

GROUNDWATER AMBIENT MONITORING AND ASSESSMENT
(GAMA) PROGRAM

NEEDS ANALYSIS PRESENTATION

GAMA PROGRAM PROJECTS
AND STUDIES REGARDING DOMESTIC WELL USERS IN CALIFORNIA

PRESENTATION OUTLINE



Part 1

GAMA Program
Shallow Aquifer
Assessment and
GAMA Studies
(USGS)



Part 2

Identifying the
Location and
Population Served
by Domestic Wells
in California
(USGS)



Part 3

Well Completion
Report Digitization
(USGS)



Part 4

GAMA
Program:
Well Owner
Outreach
(State Board)



Part 5

GAMA
Program
Project Data
& Data Tools
(State Board)



Part 4

GAMA Program: Well Owner Outreach

HOW DOES THE GAMA PROGRAM OUTREACH TO WELL OWNERS?

Well Owner Participation

- Locate well owners for the Shallow Aquifer Assessments
- Advocate knowledge of personal well water quality
- On-Site Outreach While Sampling
- Follow-Up Communication and Trends Sampling

Well Owner's Data & Groundwater Education

- We Provide:
 - Water Quality Results
 - Drinking-Water Quality Awareness
 - Local Groundwater Quality Issues

Online Data Tools and Data Availability

- Locate Impacted Wells Nearby
- Groundwater Quality Information System Queries & Downloads
- Understand Groundwater Quality Issues

GAMA Program Website

waterboards.ca.gov/gama



[Home](#) | [Water Issues](#) | [Programs](#) | [Gama](#) | [Well Owners](#)

GAMA - Well Owners - Water Quality in Private Domestic Wells

Quick Links

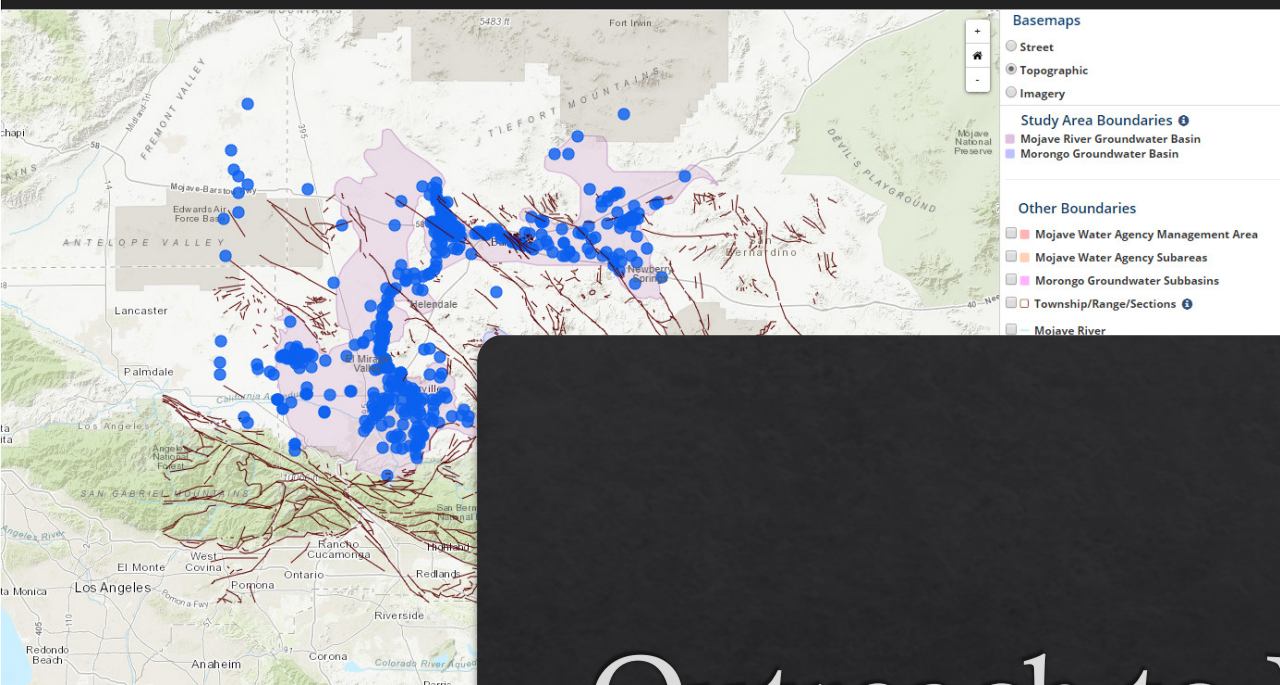
[News!](#) | [About](#) | [Projects](#) | [GeoTracker](#) | [Fact Sheets](#) | [Publications](#) | [Resources](#) | [Well Owners](#) | [FAQs](#) | [Contacts](#)

Domestic well water is typically used by single family homeowners for private use and consumption. It is the responsibility of the well owner to ensure that their domestic well water is safe, since the State of California does not regulate domestic well water quality.

You may have concerns about the water from your domestic well. The information provided on this topic is divided into the following areas to help you find important information about domestic wells:

Information and resources:

- Domestic well owners
- Program framework
- Program data
- Data tools
- Publications



GAMA-PBP Domestic Groundwater Well Sampling (Northern Sacramento Valley)

Well Owners Needed!

Can your well help with this study? We need to sample one well per rectangular area (cell) on the map.

To locate your address or well, enter your address in the box at the top of the map.

EXPLANATION

- Study Unit Boundary

Outreach to Well Owners

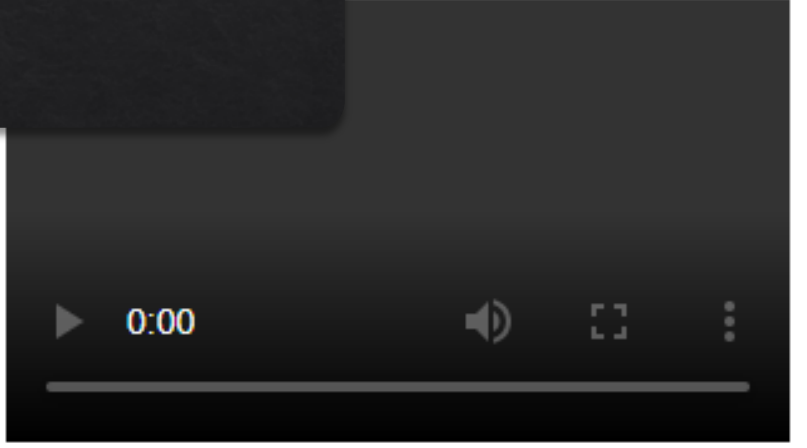
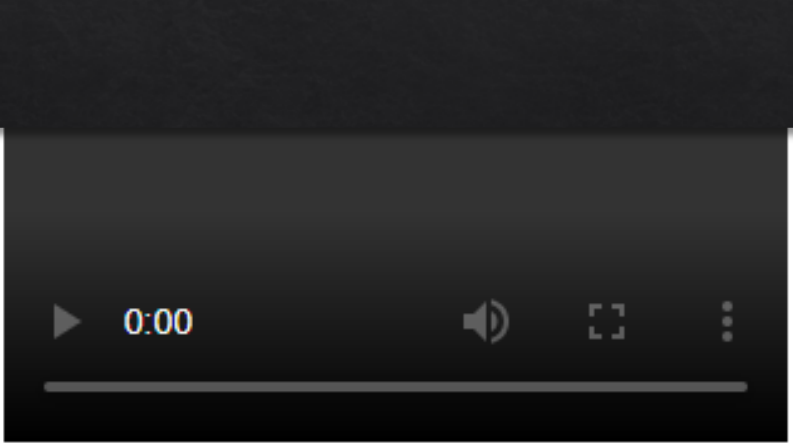
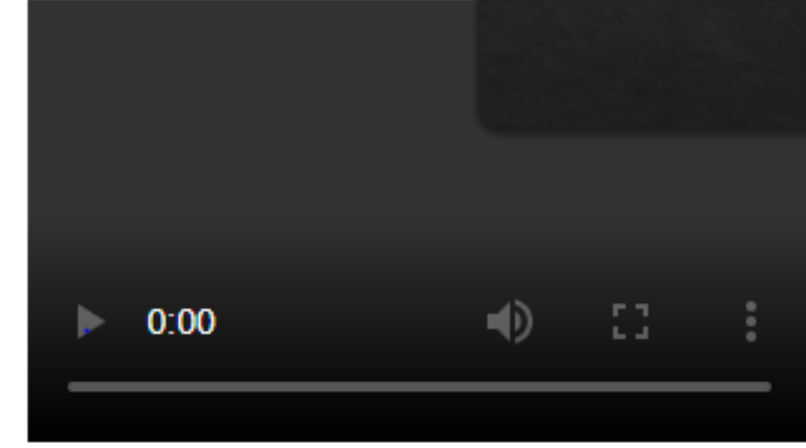
USGS GAMA website for seeking well owner participation

water flow. can the

If your well can be used in the

Introduction

to conduct sampling.

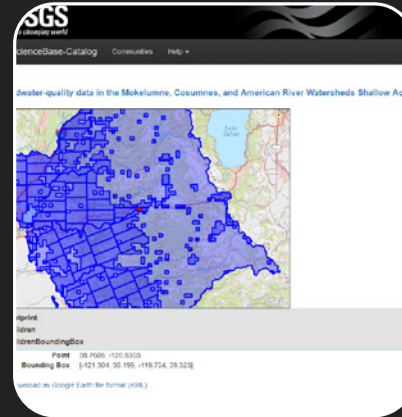
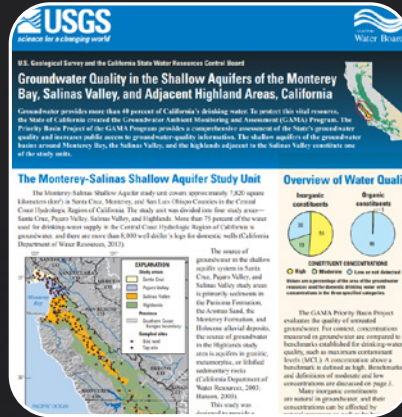
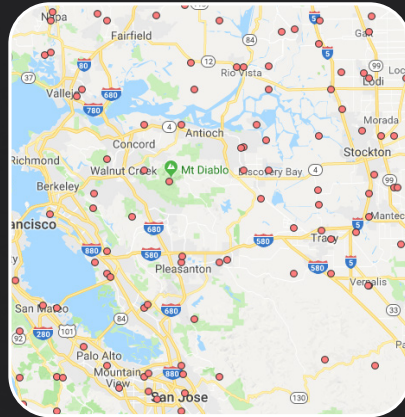




Part 5

GAMA Project Data/Data Tools

PRIORITY BASIN PROJECT DATA

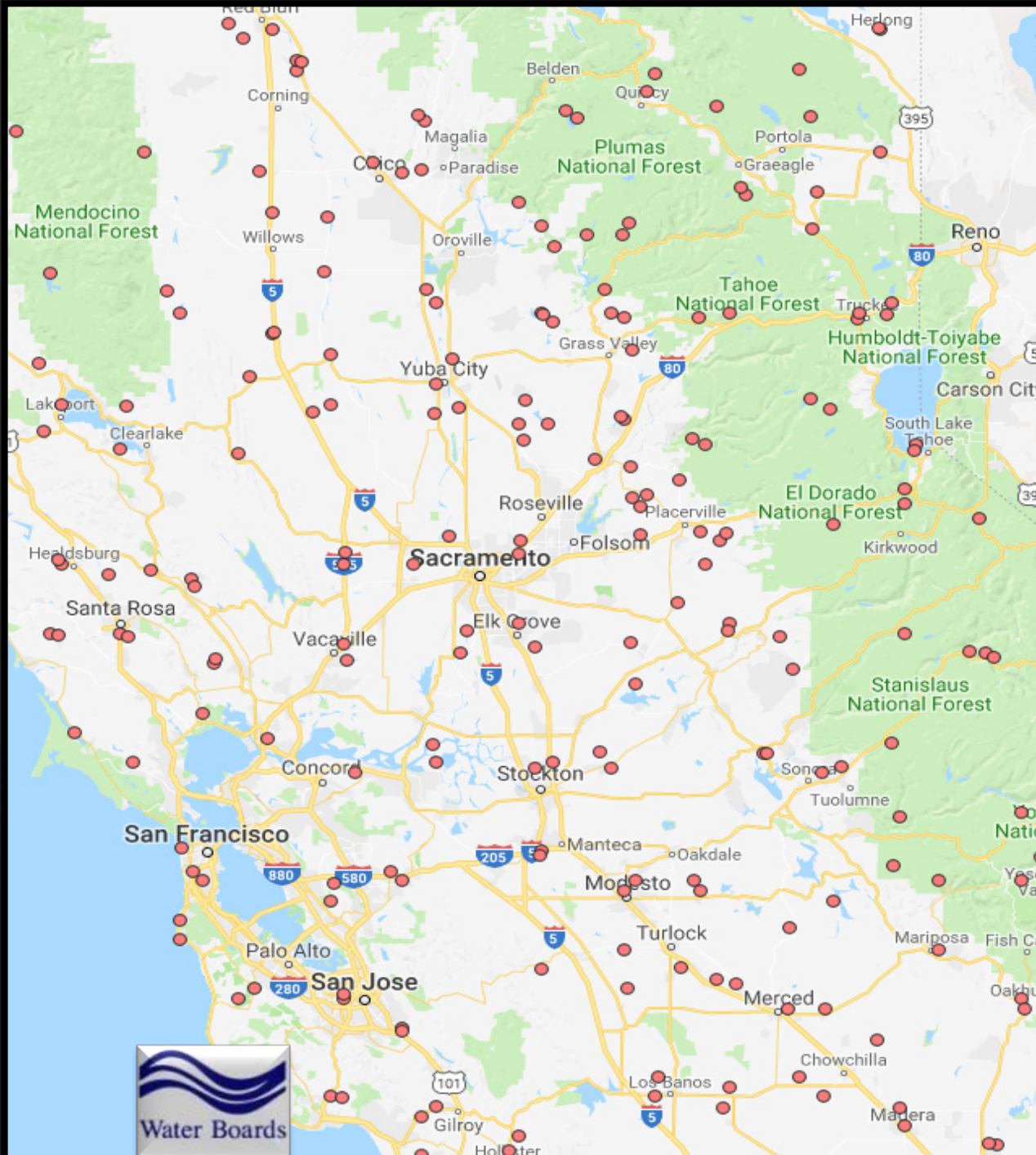


Data
(including
well screens)
uploaded to
GAMA
Groundwater
Quality
Information
System

Publication of
over 100
documents
including
investigation
reports, data
series reports,
fact sheets,
and scientific
papers

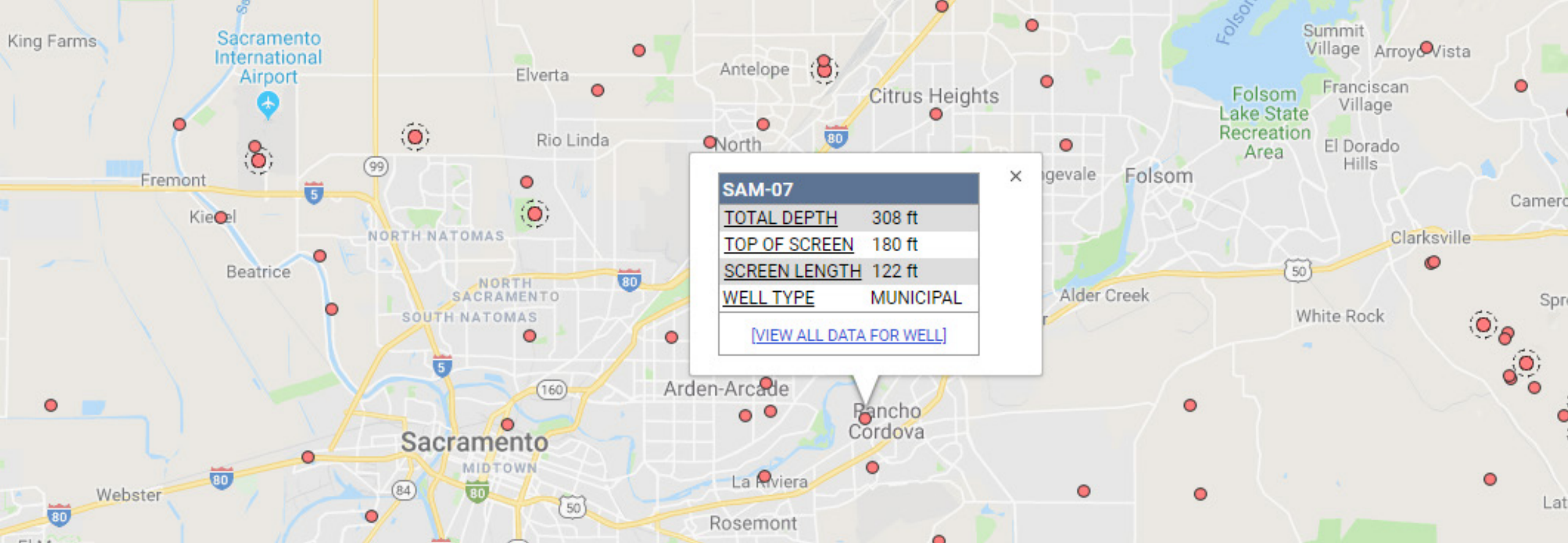
New USGS Data Release Format

- Electronic,
about 6 months
after sampling
- Data
downloads,
with GIS point
and polygon
data



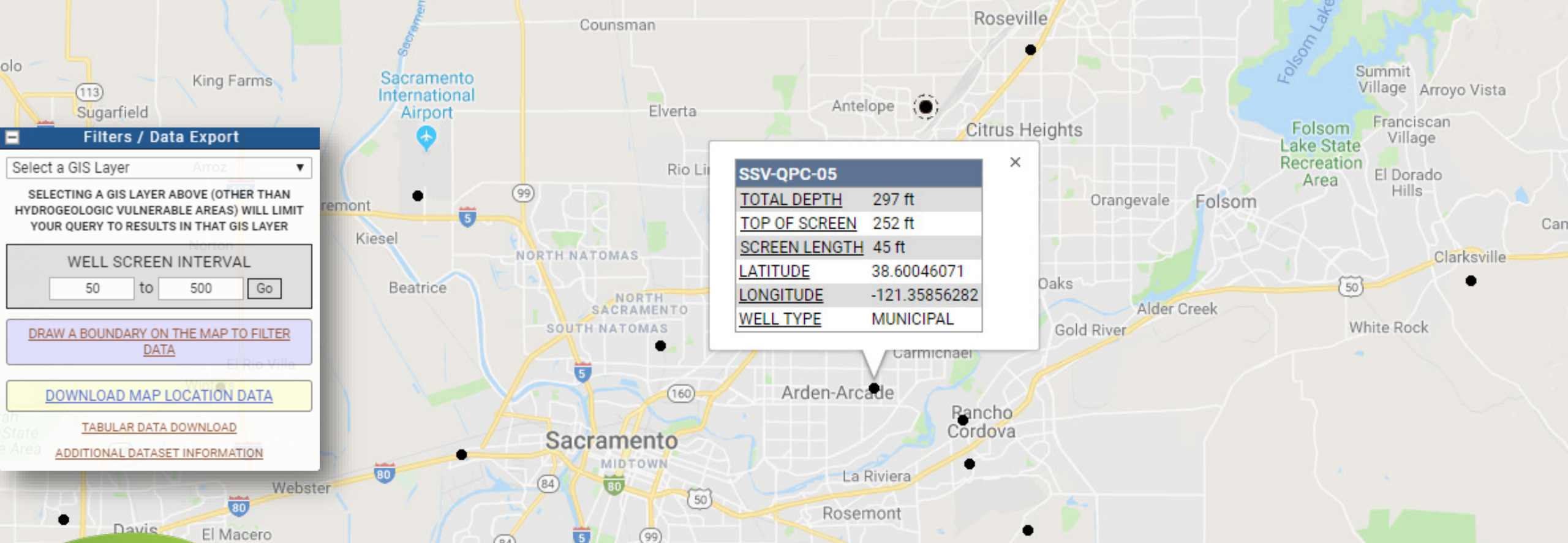
GAMA GROUNDWATER QUALITY INFORMATION SYSTEM

- Integrates and displays water quality data on a Google-based map
- Offers more than 83 million analytical records from over 286,000 wells
- Provides analytical tools and reporting features
- Interactive queries



GAMA GROUNDWATER QUALITY INFORMATION SYSTEM

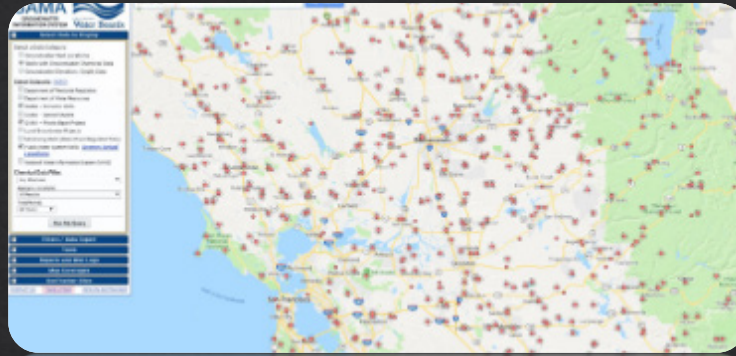
DEPTH DATA



GAMA GROUNDWATER QUALITY INFORMATION SYSTEM DEPTH FILTER

GAMA ONLINE TOOLS

1. GAMA Groundwater Quality Information System
2. GAMA Program Publications and Project Information
3. Groundwater Vulnerability Using Relative Groundwater Age
4. U.S. Geological Survey Groundwater Quality Mapping Tool



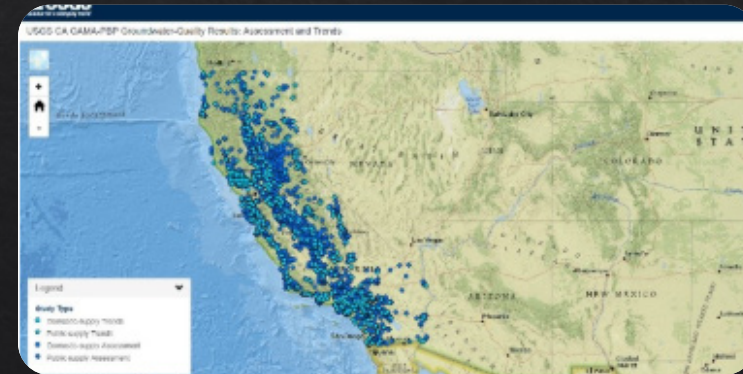
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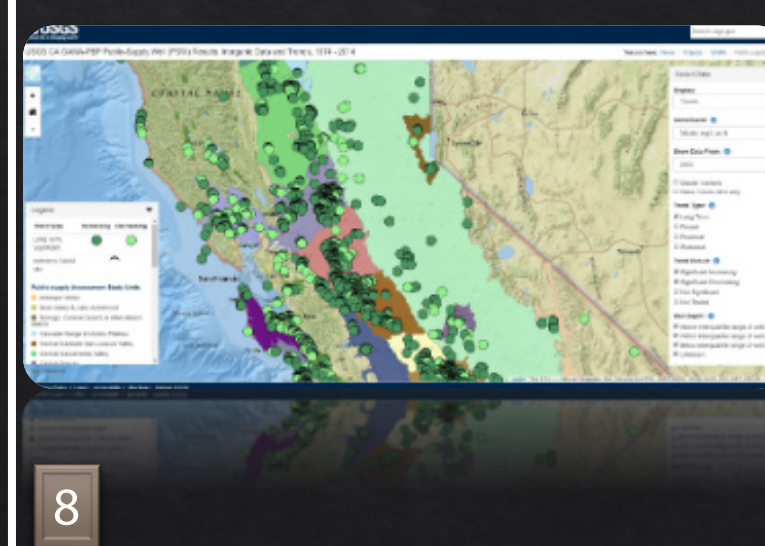
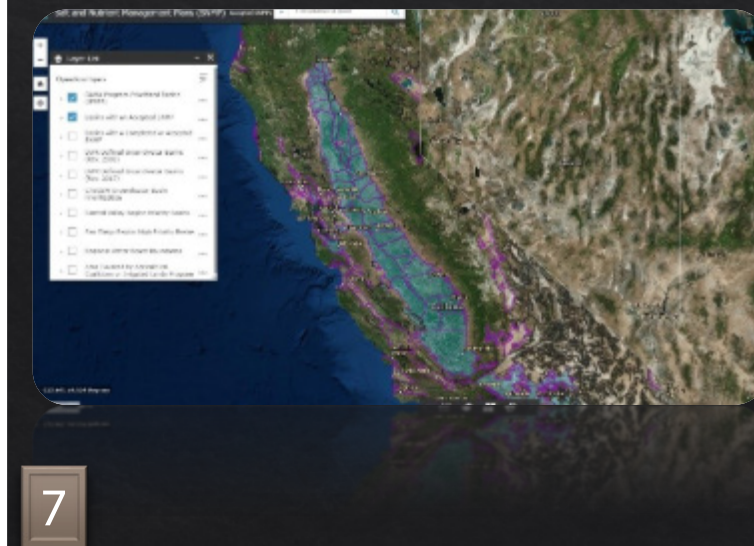
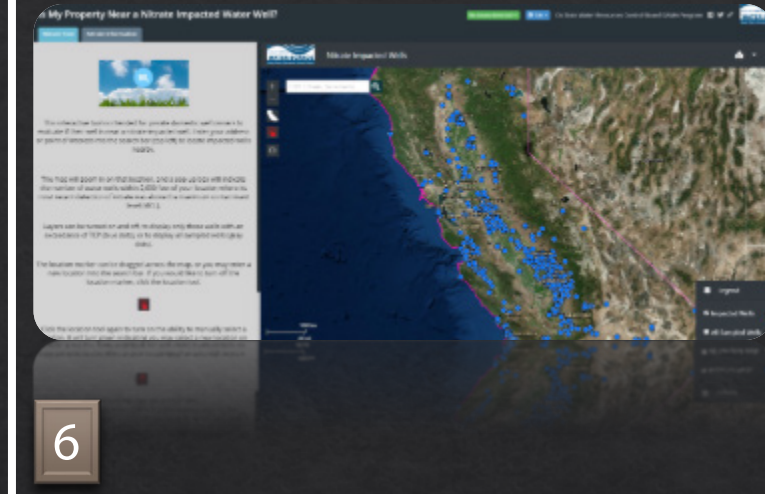
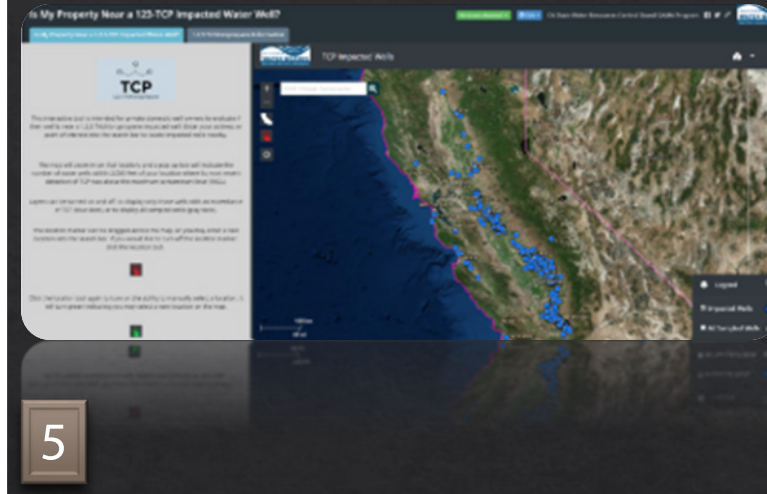
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4

GAMA ONLINE TOOLS

5. Is My Property Near a 123-TCP Impacted Well?
6. Is My Property Near a Nitrate Impacted Well?
7. Salt and Nutrient Management Plans Webmap
8. U.S. Geological Survey Trend Analysis Tool

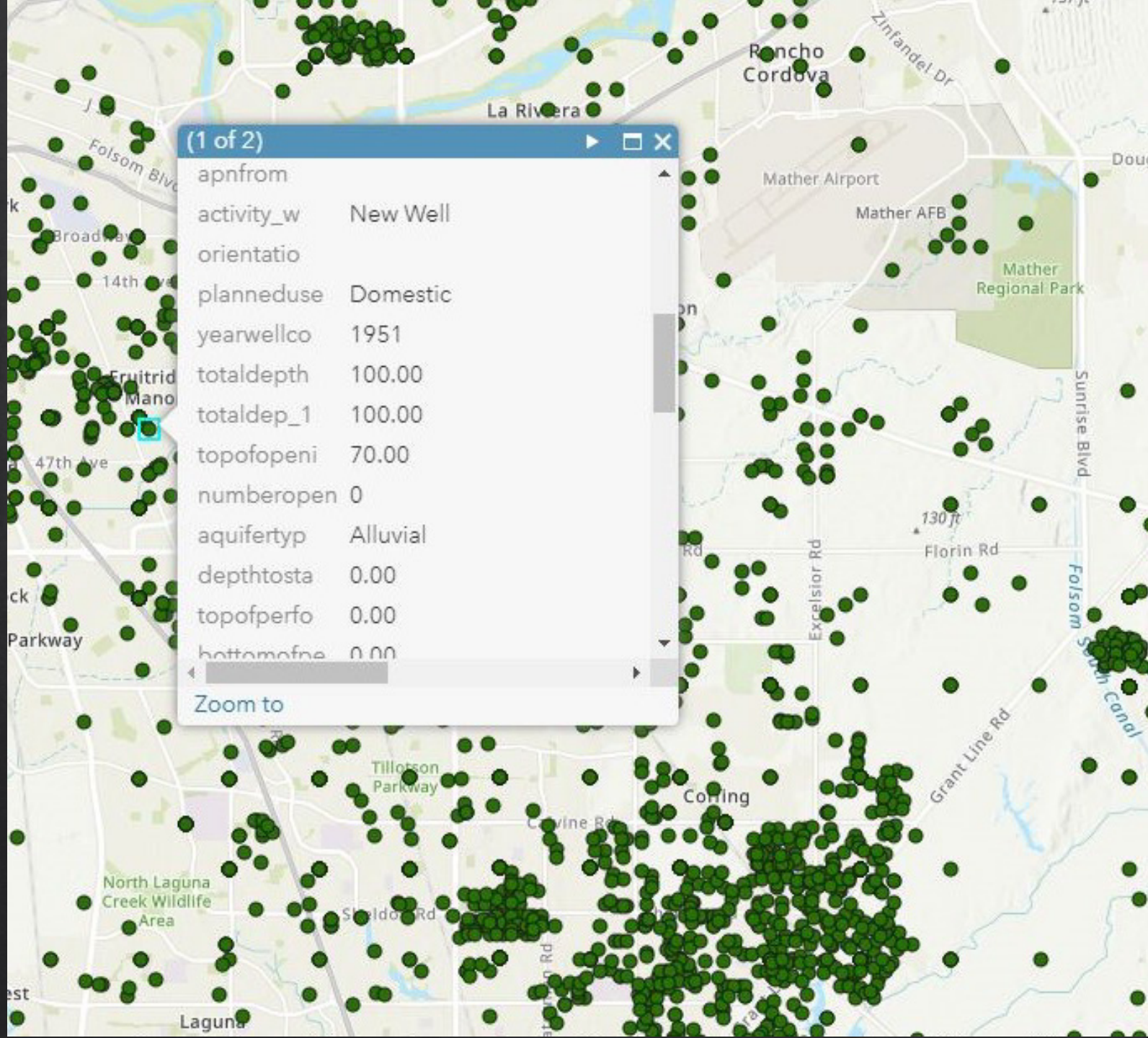


COMING

SOON!

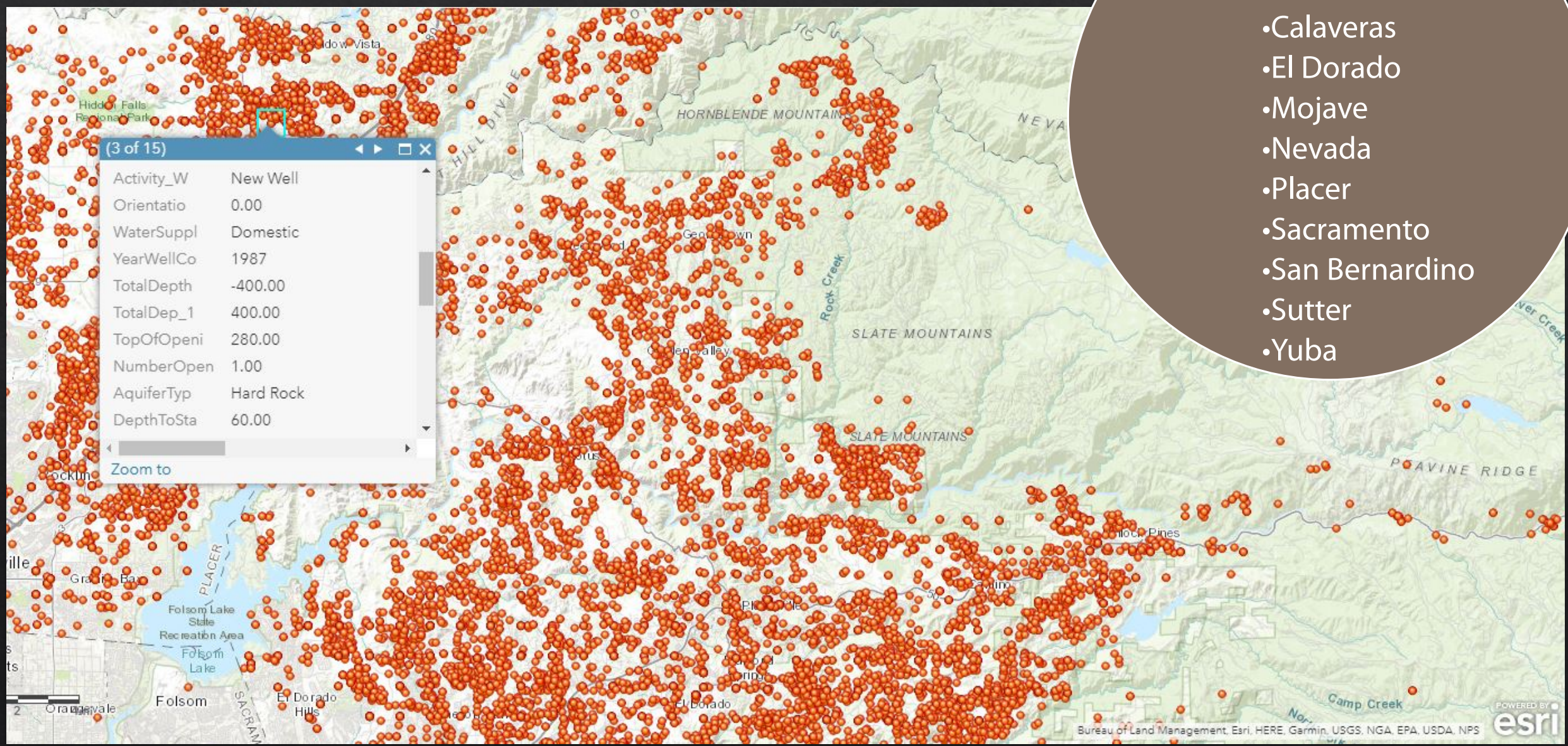
GAMA ONLINE
TOOLS:

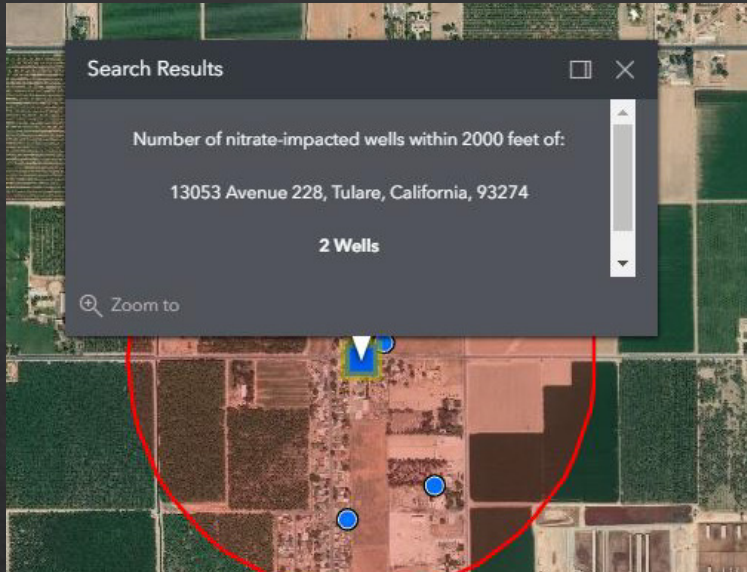
DIGITIZED WELL
COMPLETION
REPORTS



~150,000 reports digitized to date in the following counties

- Amador
- Calaveras
- El Dorado
- Mojave
- Nevada
- Placer
- Sacramento
- San Bernardino
- Sutter
- Yuba





Ideas for GAMA Program Efforts *to Achieve Needs Analysis Goals*

- Use existing Shallow Aquifer Assessment Study to reach well owners in study unit's community
 - Partner with other groups to help advocate for well testing in community
 - Provide avenue and opportunity to well owners for point-of-use (POU) treatment
 - Educate well owners about groundwater quality and its domestic drinking water use
 - Create more online data tools for domestic well owners

THANK YOU

GAMA Program Website:

<http://www.waterboards.ca.gov/gama>

GAMA Program Email:

gama@waterboards.ca.gov



DOMESTIC WELL PROJECT

- Between 2002 and 2011, the GAMA staff sampled over 1,100 private wells
- Six California counties:
 - Yuba, El Dorado, Tehama, Tulare, San Diego, and Monterey
- Tested for commonly detected chemicals
- Voluntary participants received analytical test results and fact sheets
- Water quality data is included in GeoTracker GAMA
- Currently on hiatus

