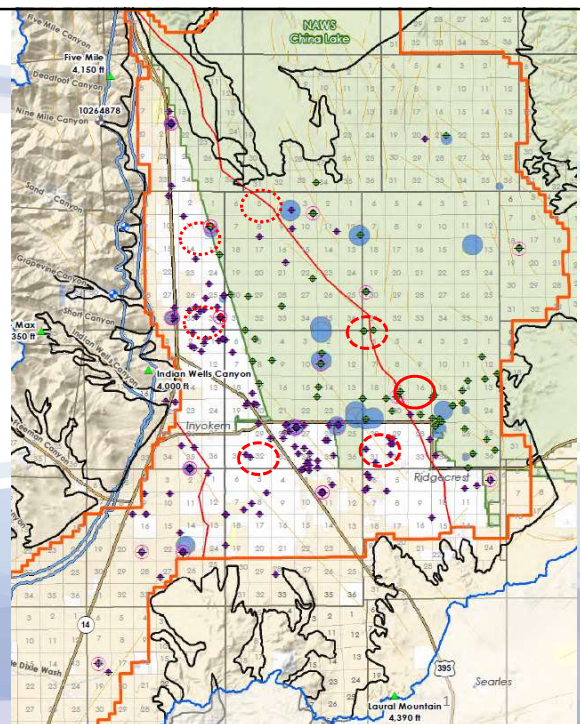


## Aquifer Testing / Hydraulic Properties

- Coordination with SeaBees / Navy
  - August 2019 Aquifer Test at SeaBee Wells
  - Fault Definition Aquifer Test
  - Well Pairs
- Coordinate w/ TAC Members
  - E. Teasdale (Meadowbrook Dairy)
  - W. Major (Mohave Pistachio)
  - T. Parker (IWWVD)
  - D. Quist (Small Ag)



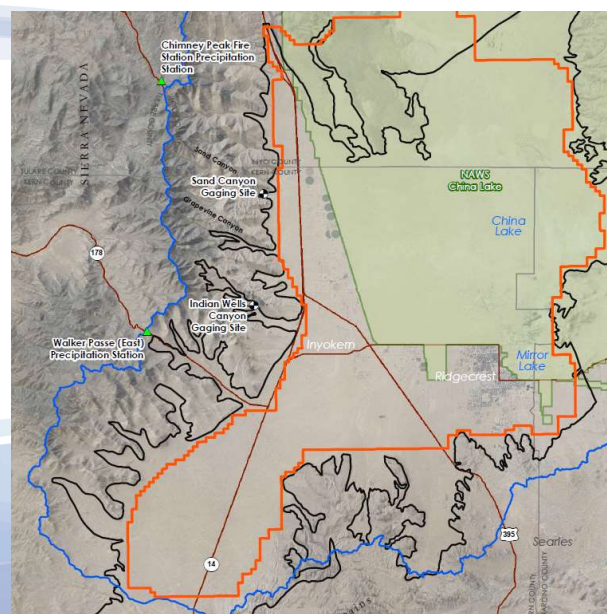
## Stream Gages / Weather Stations

Retrofit Sand Canyon Gaging Site  
Retrofit Walker Passe (east) Precipitation Station

- Planning August Installation
- Access/Permit Discussions with BLM staff
- Setup Dataloggers in Monitoring Wells at Recharge Areas

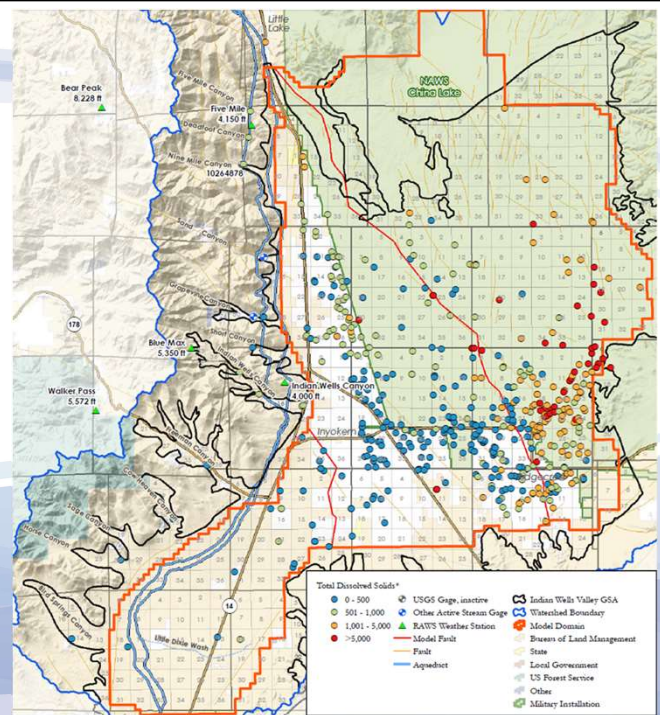
New Chimney Peak Fire Station Precipitation Station

- Planning October Installation
- Access/Permit Coordination with Bakersfield BLM staff



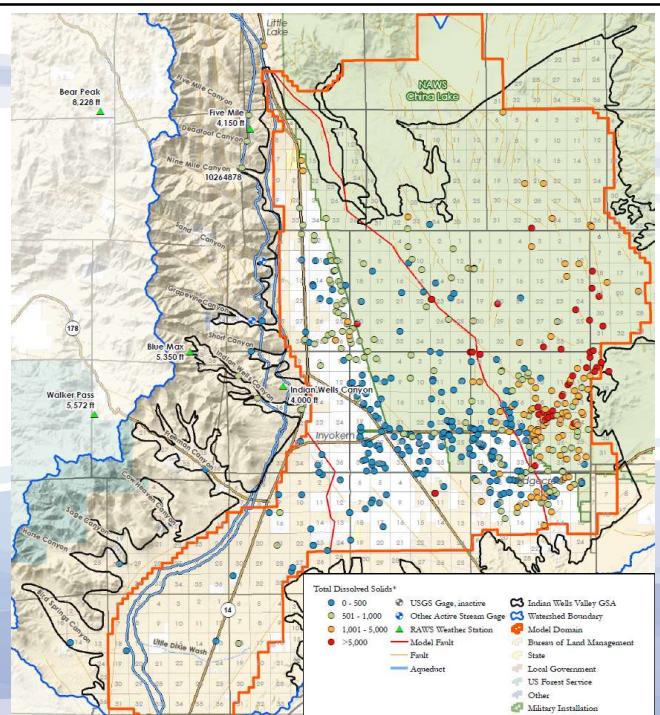
## TDS Database

- ❖ 2,044 TDS Groundwater Samples
  - 1920 to 2019
  - 564 wells
  - Includes DWR's GAMA data (*Groundwater Ambient Monitoring and Assessment Program*)
- ❖ Prop 1 Funding
  - Develop TDS Baseline for GSP
  - Sample TDS and General Chemistry
  - Determine Future TDS Sampling to Support Basin Management



## Recent TDS Database Updates

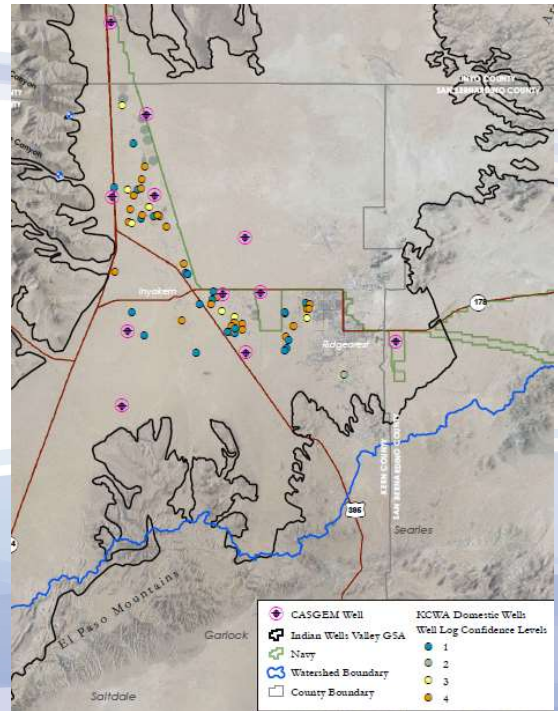
- ❖ Database updated 4 times since January 2019 (Model values)
- ❖ February 2019
  - 6 new entries added from Warner, 1975
  - 55 samples previously attributed to other sources were sourced to Warner, 1975
- ❖ March 2019
  - 29 new entries added from Navy data
  - 242 samples previously attributed to 'GAMA' were updated to 'GAMA-Navy'
  - 1 duplicate entry removed
- ❖ May 2019
  - 1 new entry added from WQ data provided by a domestic well owner
- ❖ June 2019
  - 3 new entries added from GAMA data for municipal wells





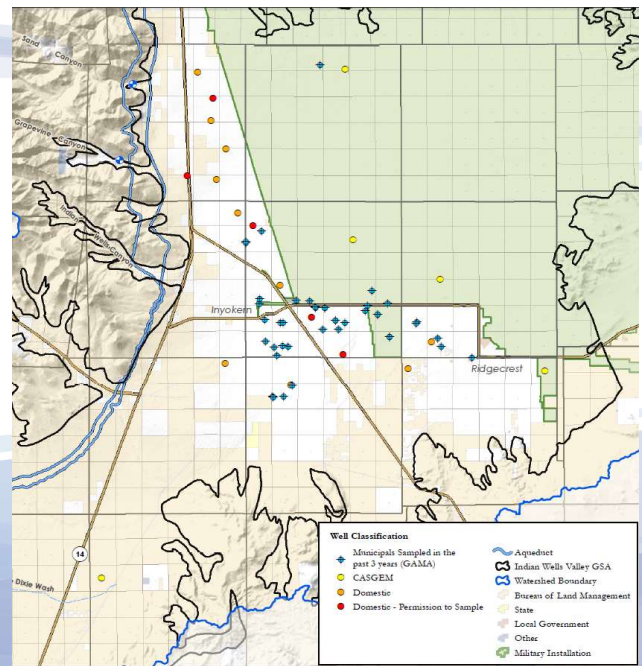
## Proposed TDS Sampling Plan

- ❖ Prop 1 Funding for TDS and General Chemistry Sampling
- ❖ 15 Wells chosen from 60 KCWA Domestic Wells
  - First variable – previous TDS sample
  - Second variable – well log
  - Accessibility
- ❖ 5 Wells chosen from 17 CASGEM Wells for Purging / Sampling
  - First variable – well diameter
  - Second variable – well depth
  - Accessibility



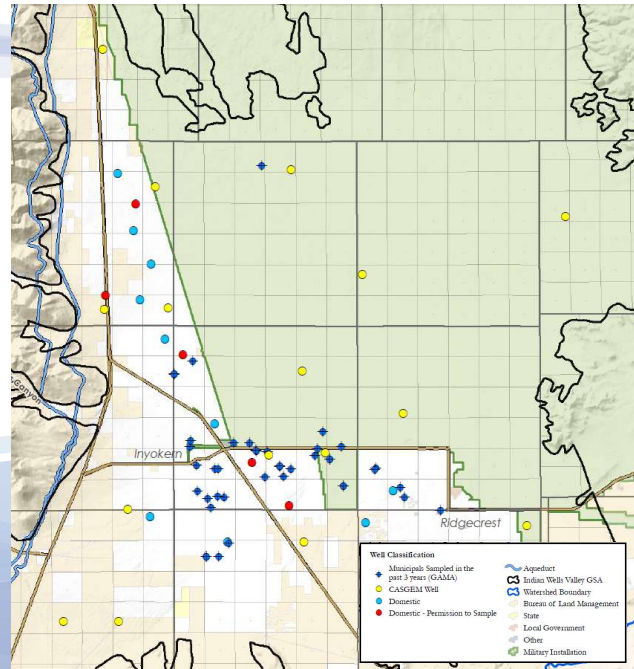
## Proposed TDS Sampling Plan

- ❖ GAMA Municipal Wells
  - 39 Wells sampled in past 3 years
- ❖ KCWA Domestic Well Sampling (5 to 15)
  - 5 Domestic Well Owners agreed to water quality sampling
  - 10 Proposed Domestic Wells – working to get permission to sample
- ❖ CASGEM Well Sampling
  - 5 Purging/Sampling with Pump Contractor
  - Other Wells Sampled with HydraSleeves



## Sampling Logistics

- ❖ Domestic Well Sampling
  - Reach out to well owners; schedule
  - Owners pump well
  - We collect sample
  - Laboratory analysis for TDS / General Chemistry
  - Owner is provided with results
- ❖ CASGEM Well Sampling
  - Pump Contractor – purge 5 wells until formation groundwater & sample
  - HydraSleeve sampling at other locations
  - Laboratory analysis for TDS / General Chemistry
  - Compare results at 5 wells

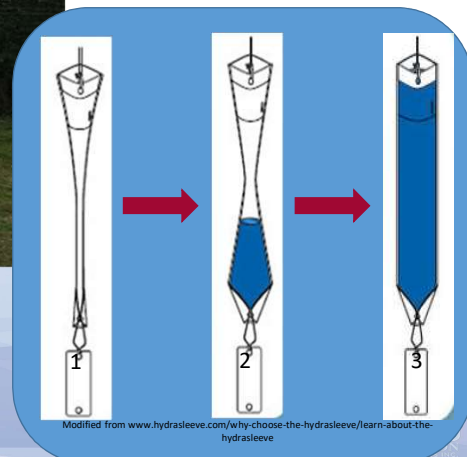


## HydraSleeve Sampling

- ❖ HydraSleeve Sampling
  - No-purge
  - Undisturbed formation groundwater
  - DWR approved methodology
  - Repeatability
  - Cost Savings

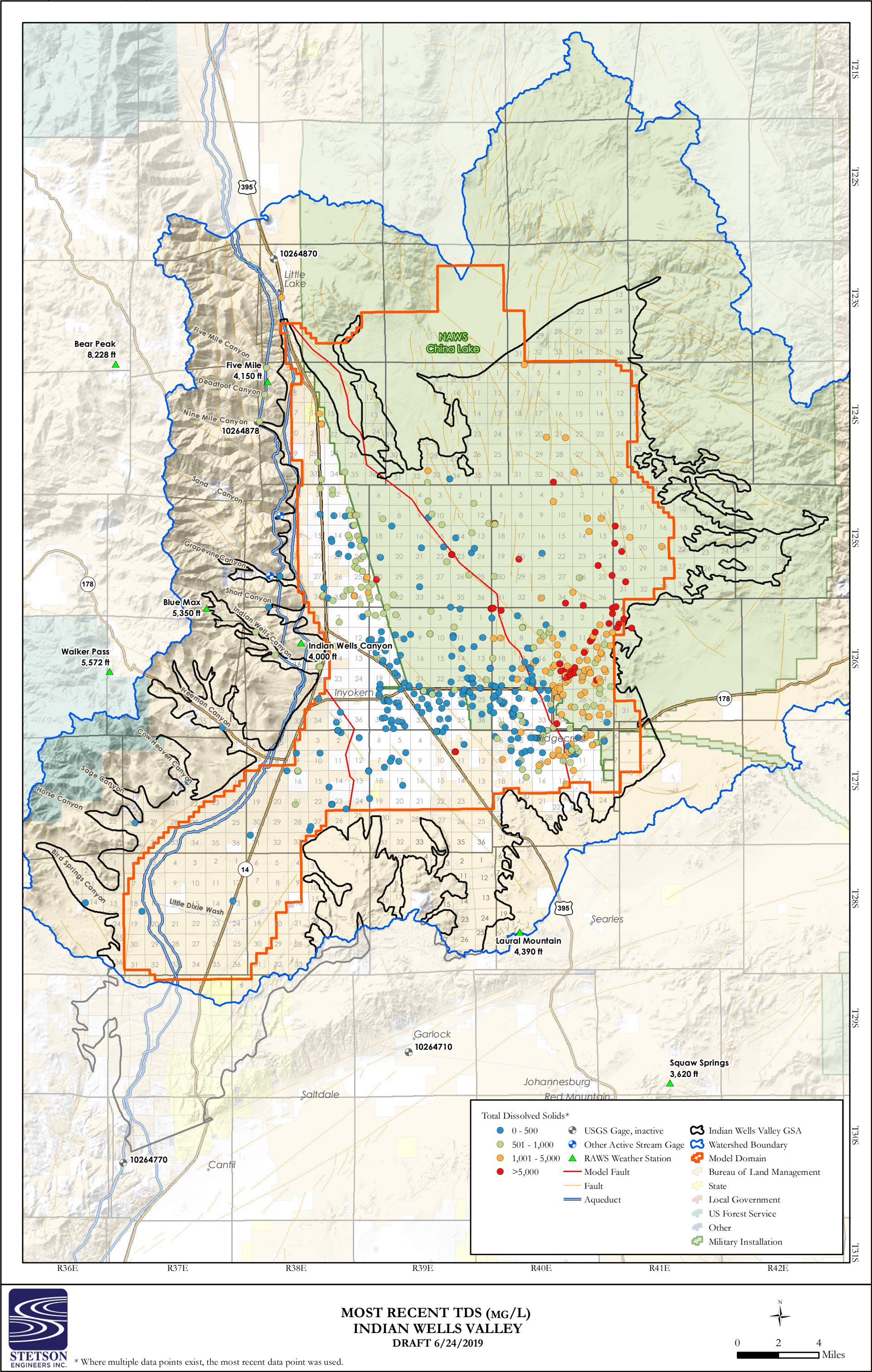


[www.hydrasleeve.com](http://www.hydrasleeve.com)



Modified from [www.hydrasleeve.com/why-choose-the-hydrasleeve/learn-about-the-hydrasleeve](http://www.hydrasleeve.com/why-choose-the-hydrasleeve/learn-about-the-hydrasleeve)

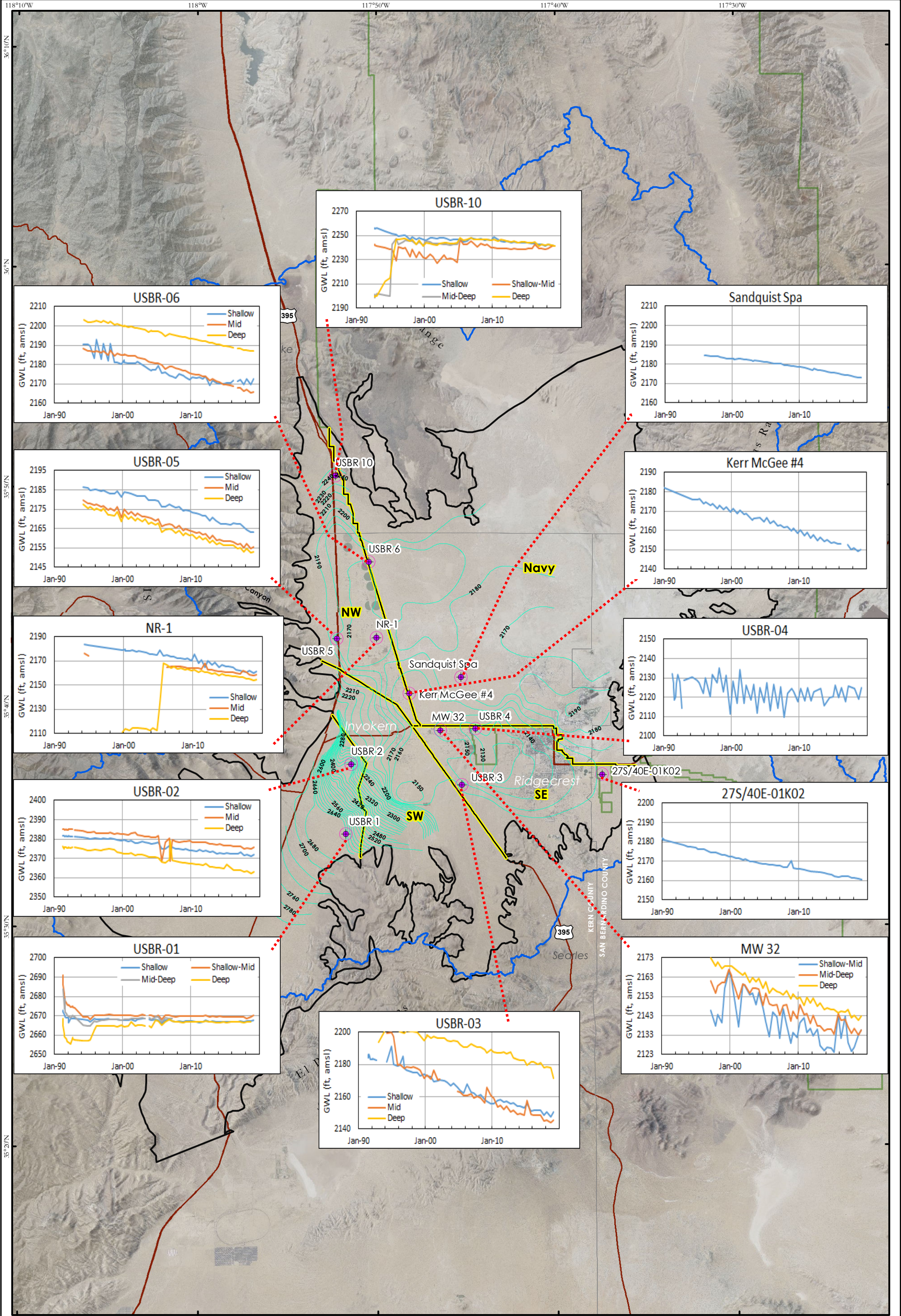




\* Where multiple data points exist, the most recent data point was used.

FIGURE 3-12





DRAFT

CASGEM MONITORING WELLS  
INDIAN WELLS VALLEY

0 2.5 5 Miles



- CASGEM Well
- Management Area Boundary
- Digitized spring 2015 GWL
- Indian Wells Valley GSA
- Watershed Boundary
- Navy
- County Boundary



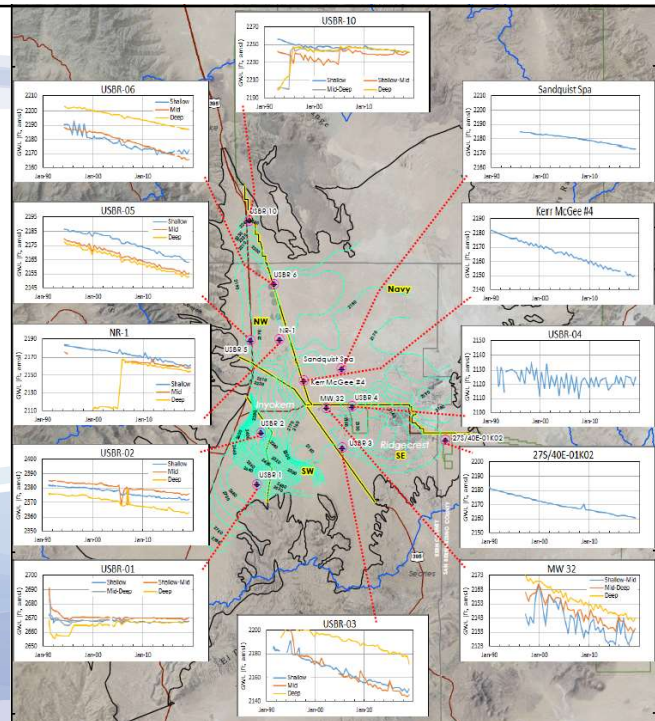
## Monitoring Network *(cont. from 5/2 TAC)*

- GSP Network comprised of CASGEM Wells
- Minimum of one to two “key well” representative site per modeling zone area
- Considerations for Establishing Sustainable Management Criteria for Groundwater Levels
  - Natural Recharge
  - Induced Recharge
  - Recharge Areas
  - Pumping Depressions
  - Flow Barriers
  - Groundwater Dependent Ecosystems

D. Decker comments to May 2, 2019 TAC Presentation:

- add NACC-17 for T26S R39E 17 (perf 661-881: TDS 173 mg/L 1983)
- add discharge zone (working with Navy for “nested” wells available near China Lake Playa)

Demonstration using Database Management System (DMS)



## Data Management System (DMS)

### Updates to IWVGSP.com website

- Streamflow Data
  - Updated through Spring 2019
- Groundwater Level Data:
  - Updated through Spring 2019
  - Historical USGS data included prior to KCWA/Navy Program
  - New wells included
  - Depth to Water right axis added to graphs
- General:
  - New IWV GA logo
  - Improved loading time and browser cache handling
  - Graphing updated (JavaScript libraries)
  - Support for Microsoft Edge “pin to” features

