

## Preliminary Pulse Outline for 2013

### Pulse of the Bay

#### Theme: Contaminants of Emerging Concern

#### Articles

- Management
  - Water Board Management of CECs (R2 policy, State Strategy) - Mumley, Feger, Larsen?
    - Sidebar
      - Blue Ribbon Panel
  - Green Chemistry to Prevent Water Pollution - Debbie Raphael, Meg Sedlak, Werme, Klosterhaus
- Science
  - RMP CEC Synthesis Highlights - Werme
    - Sidebars
      - CEC Strategy
      - Nonylphenol
      - Fipronil
      - PPCPs
      - Pyrethroids
      - PBDEs - Contaminants of diminishing concern
      - Brominated dioxins
  - NMW California CEC Study - Dodder, Maruya, Davis
    - Sidebars
      - Pro Bono Bivalve Study
      - North vs South comparison
      - PAHs in NOAA mussels after oil spill (from Dominic Gregorio)
  - PFOS in San Francisco Bay - Sedlak
  - Broadscan Screening for CECs - John Kucklick et al., Werme

#### Latest Monitoring Results

- Mercury
  - Schwarzbach - mercury in rail feathers
  - SWAMP Coast Survey
  - Weiss - methylmercury in fog - <http://news.sciencemag.org/sciencenow/2012/03/beware-the-fog.html?ref=hp>
- Nutrients
  - Bill Dennison data: Chesapeake, Australia - <http://www.sciencedirect.com/science/article/pii/S0025326X08005304> Mike C 3/29/12
  - Microcystin in the Bay

**Trends at a Glance - Possible Additions**

- Dredging graphs: check LTMS 2012 program review background info; Sandra scoggin 3/26
- Pacific decadal oscillation?
- El Nino?
- Clapper rails
- Clam predators
- Clams
- Shellenbarger and Schoellhamer 2011? Salinity and temperature
- Pacific herring
- English sole
- Salmon
- Populations of Traditional v. Exotic species
- Water export rates from the Delta
- Net depositional/ erosional by smallest size feasible
- Acreage of marshland/ wetlands - correlation with nutrients?
- Clapper rails and predators
- HABs
- Trash impacts and loadings
- People population
- Musk, perfumes, deodorant effects on aquatic life
- Impacts of Water Diversion Project
- Population
- Wetland acres total
- Land cover/ land use
- Impervious acres
- \$ spent vs. % improvement
- More information broken out by bay segment, eg. NH<sub>3</sub>, phytoplankton biomass and speciation
- Why start all y-axes at 0?
- N. and S. Bay multi-station rainfall + flow (daily) index
- Benthos prey/ benthos abundances over time eg. RMP sediment triad data
- We need to monitor the far field response of the South Bay to salt pond restoration. We can expect greater tidal prism and erosion of channels to accommodate circulation. What will that mean to DO, chlorophyll, etc?
- Results of wetland management, development, and MeHg production

**Miscellany**

- Porpoises <http://science.kqed.org/quest/audio/porpoises-return-to-san-francisco-bay/>
- Hypsographs of the Bay - Mike Connor suggestion Meg 5/8/12