

**Merced GSP Data Gaps Plan Model Re-Run with Updated Data – DRAFT/PRELIMINARY**

September 11, 2023

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The Merced GSP Data Gaps Plan (July 2021, see here [http://www.mercedsgma.org/assets/pdf/reports/Merced-GSP-Data-Gaps-Plan\\_July-2021-NoAppendices.pdf](http://www.mercedsgma.org/assets/pdf/reports/Merced-GSP-Data-Gaps-Plan_July-2021-NoAppendices.pdf)) describes a series of tools to prioritize filling data gaps, particularly in the groundwater level monitoring network for the GSP.

The Data Gaps Plan tools were updated on 9/8/2023 to reflect:

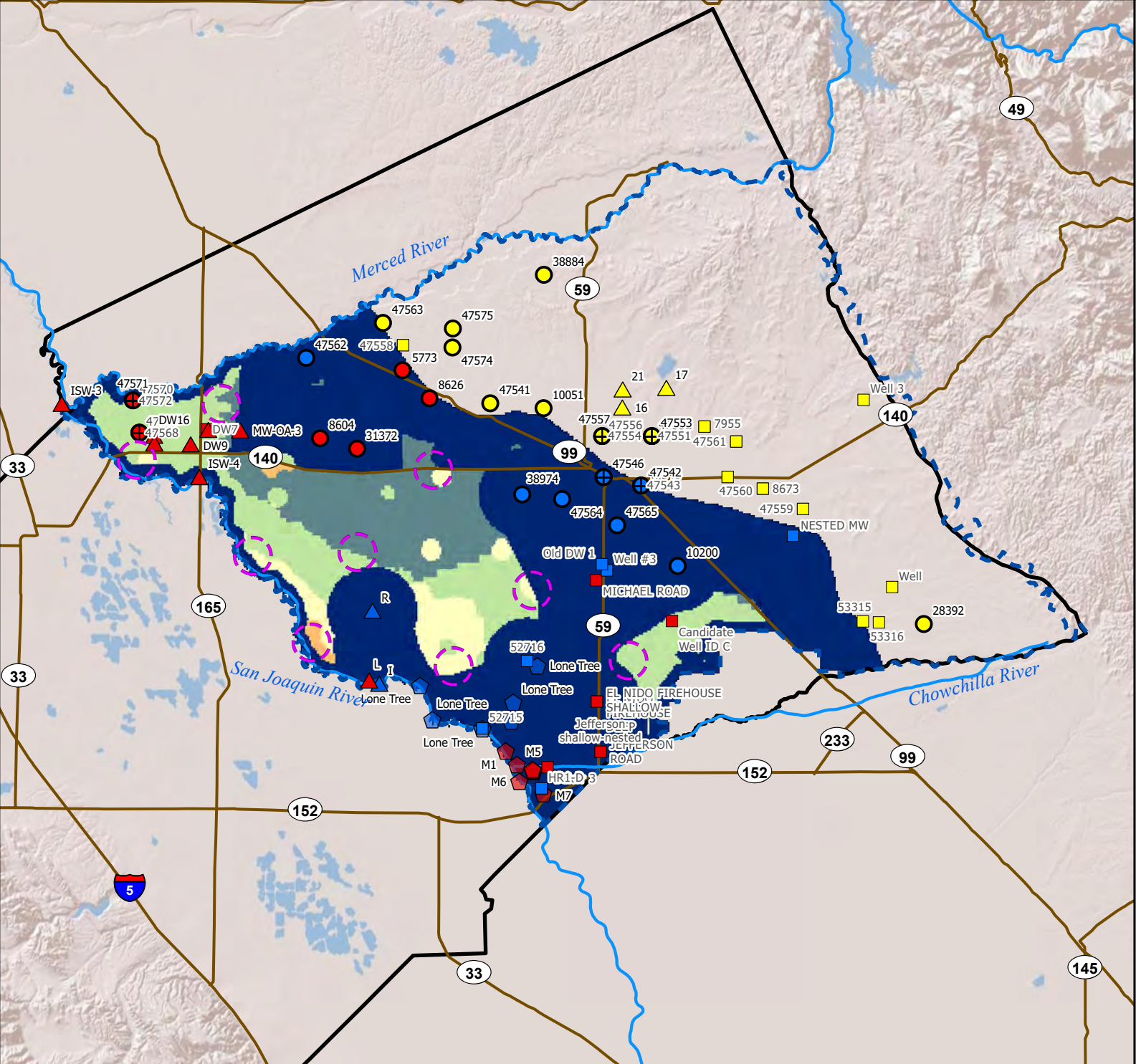
- Several new wells installed or existing wells that have been instrumented by the GSAs in the past several years.
- Some additional existing wells that may be added to the monitoring network.
- Some new wells that are planned for construction and are anticipated to be added to the monitoring network.
- Subsequent update to the number of new monitoring network wells needed for each principal aquifer based on the new wells identified above:
  - Above Corcoran Clay: 8 additional wells
  - Below Corcoran Clay: 9 additional wells
  - Outside Corcoran Clay: 5 additional wells
- Used fall 2022 elevations (updated from fall 2020 elevations) for the kriging prediction error input to the tool. Elevations were estimated for wells without data for fall 2022.

The attached maps show the *draft/preliminary* outputs from the model re-run as of 9/8/2023, broken down by principal aquifer. The well type labels are described below:

- “Representative” or “Additional” – indicates a well that is part of the GSP monitoring network or anticipated to be added in the next year as a result of recent installation or instrumentation
- “Proposed” – wells that have been discussed as being incorporated into the network in the past, but have not yet officially been incorporated to date
  - These wells were considered part of the existing network for purpose of the analysis.
- “Potential” – wells that have been identified as potential additions to the network, but have not been discussed or reviewed in detail (potentially due to limited historical monitoring data, construction information, or information about site access).
  - These wells were not considered part of the existing network for purpose of the analysis, but were part of one of the inputs that weights the probability of inclusion more heavily towards existing wells.
- “Recommended New Monitoring Site” – these represent general recommended locations as an output from the data gaps tool. Recommended sites should be considered with other factors external to the tool (site access, etc.).



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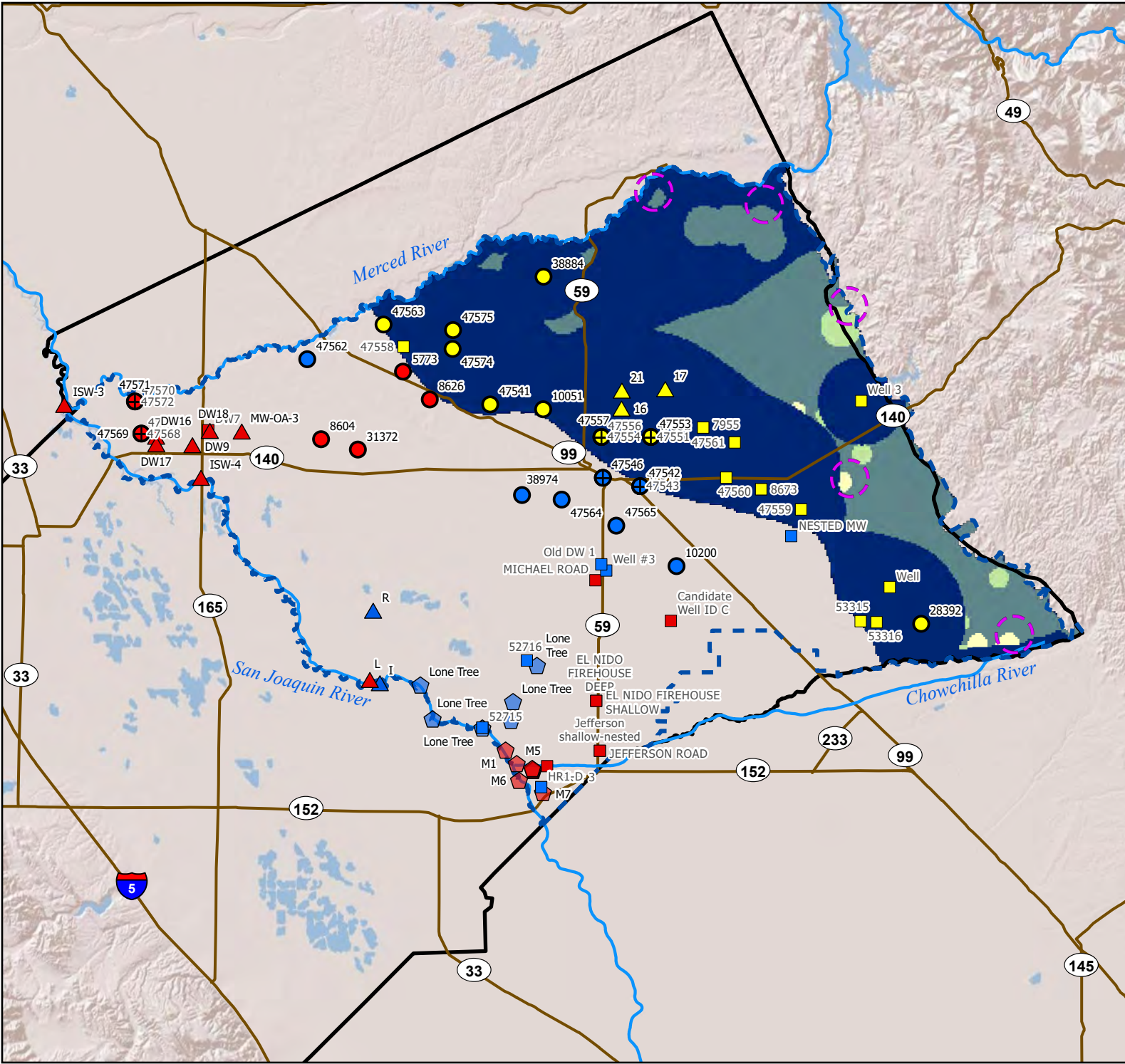
**Merced Subbasin GSP**

- Legend**
- Merced Subbasin Boundary
  - Major Rivers
  - Major Roads
  - ▭ Merced County Boundary
  - ⊕ Multiple Completion Well
- Representative Monitoring Well**
- Above Corcoran Clay
  - Below Corcoran Clay
  - Outside Corcoran Clay
- Additional Monitoring Network Well**
- Above Corcoran Clay
  - Below Corcoran Clay
  - Outside Corcoran Clay
- Proposed Additional Wells**
- ▲ Above
  - ▲ Below
  - ▲ Outside
- Potential Additional Wells**
- ◆ Above
  - ◆ Below
  - Recommended New Monitoring Sites (Below CC)
- Probability of Inclusion (Below CC)**
- 0 - 0.1
  - 0.1 - 0.2
  - 0.2 - 0.3
  - 0.3 - 0.4
  - 0.4 - 0.5
  - 0.5 - 0.6
  - 0.6 - 0.7



Project #: 0011036.01  
 Map Created: September 2023  
 Data Sources: DWR groundwater subbasins, CASGEM well locations

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### Merced Subbasin GSP

#### Legend

- Merced Subbasin Boundary
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- ⊕ Multiple Completion Well
- Representative Monitoring Well**
- Above Corcoran Clay
- Below Corcoran Clay
- Outside Corcoran Clay
- Additional Monitoring Network Well**
- Above Corcoran Clay
- Below Corcoran Clay
- Outside Corcoran Clay
- Proposed Additional Wells**
- ▲ Above
- ▲ Below
- ▲ Outside
- Potential Additional Wells**
- ◊ Above
- ◊ Below
- Recommended New Monitoring Sites (Outside CC)
- Probability of Inclusion (Outside CC)**
- 0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- 0.5 - 0.6
- 0.6 - 0.7

0 1.75 3.5 7 Miles



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