Sustainable Groundwater Management Act Update

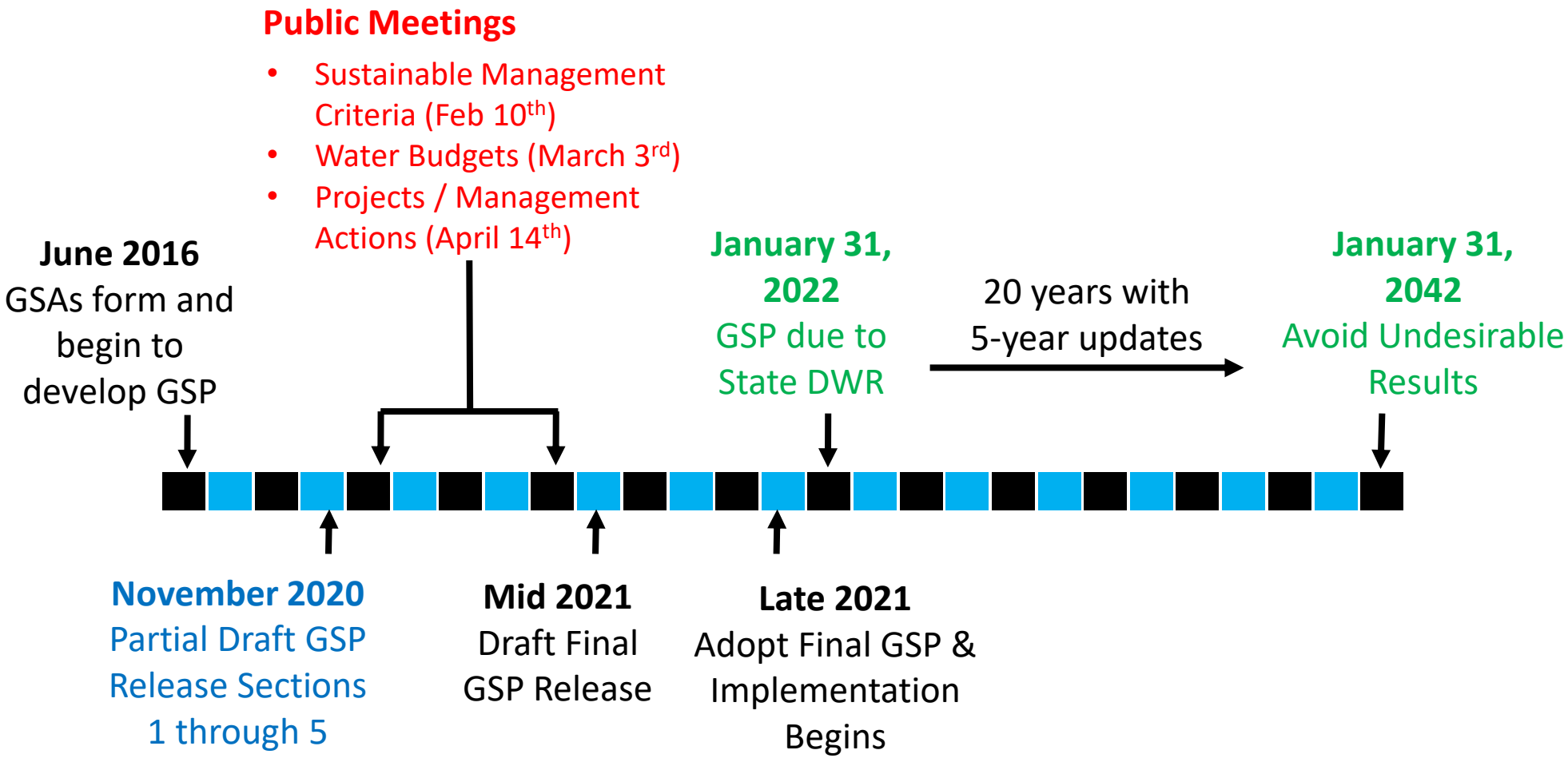
February 11, 2020

SGA

Current Status

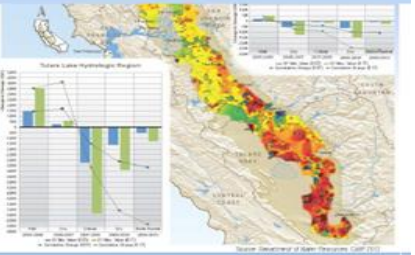
- Hydrogeologic Setting and Current Conditions released for review in early November – little comment received
- Model calibrated and projected conditions run
  - Brief SGA Board in April
- Good progress on developing approach to SMCs related to water levels
- Draft water quality-related SMCs
- Beginning development of GSA Implementation Agreement
  - Facilitated meeting scheduled for March 2

Timeline – GSP development and adoption

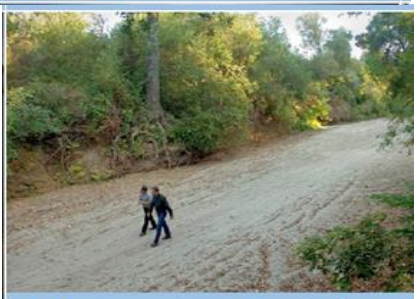


Demonstrating Sustainability Under SGMA

Lowering of GW Levels

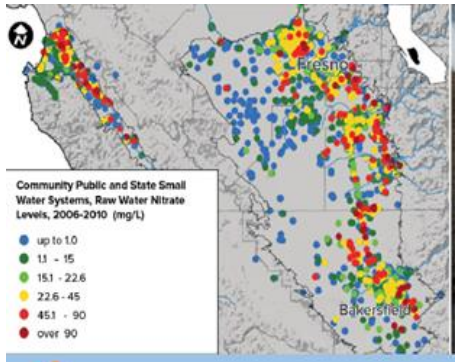


Reduction of GW Storage

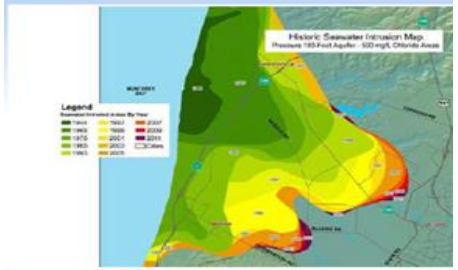


Depletion of Interconnected Streams

Land Subsidence



Water Quality Degradation



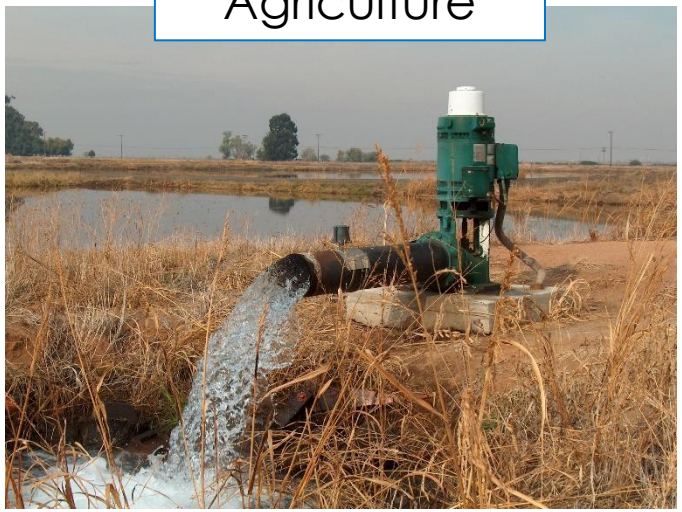
Seawater Intrusion

Define ***significant and unreasonable*** undesirable results for six indicators (five in our case)

- In consideration of <u>beneficial uses and users</u>
- Establish criteria to track progress (<u>measurable objectives and minimum thresholds</u>)
- Develop a <u>representative monitoring network</u>

Beneficial Uses and Users

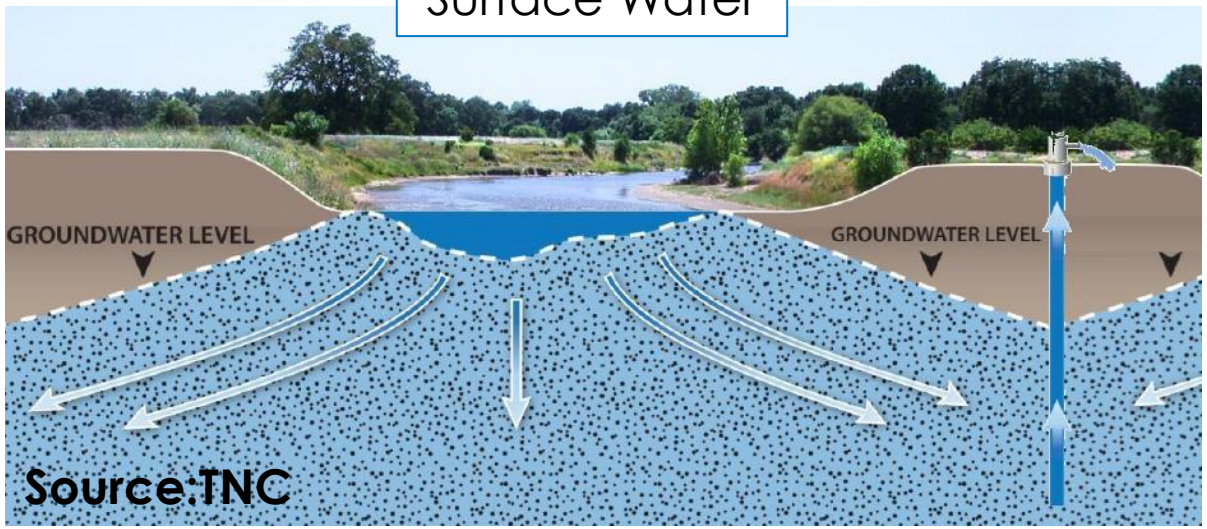
Agriculture



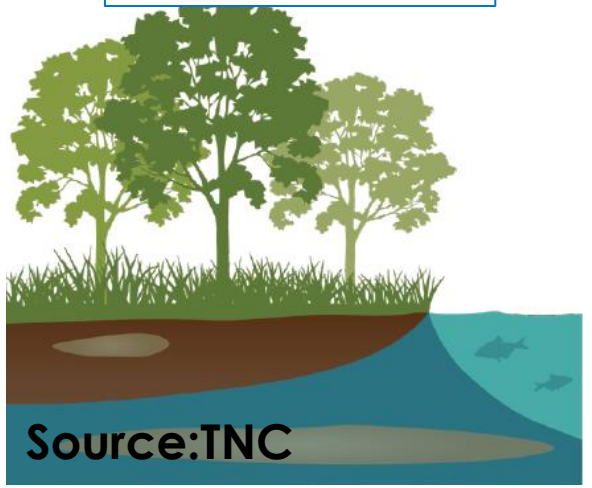
Municipal

Domestic

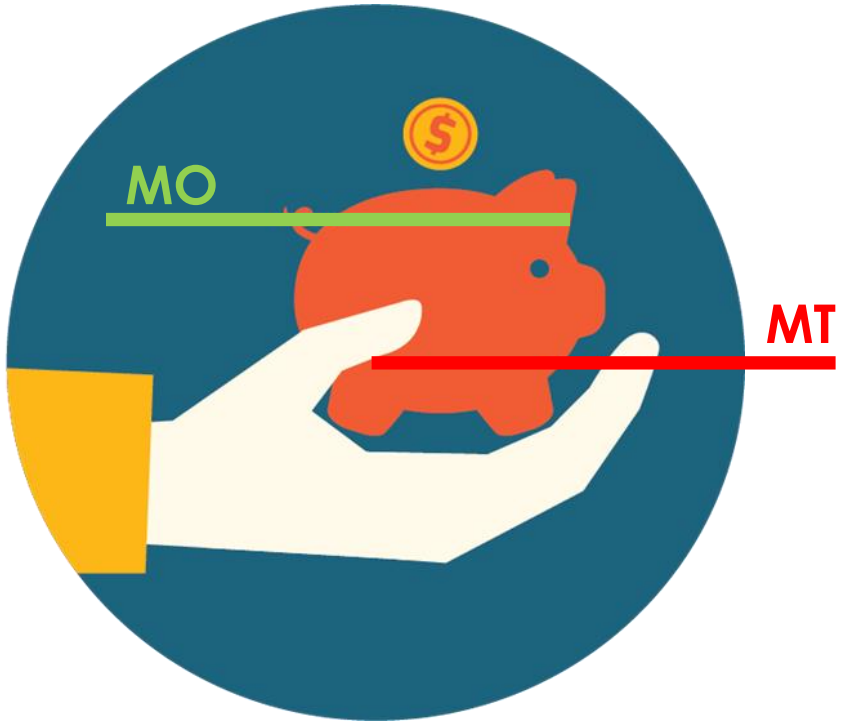
Surface Water



Environment



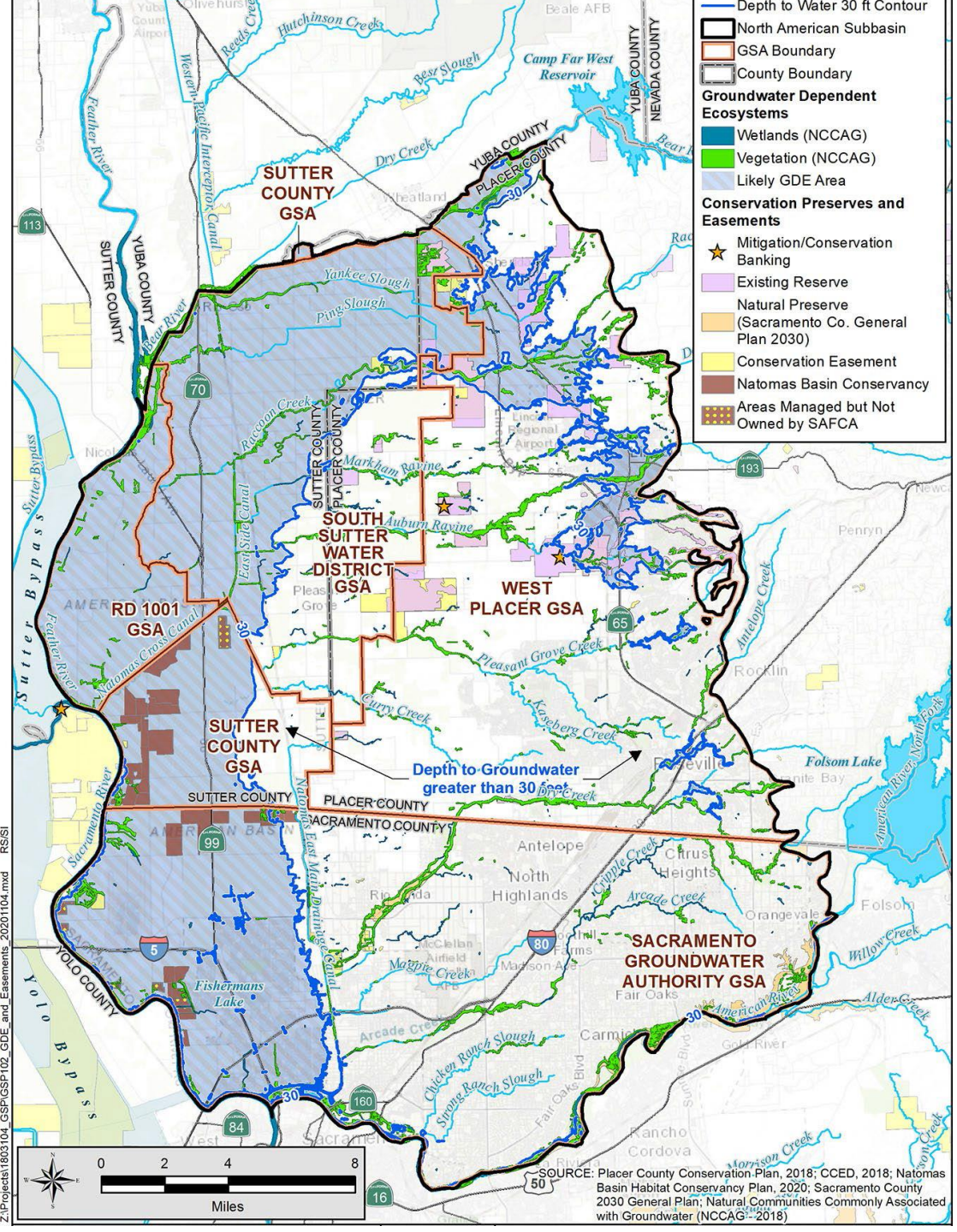
Measurable Objectives and Minimum Thresholds

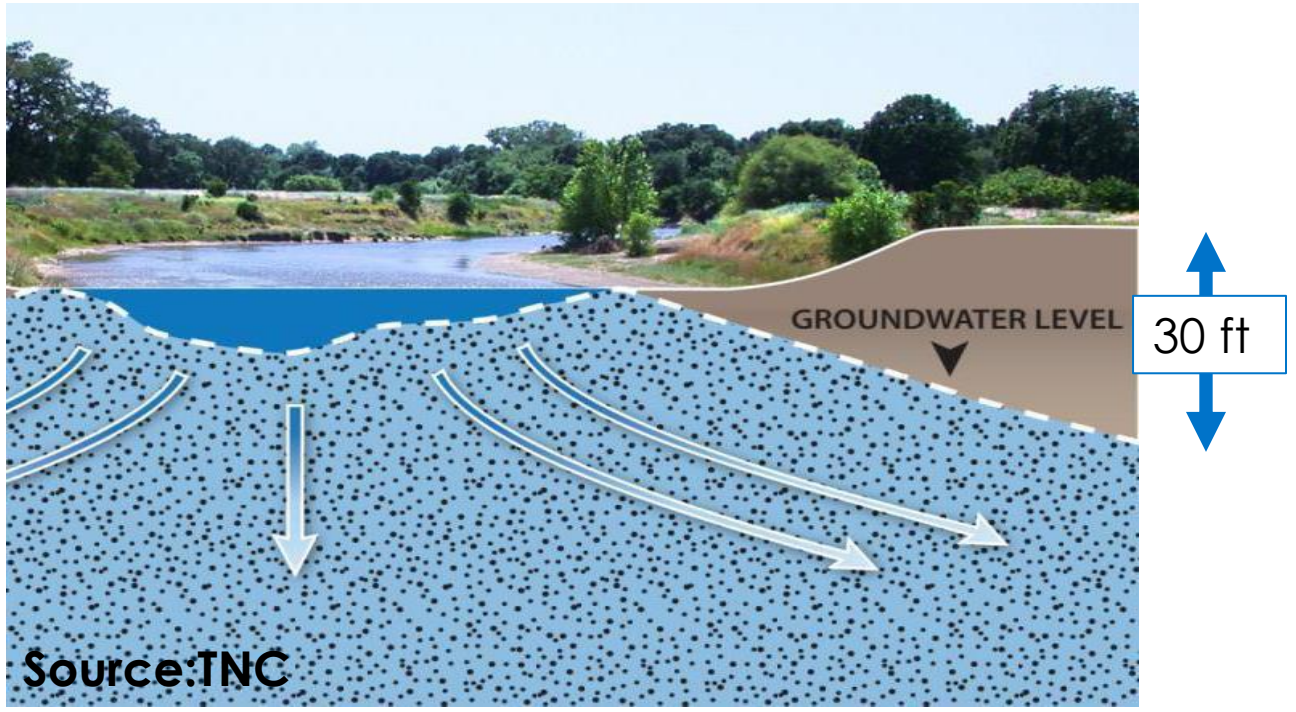


Measurable Objective (MO) = levels that reflect desired conditions…that enable GSA to achieve sustainability

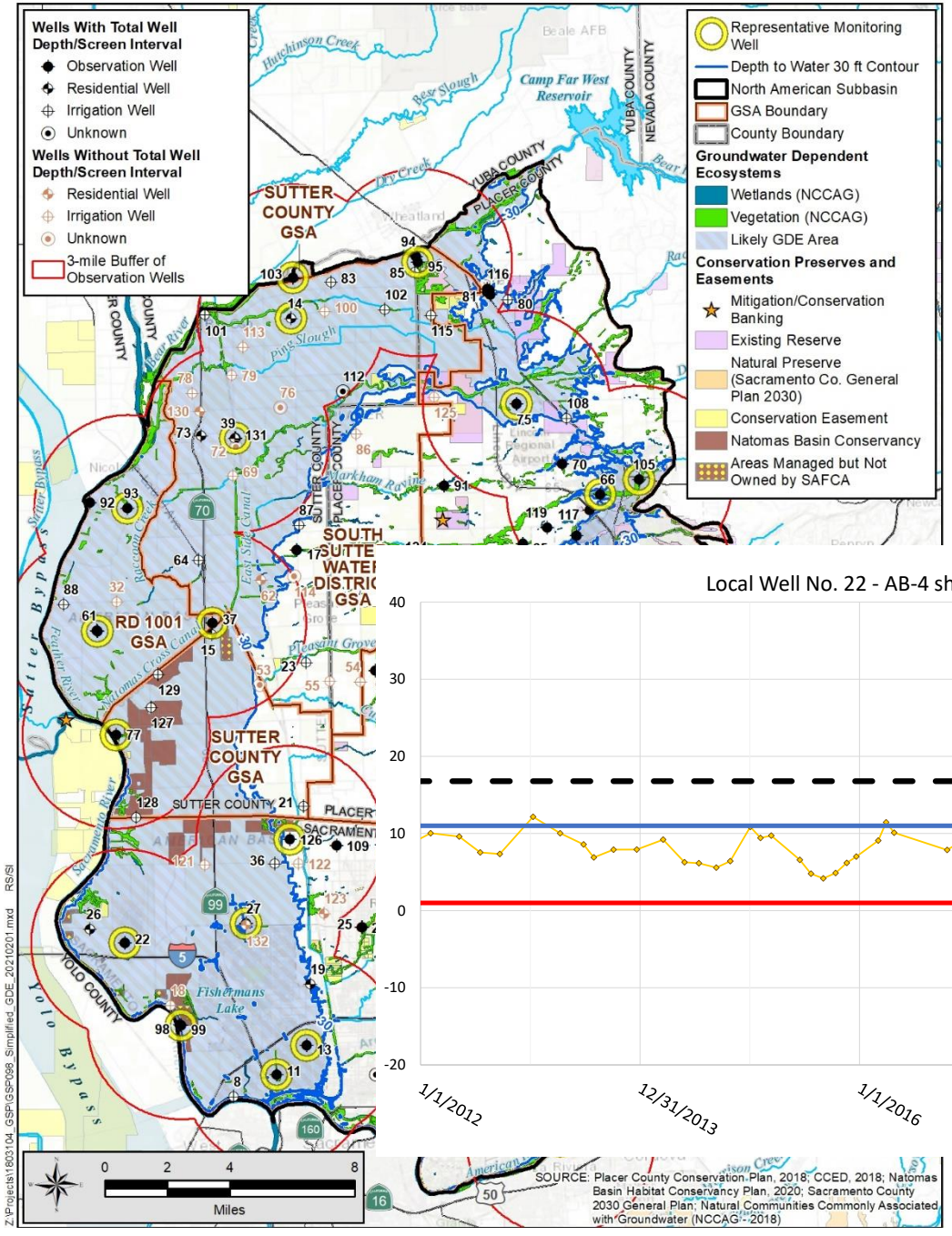
Minimum Threshold (MT) = levels at a site that when exceeded, either individually or at a combination of sites, may cause undesirable results

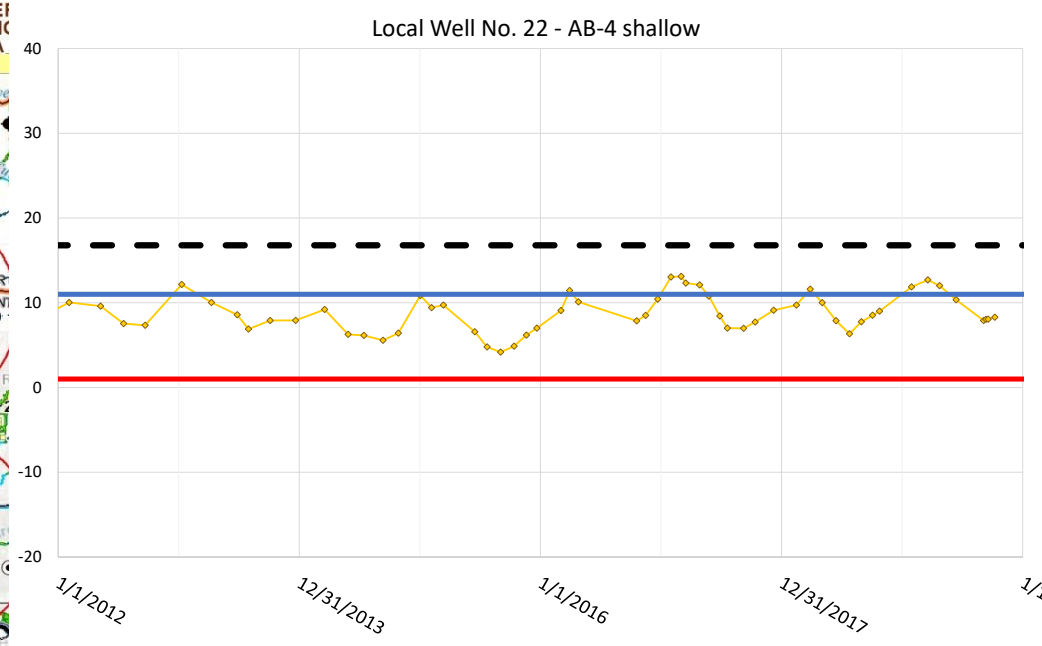
Addressing Surface Water and Environment Users MOs and MTs

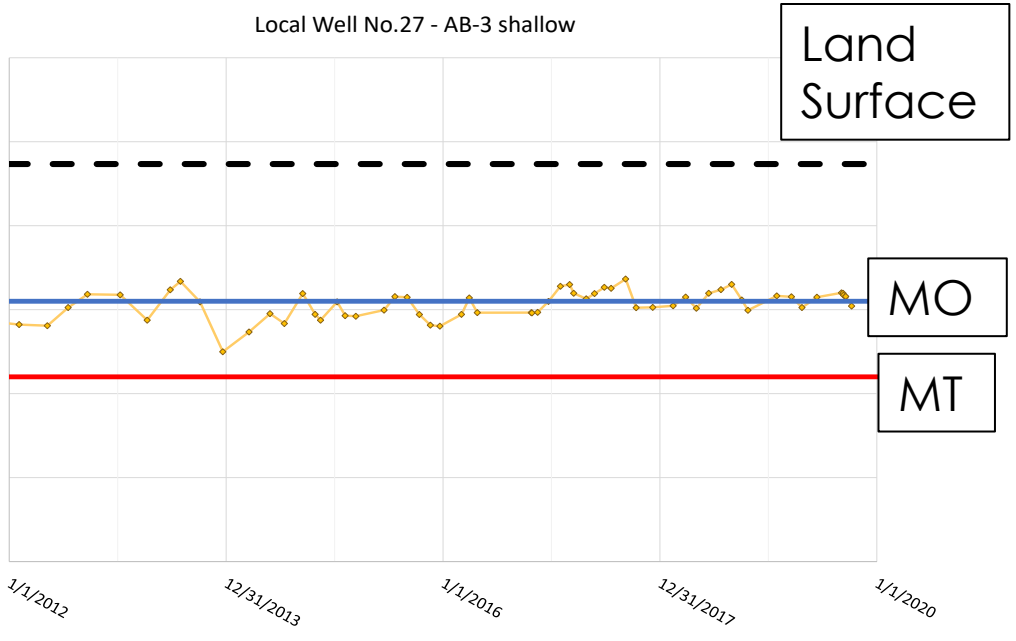




Surface Water and Environment Users Draft MOs and MTs Approach

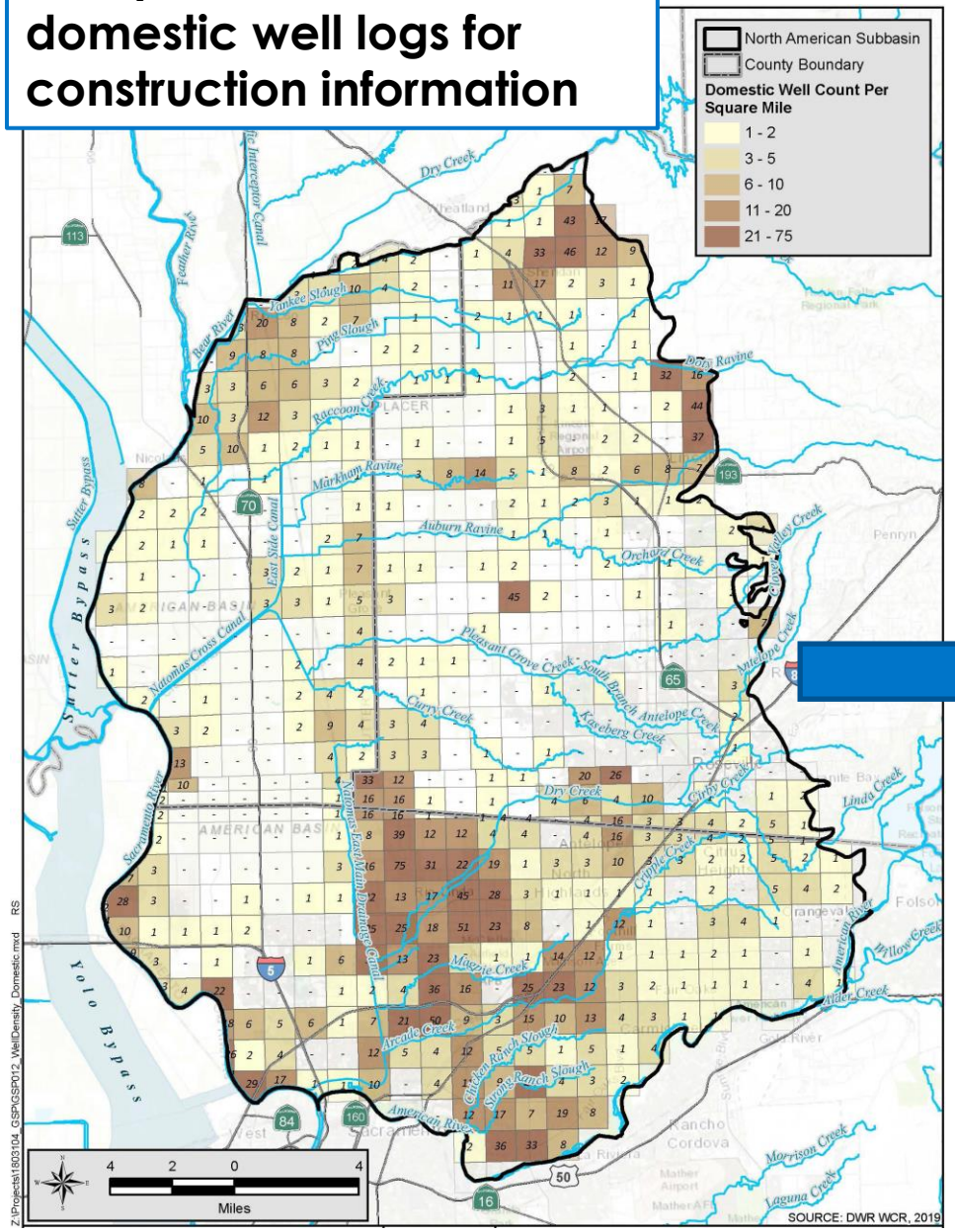


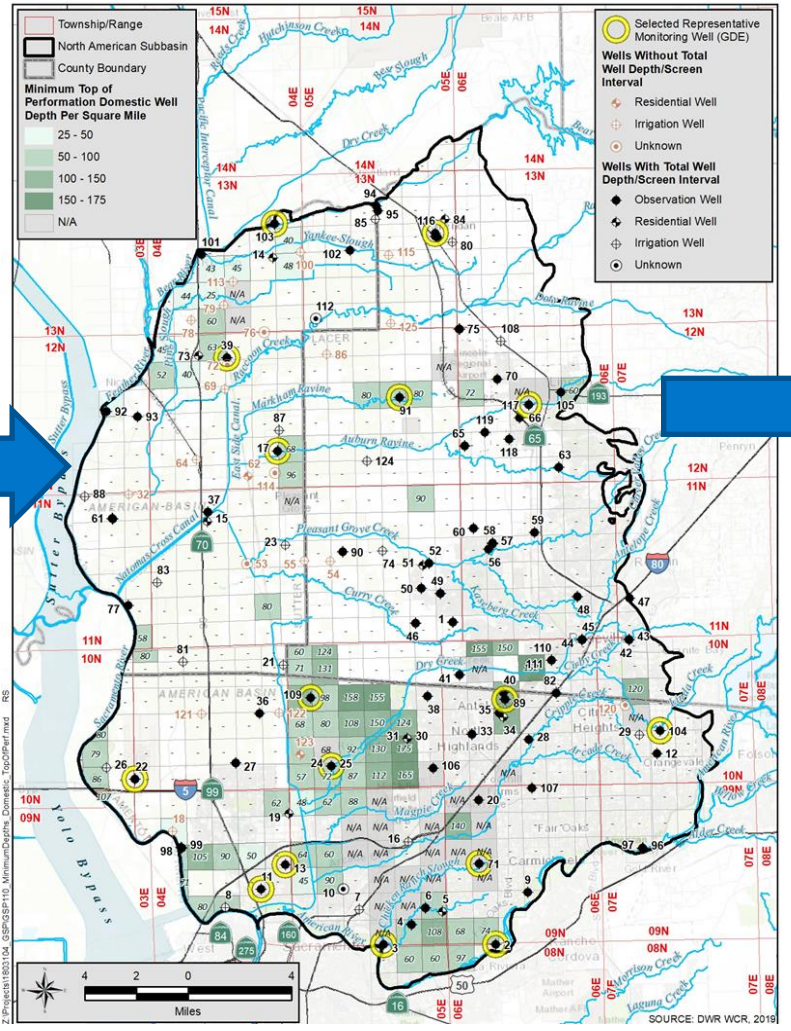


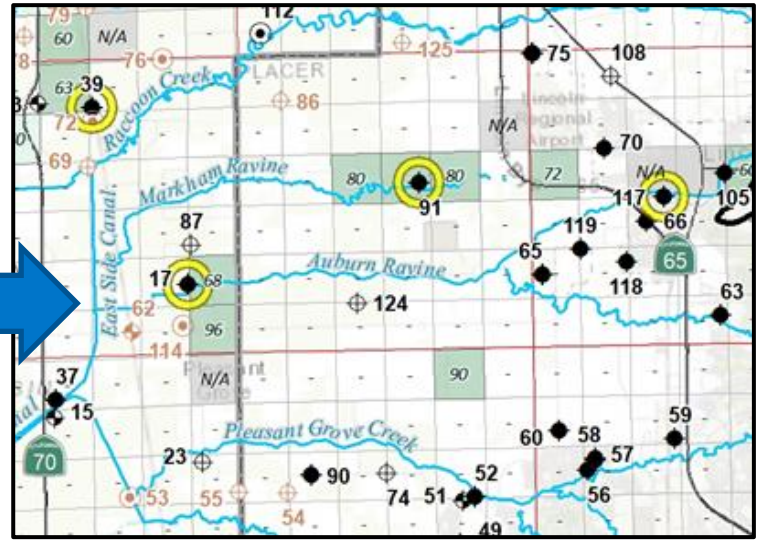


MOs and MTs for Groundwater Users

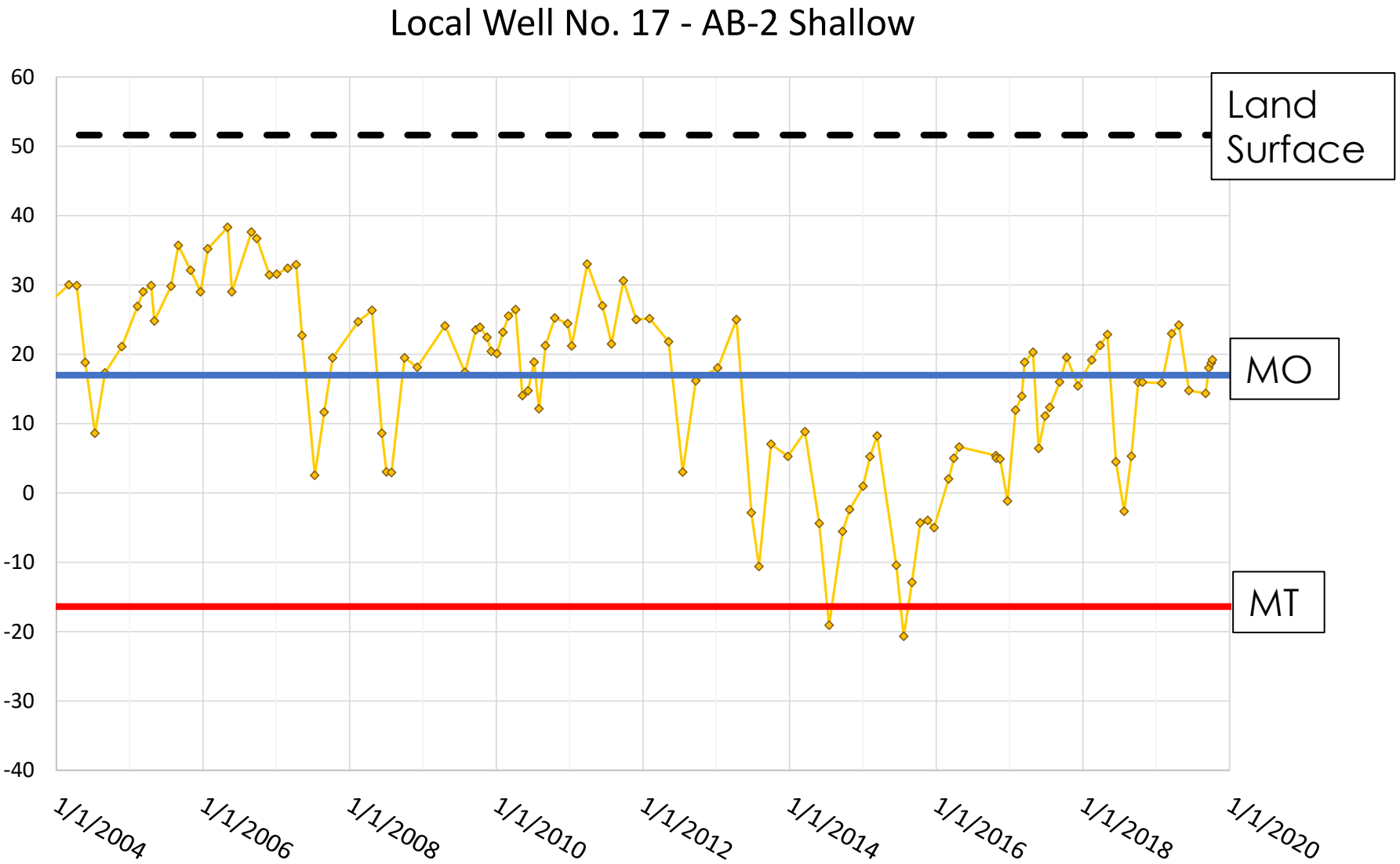
Analyzed more than 1,800 domestic well logs for construction information

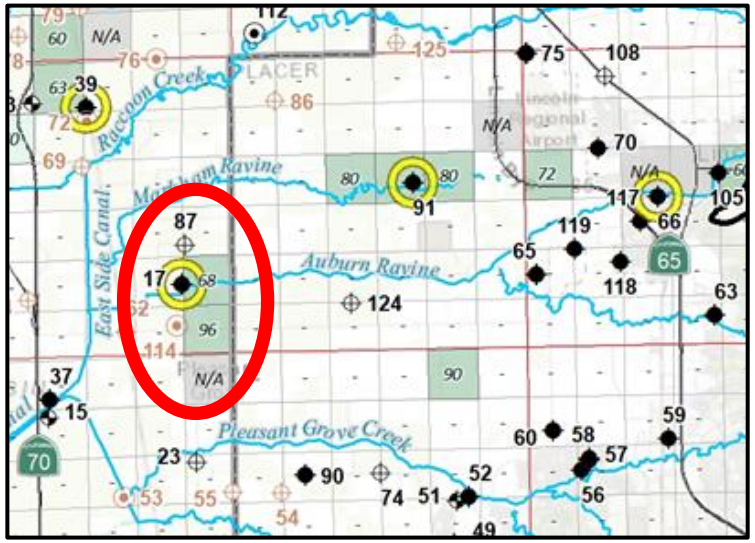


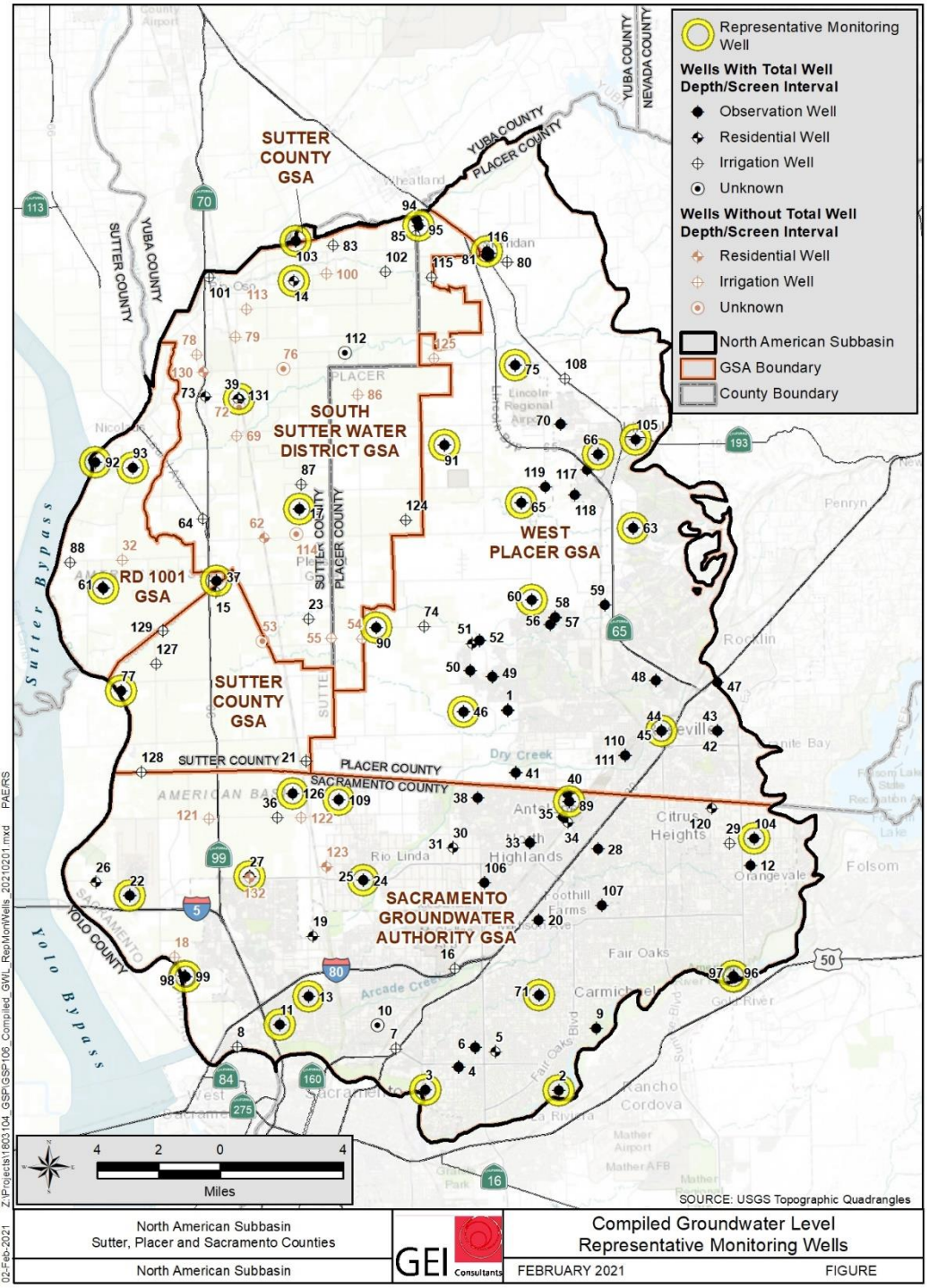




Example Draft MO and MT for Domestic Well Users







Current Draft Representative Water Level Wells

- Good coverage – more than 40 wells
- More than six wells per hundred square miles
- Will continue to refine through time

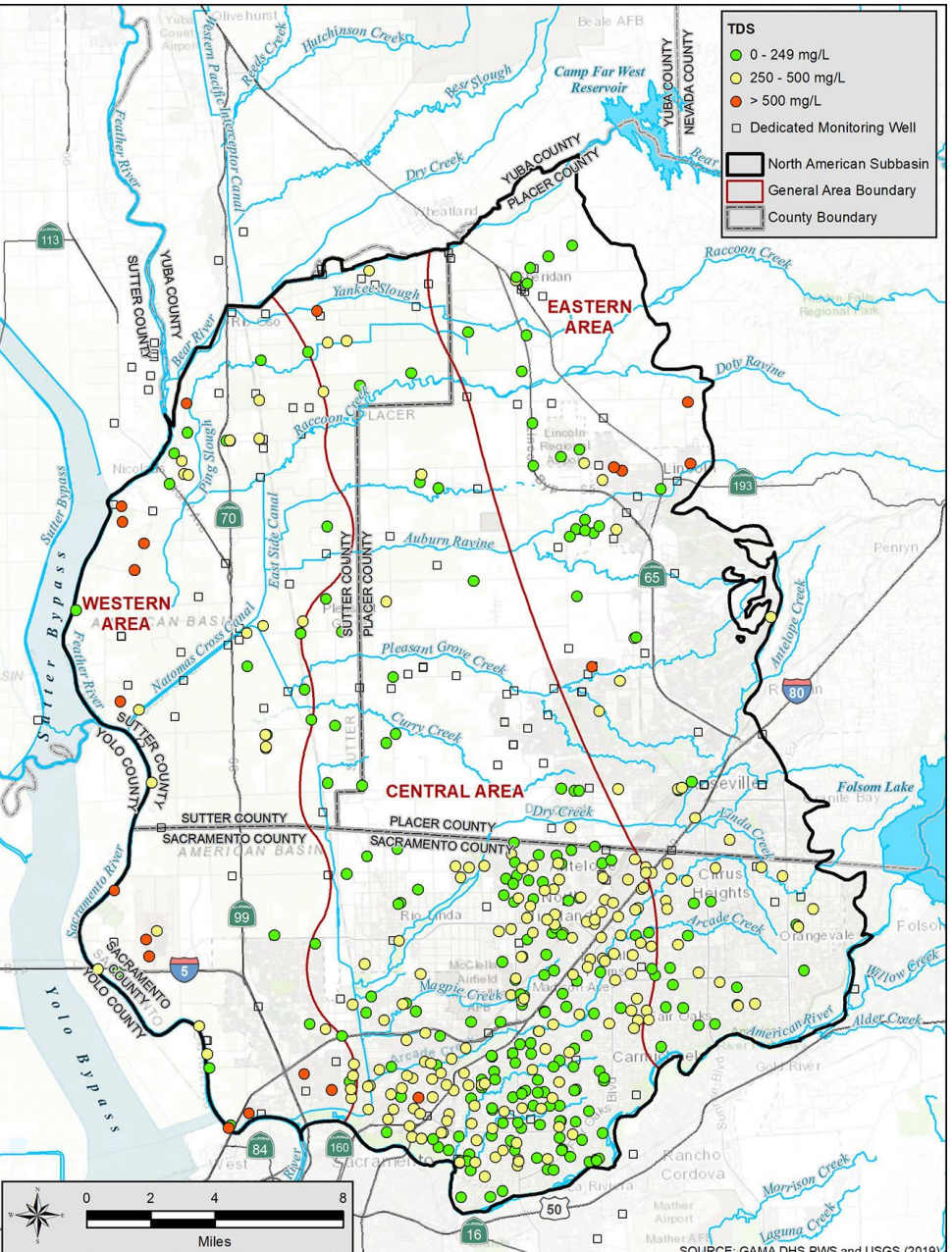
Water Quality MOs and MTs

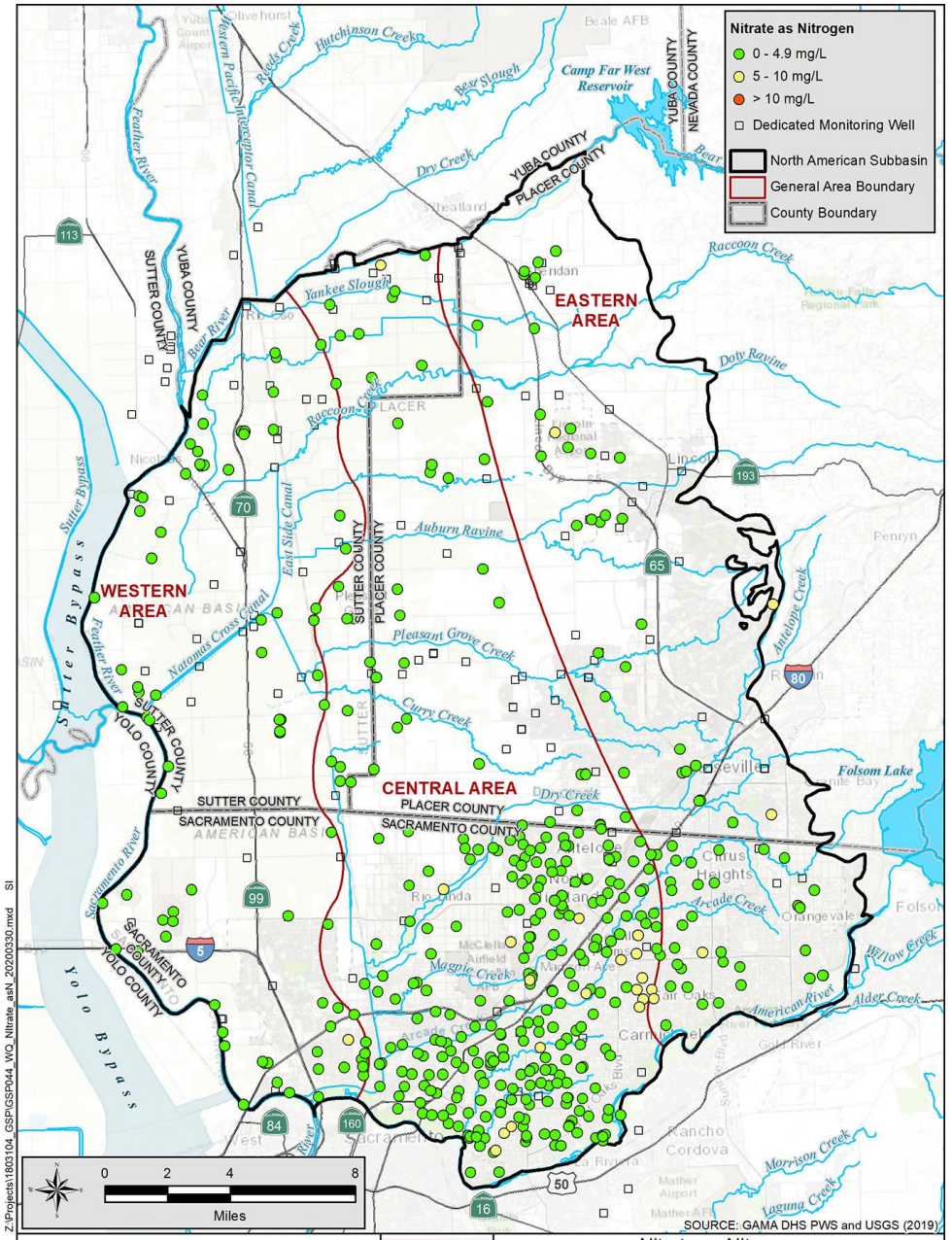
Set for Total Dissolved Solids (TDS) and Nitrate

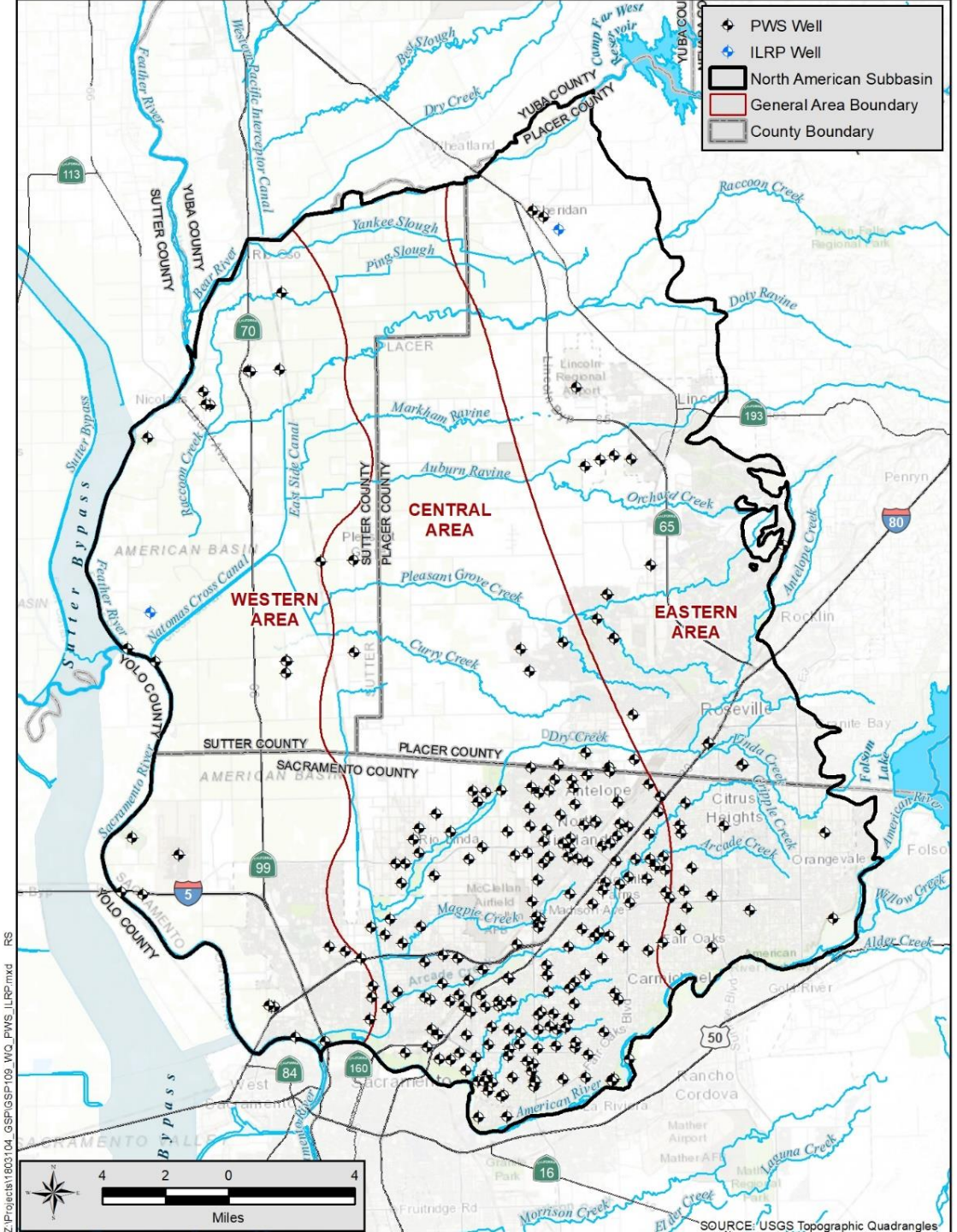
Measurable Objective (MO) = Average of current concentrations

Minimum Threshold (MT) = Drinking Water Maximum Contaminant Level (MCL)

Current Water Quality Conditions

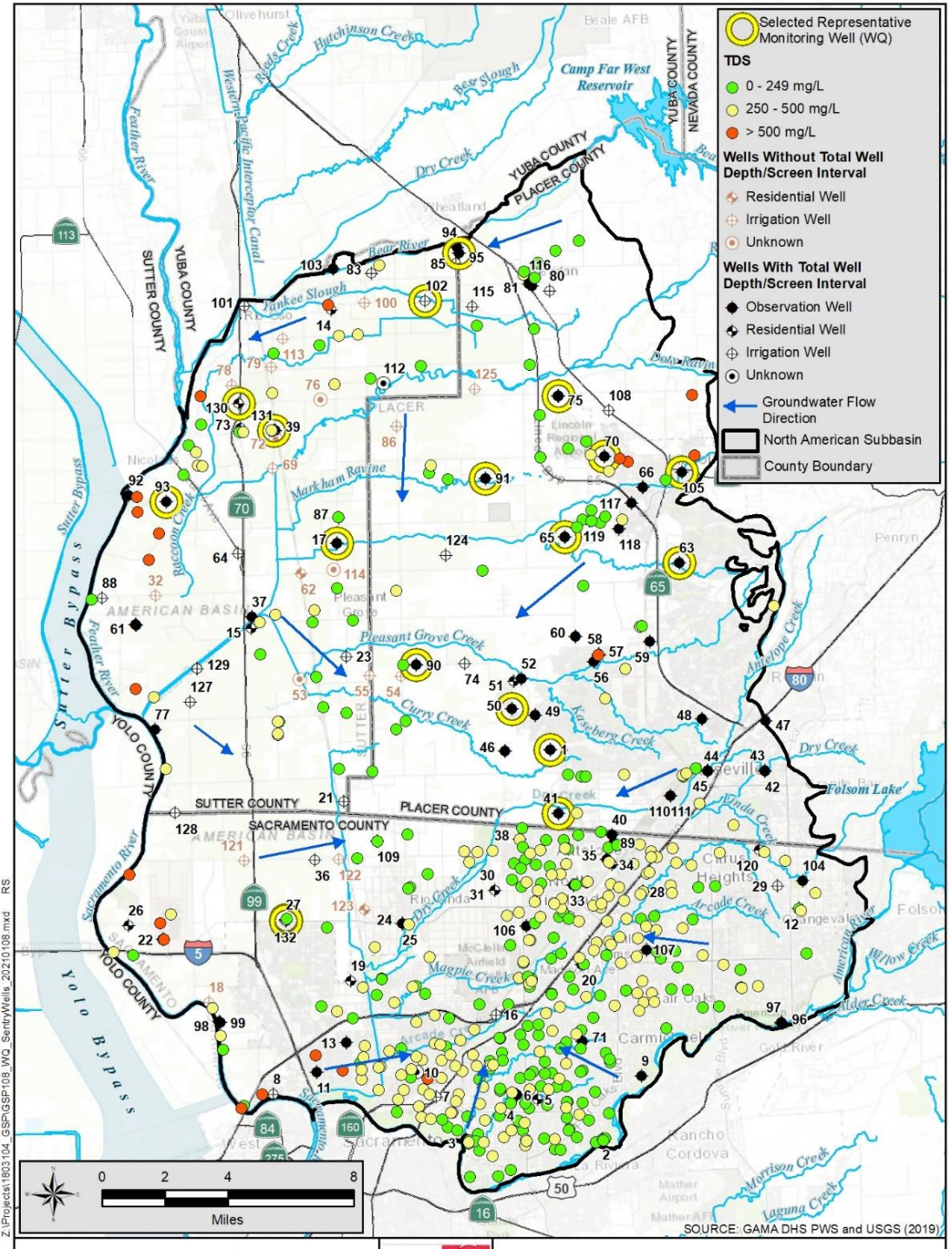






Water Quality Approach

- Use public water supply and Irrigated Lands Regulatory Program wells that already analyze for TDS and nitrate
- Use <u>sentry wells</u> near areas high TDS



Sentry Wells

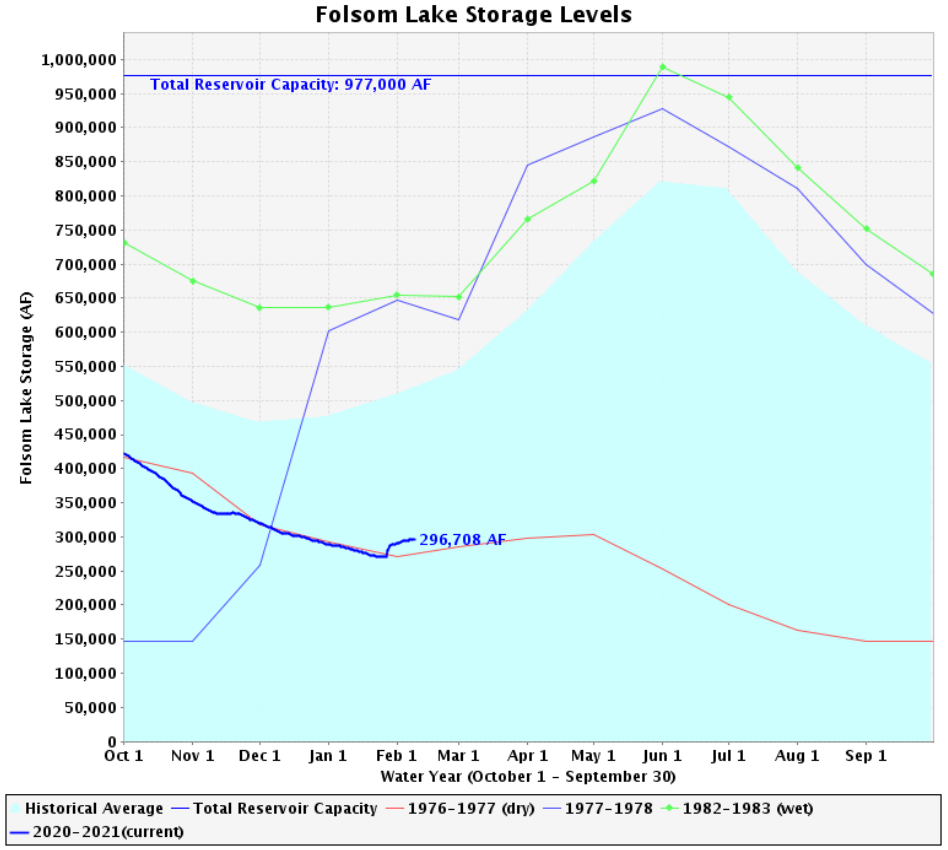
- Locate wells downgradient of high TDS concentrations or in areas where sparse public supply wells
- Prefer wells with pumps – quick and easy to sample
- Use monitoring wells otherwise – cost is higher due to labor time to sample

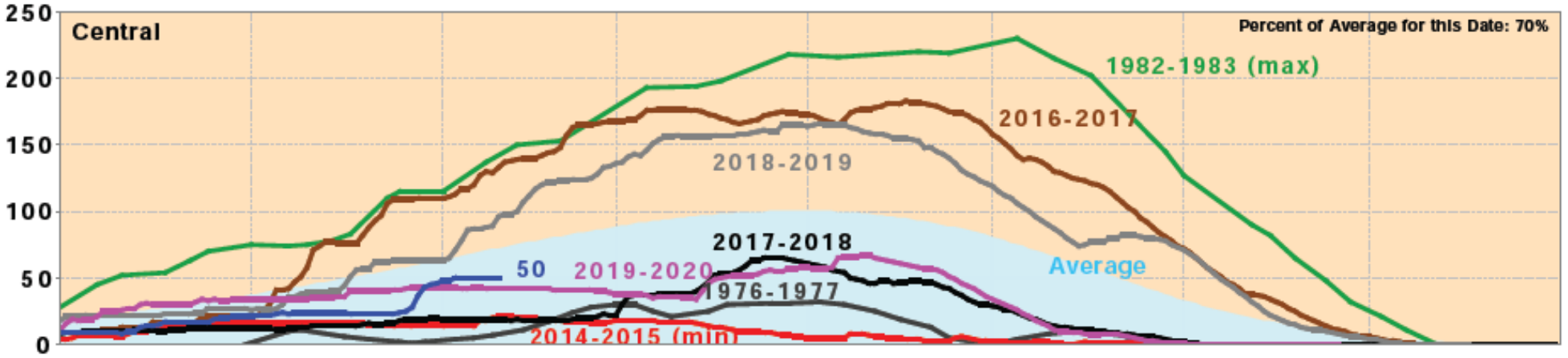
Groundwater Management Program Update

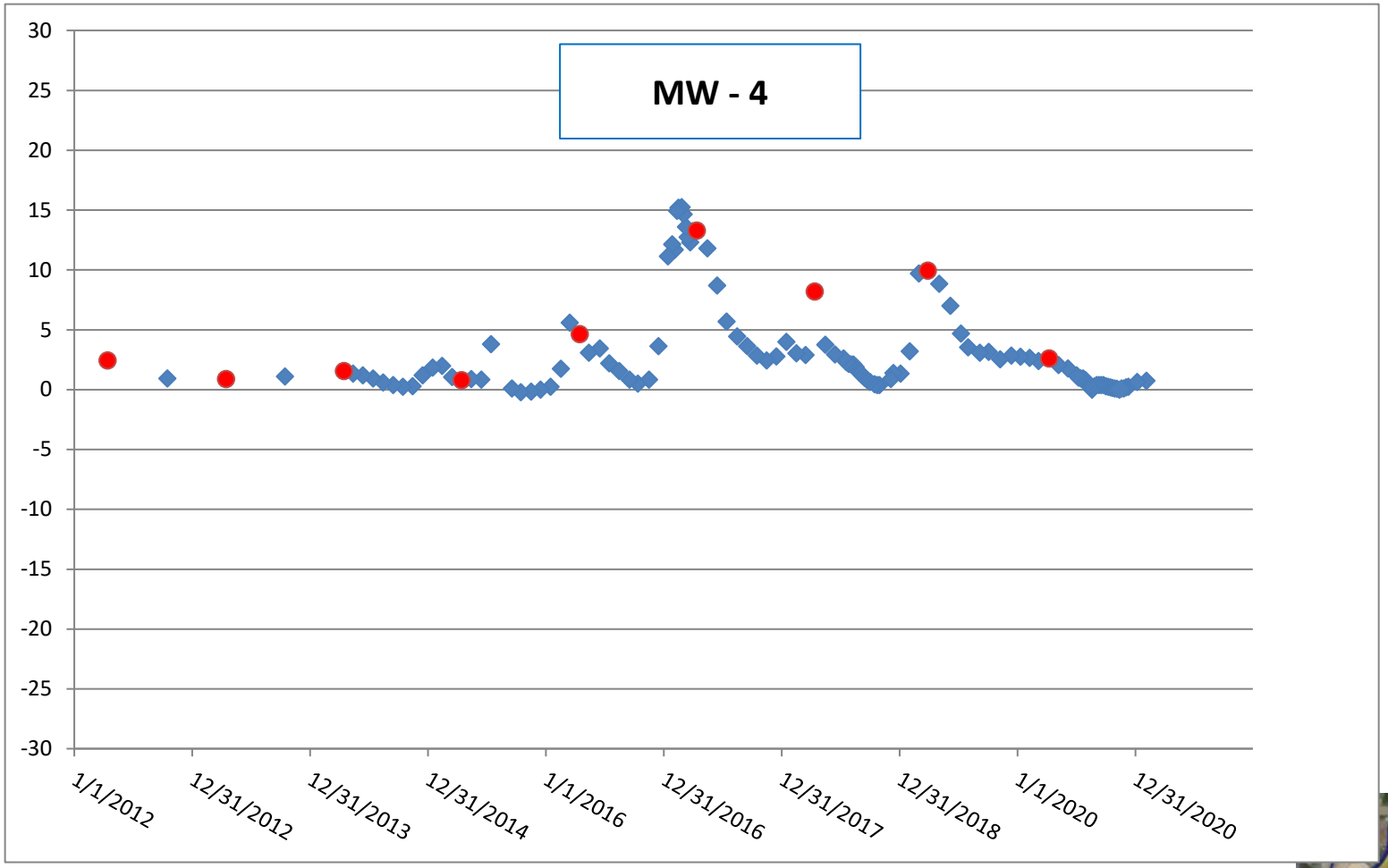
February 11, 2020

SGA

Hydrologic Conditions



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12/31/2012
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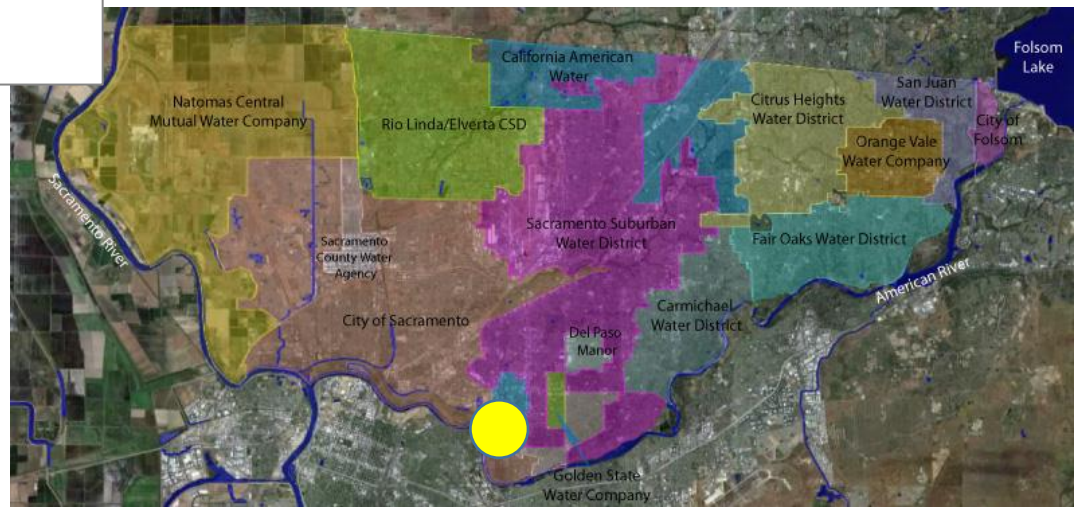
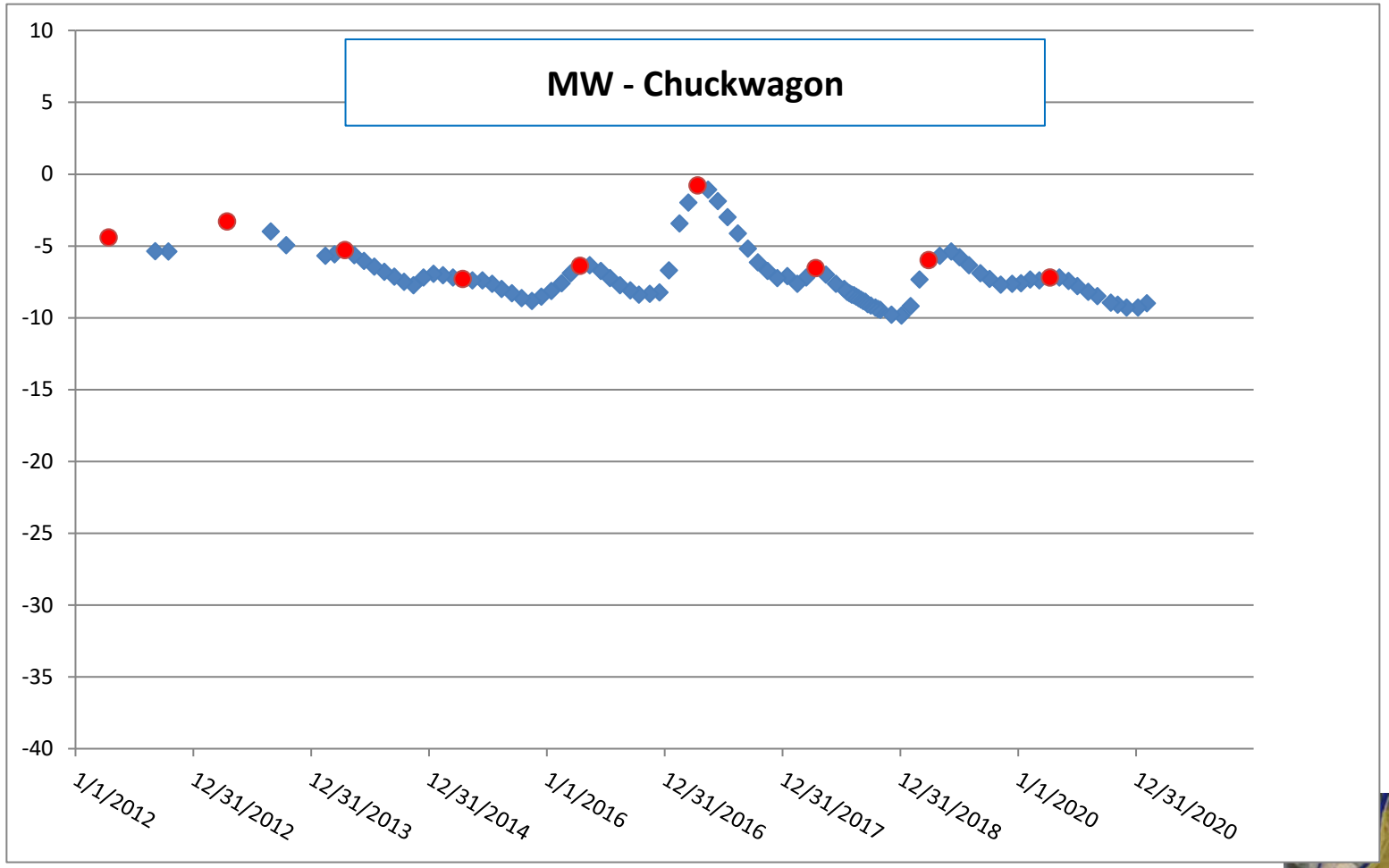

California American Water
Folsom Lake
Natomas Central Mutual Water Company
Rio Linda/Elverta CSD
Citrus Heights Water District
San Juan Water District
City of Folsom
Orange Vale Water Company
Sacramento River
Sacramento Suburban Water District
Fair Oaks Water District
Sacramento County Water Agency
American River
Carmichael Water District
City of Sacramento
Del Paso Manor
Golden State Water Company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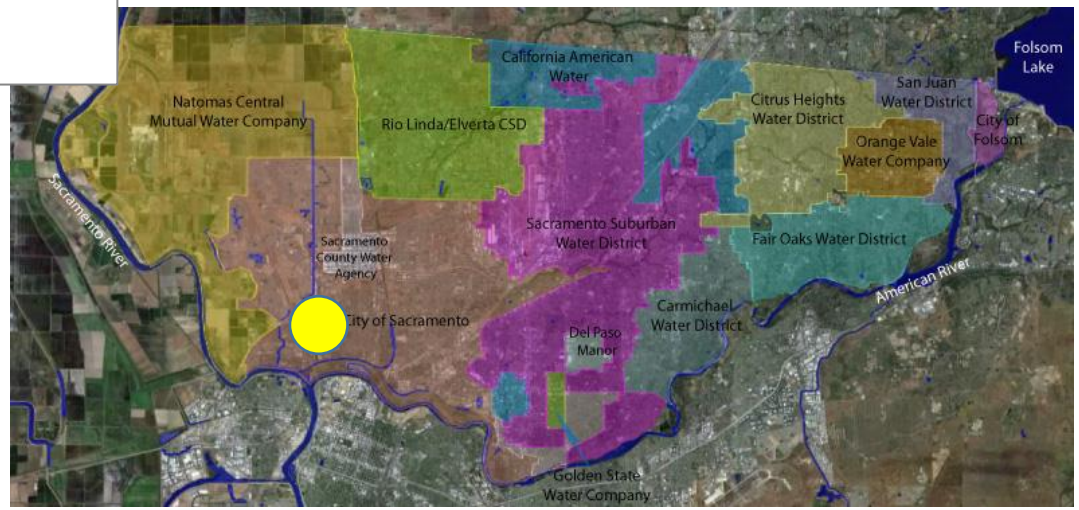
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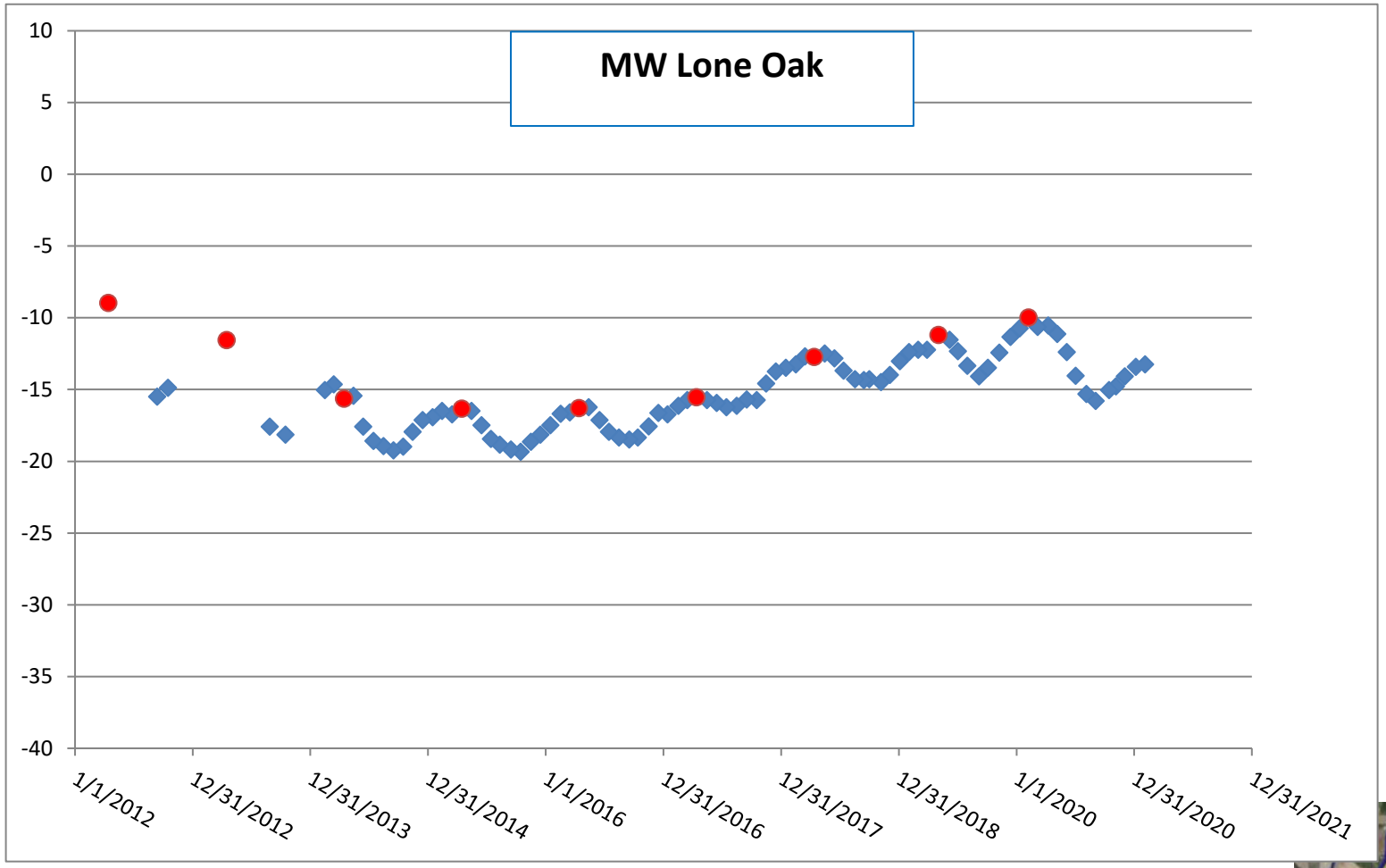
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12/31/2017
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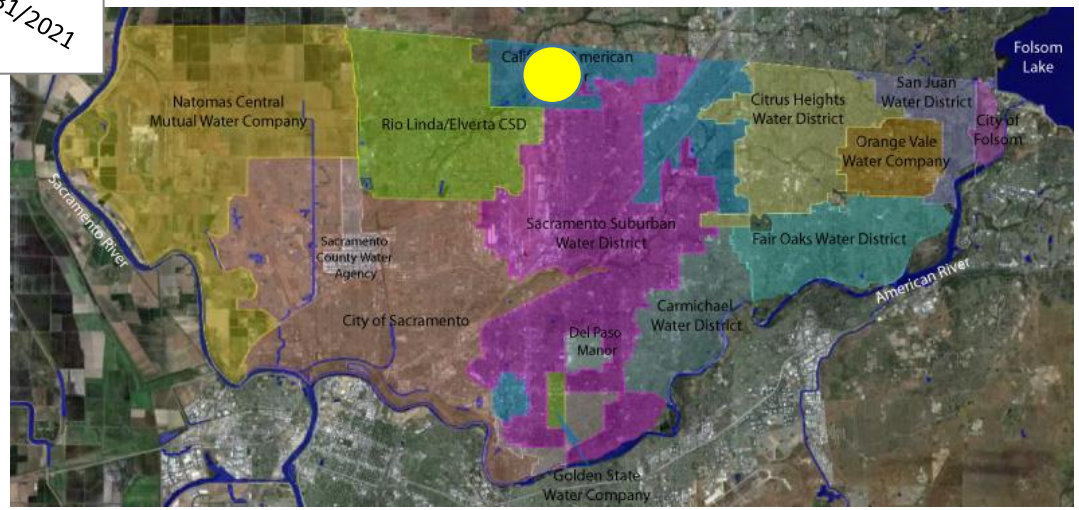
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Water District
San Juan
Water District
Folsom
Lake
City of
Folsom
Orange Vale
Water Company
Sacramento River
Sacramento
County Water
Agency
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City of Sacramento
Carmichael
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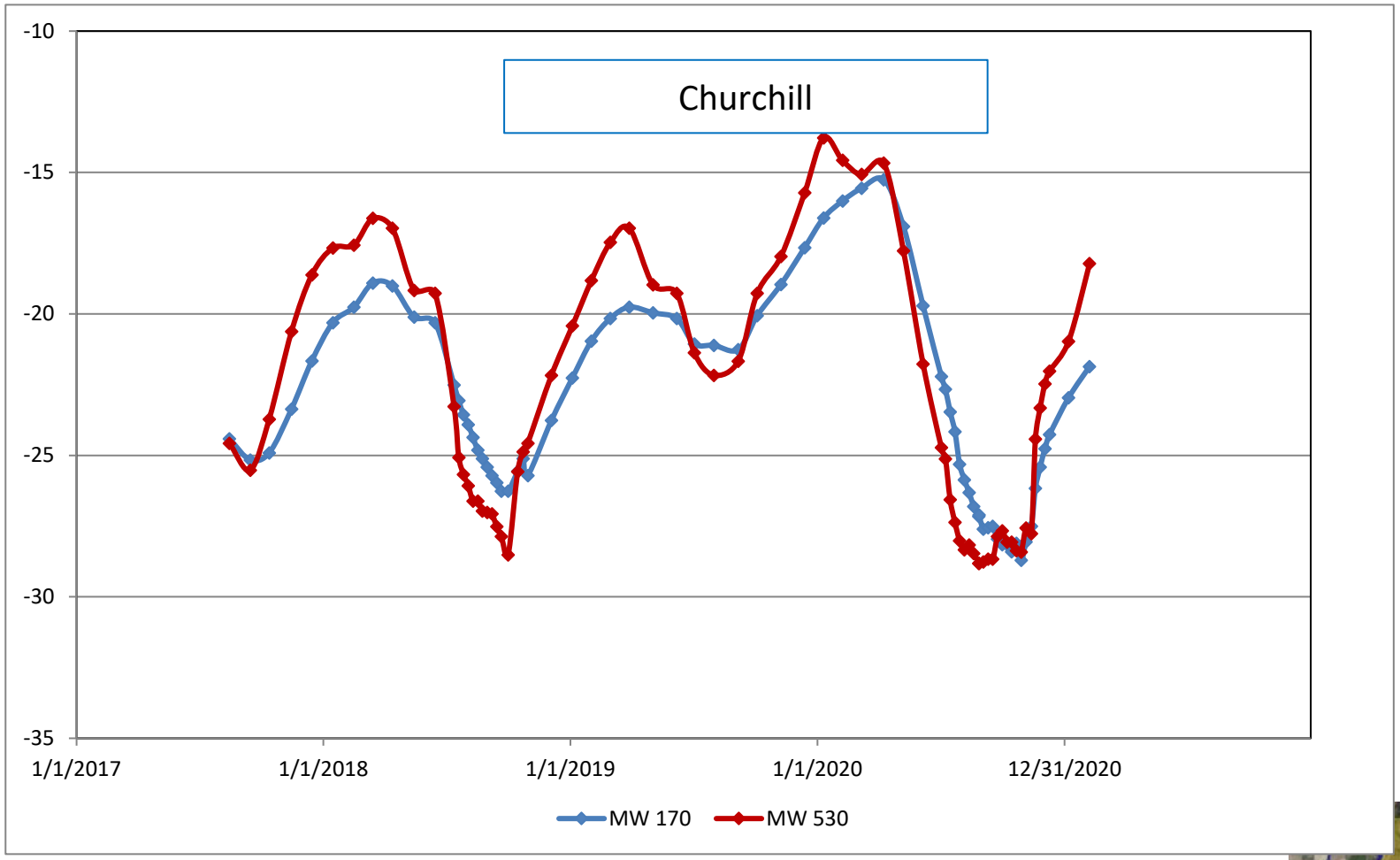
Del Paso
Manor
Golden State
Water Company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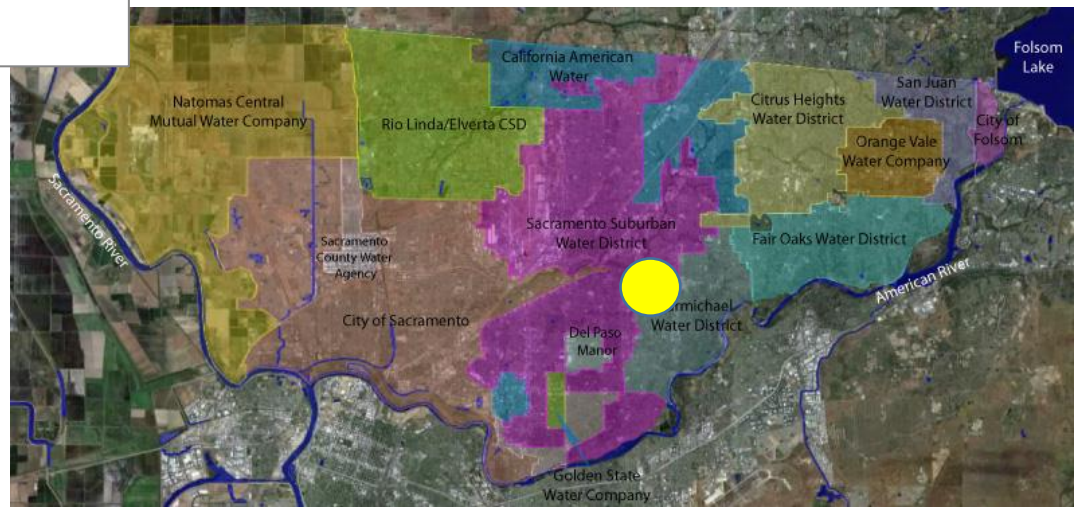
MW 170
MW 530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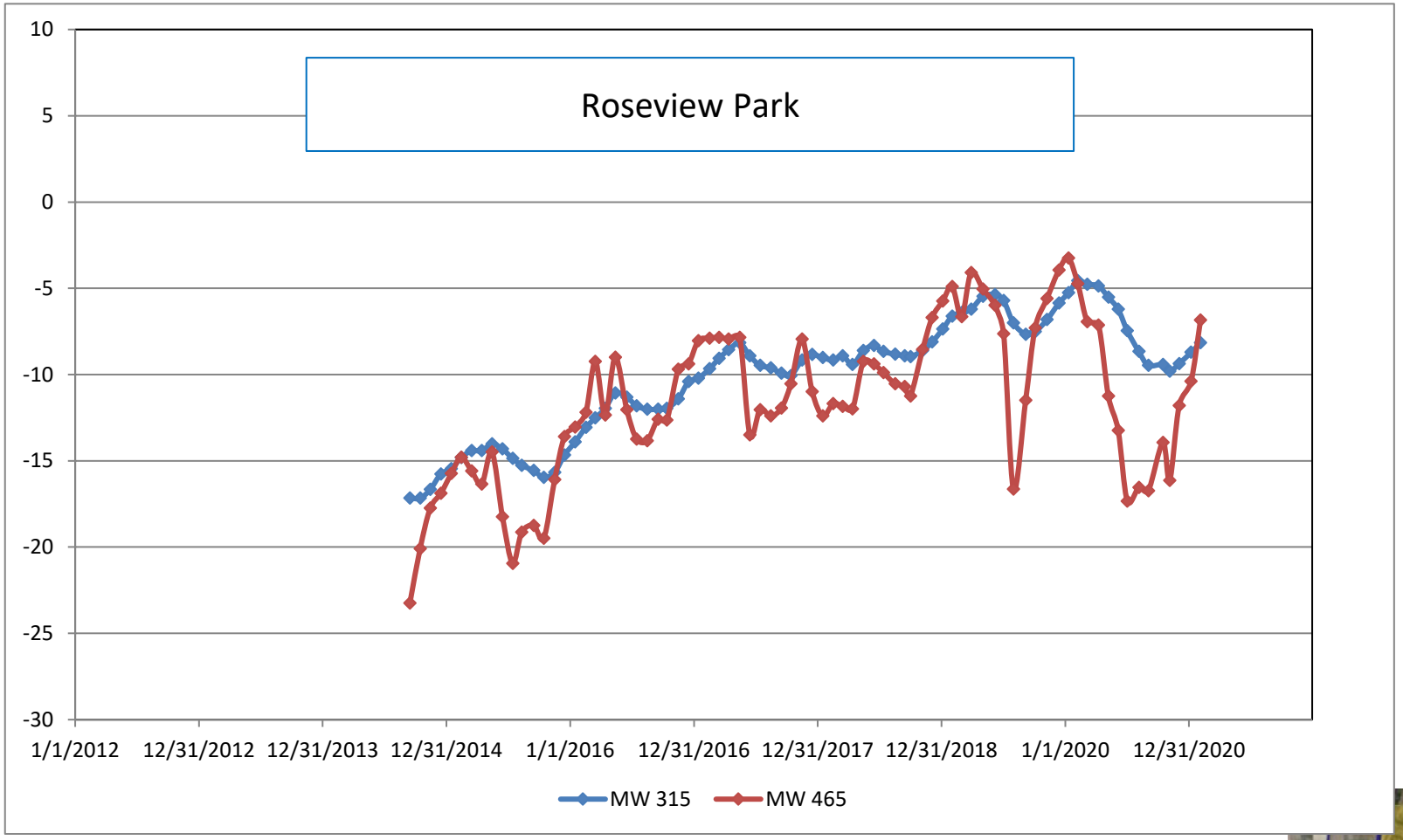
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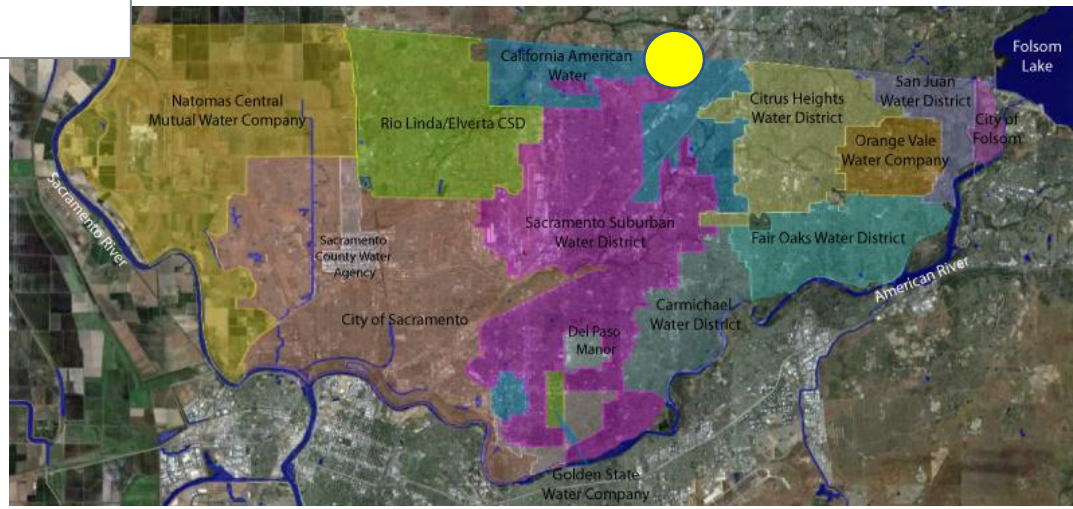
MW 465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