State Water Resources Control Board Data Fair

March 30, 2018

Welcome

- This is our second Data Faire (2 years ago was first)
- This is meant to be an open house to share our data worlds with the people who live in them with us!
- We have representatives from all our main databases available at 11:30 in the mezzanine
- We thakn our partners at ImagineH2O for bringing 8 amazing technology innovators / entrepreneurs to our open house – also at 11:30
- This morning we will showcase our groundwater data world and in the afternoon we will have a moderated exploration into the world of our surface water regulatory (NPDES) data

- What do we do?
  - We preserve, enhance, and restore the **quality** of California's **water resources and drinking water** for the protection of the **environment, public health**, and all beneficial uses and
  - We ensure proper **water resource allocation and efficient use**, for the benefit of present and future generations
- How do we do it?
  - "**licenses and applications**" for water diversions (water rights)
  - "**permits**" for
    - wastewater discharges to surface water and groundwater
    - storm water discharges from construction, industrial, and municipal activities
    - discharges from irrigated agriculture
    - dredge and fill activities
    - Protection of "wetlands" or alteration of federal water bodies (401 certification program)
    - other activities that could degrade water quality

How do/can we use data?

- Data driven decision making
  - What is the appropriate pollutant load for a lake or stream reach?
  - How much water conservation is the right amount?
- Data driven management
  - How many inspections can we do next year?
  - How big should our laboratory budgets be?
- Outreach / education
  - Your water in your area is not safe to let your dog play in (harmful algal blooms).
  - Fish consumption risk varies depending on fish, where you caught it, and the age and gender of the person eating it – here's how!

Drivers of change in our approach to data and information

- Increasing availability and size of data
  - Sensors, remote sensing, …
- Technological advancements in data storage/management/analysis
- Increasing expectations from the public for
  - data access (open data) – e.g. drinking water quality, discharge water quality
  - transparency in decision making (access to analysis and underlying data) – e.g. SGMA, water conservation standards, …
  - meaningful communication of data (ability to dig in to data and get insights) – e.g. data stories
  - use of modern/cutting edge tools and analysis techniques (i.e., take advantage of tools/techniques being used in industry) – e.g. water supply forecasting / water rights allocation
  - usability and accessibility (transmitting data / submitting forms / finding information)