GROUP: SURFACE WATER QUALITY MONITORING

MEASURE: SITE VISITS AND SAMPLING EVENTS ANALYSES CONDUCTED

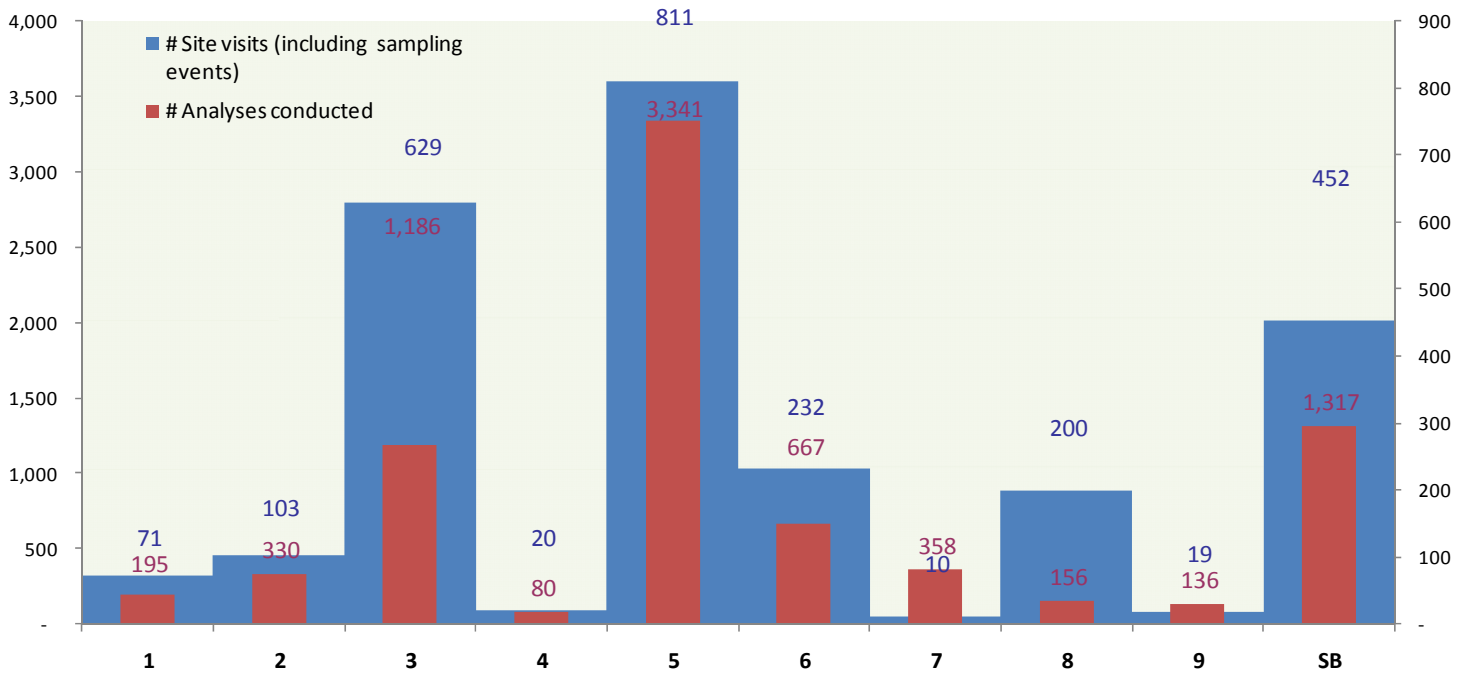
KEY STATISTICS FOR FY 2009-10

SITE VISITS AND SAMPLING EVENTS: 2,547
ANALYSES CONDUCTED: 7,766

MESSAGE: ***Variations in surface water monitoring efforts throughout the State are influenced by differences in regional needs, strategies, and resources.***

MEASUREMENTS:

Region	# Site visits and sampling events	# Analyses conducted
1	71	195
2	103	330
3	629	1,186
4	20	80
5	811	3,341
6	232	667
7	10	358
8	200	156
9	19	136
State Board and other agencies	452	1,317
TOTAL	2,547	7,766



WHAT THE MEASURE IS SHOWING:

In Fiscal Year (FY) 2009-10, the State and Regional Water Boards conducted 2,547 site visits to take measurements and samples that resulted in 7,766 analyses. Monitoring needs, strategies, and resources vary among the Regional Water Boards, so the number of samples collected and analyses conducted also varies among the regions.

WHY THIS MEASURE IS IMPORTANT:

Monitoring and assessment of the State's surface waters provides data and information to determine the status and trends of their water quality condition. This data and information also allows the Water Boards to establish water quality standards, determine compliance with requirements, guide actions to protect these waters, and evaluate the effectiveness of pollution control efforts. The Water Boards' Surface Water Ambient Monitoring Program (SWAMP) monitors and assesses the State's surface waters, directly and through collaborative partnerships, such as with the California Department of Water Resources and the California Department of Fish and Game, to support water resource management. Data from SWAMP is used for many purposes, including the State's water quality assessment report, "Clean Water Act Section 305(b) Report on Water Quality", and the impaired water bodies list, "Clean Water Act Section 303(d) List".

TECHNICAL CONSIDERATIONS:

- **Data Source:** SWAMP Database. **Period:** July 1, 2009-June 30, 2010. **Extracted:** July 2010
- **Unit of Measure:** Number of site visits and analyses conducted in FY 2009-10.
- **Data Definitions:** *Site visits (Including sampling events):* A visit to a monitoring station on a given day to make observations, take measurements, and/or collect water samples for analysis (known as a sampling event). *Analyses:* Samples taken during a site visit may undergo chemical, physical, toxicological, or biological analyses in the field or laboratory. While analyses address a wide range of parameters, from $3 pH measurements to $6,000 toxicity identification evaluations, each analysis reported here is counted the same, regardless of cost or complexity.
- **References:** More information on the Water Boards' SWAMP program is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/. More information on SWAMP partnerships is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/achievements/coordination.shtml. The statewide monitoring strategy is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cw102swampcmas.pdf. Regional Water Board fact sheets on regional monitoring strategies:
  - Region 1 - North Coast Region
  - Region 2 - San Francisco Bay Region
  - Region 3 - Central Coast Region
  - Region 4 - Los Angeles Region
  - Region 5 - Central Valley Region
  - Region 6 - Lahontan Region

  - Region 8 - Santa Ana Region
  - Region 9 - San Diego Region
- SWAMP data are available at: http://swamp.mpsl.mlml.calstate.edu/online-data

GLOSSARY:

Ambient Monitoring: Ambient monitoring refers to the collection of information about the status of the physical, chemical, toxicological, and biological characteristics of the environment.
Clean Water Act Section 303(d) List: Under the federal Clean Water Act (CWA), states must submit the CWA section 303(d) list to the U.S. Environmental Protection Agency (USEPA) every two years. The Water Boards assess water quality data for California's waters to determine if they contain pollutants at levels that exceed protective water quality standards. Waters that exceed their standards are listed as impaired on the State's 303(d) list, or list of impaired waters (also known as water quality limited segments). For 2010, both the CWA Sections 303(d) list and the CWA Section 305(b) report are being prepared as an Integrated Report. More information on the Water Boards' latest impaired water bodies list: http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml.
Clean Water Act Section 305(b) Report: The federal CWA Section 305(b) requires each state to report on the quality condition of its waters. The State Water Board submits its water quality condition assessment report to the USEPA every two years. The report provides water quality information to the general public and serves as the basis for USEPA's National Water Quality Inventory Report to Congress. More information on the Water Boards' latest water quality assessment report: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/factsheets/305breport2006.pdf.
Impaired Water Body: An impaired water body is also known as a water quality-limited segment on the State's CWA Section 303(d) list. Impaired waters are listed as specific water body-pollutant combinations that are not meeting protective water quality standards.
Parameter: A parameter is a measurable or quantifiable characteristic or feature of water quality, such as temperature, pH, dissolved oxygen, sediment, bacteria, metals, nutrients, pesticides, and toxicity.
Sampling Event: During a site visit, water samples or measurements can be collected from a specific water body site(s) to represent the water body as a whole. These samples are then analyzed for specific parameters, either in the lab or field.
Surface Water: Waters that are naturally open to the atmosphere such as rivers, lakes, reservoirs, ponds, estuaries, and ocean. These waters form from collected water on the ground, and are naturally replenished through precipitation and naturally lost through evaporation and sub-surface seepage into the groundwater.
Surface Water Ambient Monitoring Program (SWAMP): Water Board program responsible for coordinating all water quality monitoring conducted by the State and Regional Water Boards. In addition, SWAMP promotes collaboration with other entities by proposing conventions related to monitoring design, measurement indicators, data management, quality assurance, and assessment strategies, so that data from many programs can be used in integrated assessments.