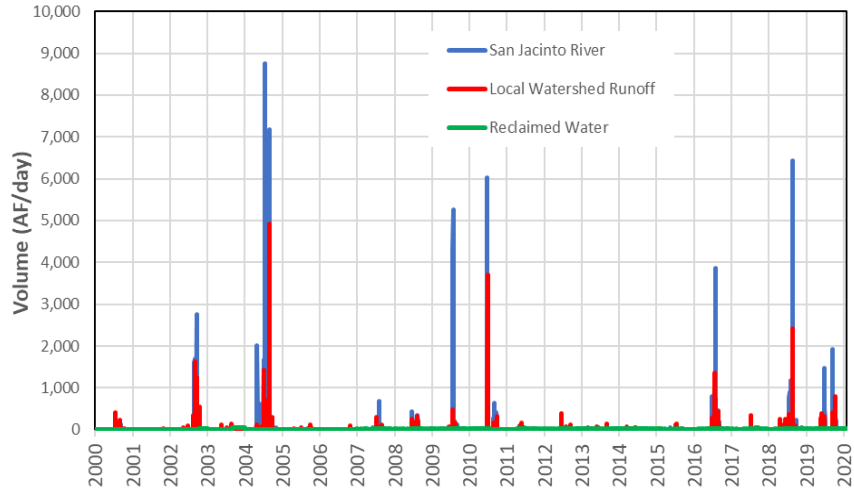
Lake Elsinore Hydrologic Cycles

- Migration to GLM captures same wet and dry cycles as was simulated using DYRESM-CAEDYM
- Complete lakebed desiccation observed 1956-1964
- Complete lakebed desiccation predicted without implementation projects 2015-2017

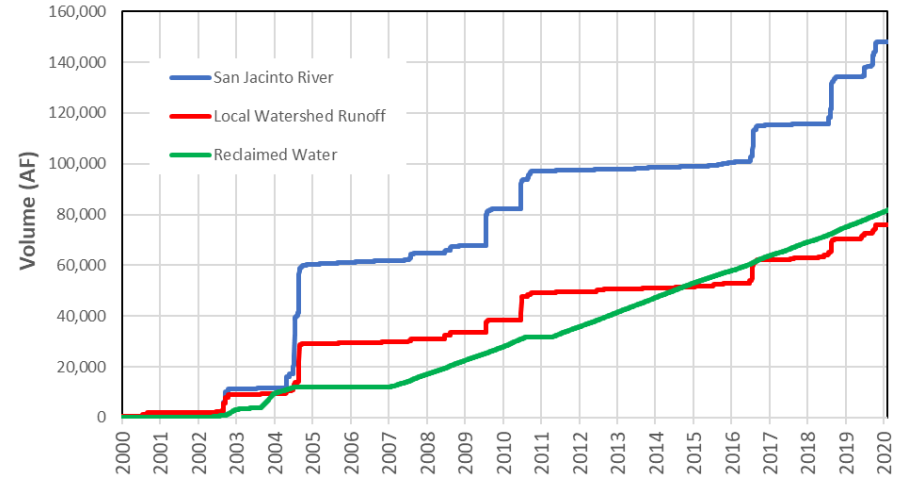
Lake Elsinore Hydrologic Cycles

- Updates to Lake Elsinore inflow volume for new models

Inflow Volume to Lake Elsinore (2000-2020)



Inflow Volume to Lake Elsinore (2000-2020)

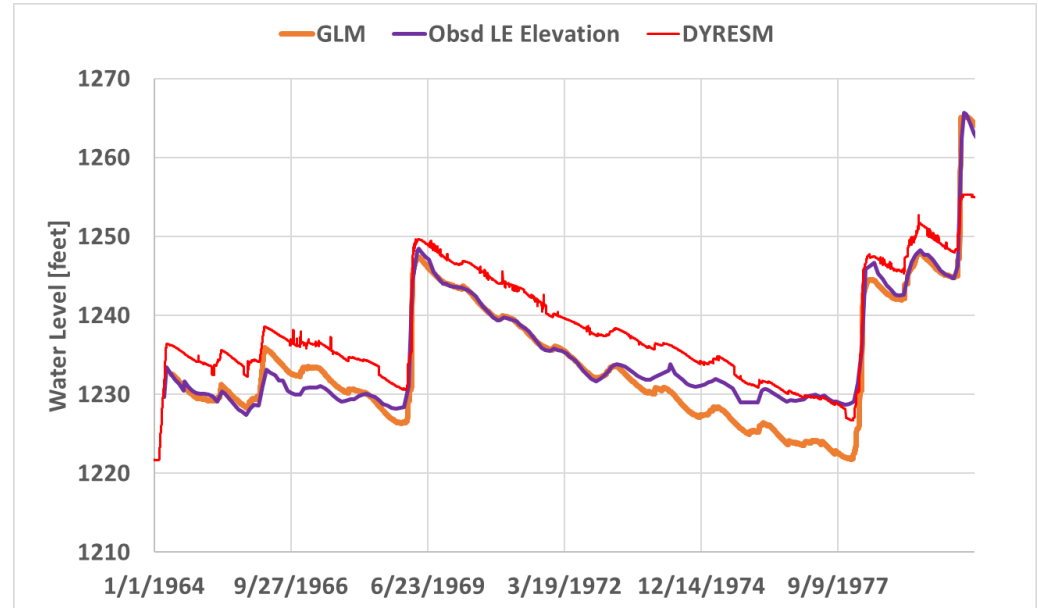


Collaboration with Regional Board

- Kicked off series of six workshops with modeling experts and Regional Board staff on March 18
 - Share insights about the models to give RB staff knowledge needed to present and defend the scientific basis of TMDL revision
 - Supplemental modeling scenarios to evaluate sensitivity and consider alternative reference conditions

Historical Data Comparison

- Reference Simulations should match historical observations
- Period of comparison: 1964-1980
 - From fully dry to overflowing



DYRESM Comparison

- Reference GLM simulation with levee aligned with DYRESM
- Ongoing work: Without levee, alternative nutrient assumptions, lake dynamics in 2017-2020

