

GAMA Priority Basin Project – Background Summary

The GAMA Priority Basin Project was implemented as the result of the Groundwater Quality Monitoring Act of 2001 (AB 599). The main objectives of GAMA are to improve statewide ambient groundwater quality monitoring and assessment and to increase the availability of information about groundwater quality to the public.

GAMA Priority Basins include 116 of the 472 DWR-defined basins that account for 95% public supply wells, 99% municipal pumping, 90% agricultural pumping, 90% leaky underground tanks, 90% pesticide applications and 60% of land area in California. These high-use, priority basins have been grouped into 36 groundwater basin “study units” to facilitate the project. In addition, wells have also been sampled in low-use basins and areas outside basins (hard rock). Over 1,000 well owners have participated.

The GAMA Priority Basin Project is designed to operate on a 10-year cycle with 3-year trend monitoring. The project is funded by Proposition 50 bond funds of \$50 million through 2012.

The GAMA Priority Basin Project samples wells for hundreds of common contaminants as well as constituents that are not currently regulated. Testing for these chemical constituents (quite often at levels below standard methods) can help assist public and private groundwater stakeholders to manage the resource. Some of the chemical constituents that are routinely sampled by GAMA include:

- Low-level VOCs and Pesticides
- Stable Isotopes, Deuterium, Oxygen-18
- Tritium-Helium / Noble Gases
- Emerging Contaminants:
 - Potential Wastewater indicators
 - Pharmaceuticals
 - Perchlorate
 - 1,4-dioxane
 - Chromium (total and VI)
- Carbon Isotopes (C-13, C-14)
- Radon, Radium, gross alpha/beta
- Field parameters: temp, EC, DO, turbidity, pH, alkalinity
- Major ions and trace elements
- Arsenic & Iron speciation
- Nutrients - nitrate, phosphates
- Dissolved Organic Carbon
- Total and Fecal Coliform Bacteria