Southern California Bight
Regional Monitoring Program
Bight ‘13 is the Largest Survey To Date

- Contaminant Impact Assessment
- Nutrient Impact
- Debris Assessment
- Microbiology
- Marine Protected Area/Rocky Reef
Bight Program Has Some Exciting Elements

- In some ways, Bight has become routine
  - Important for trends monitoring

- In other ways, Bight is more unique than ever

- Perhaps the most special studies of any survey to date
  - Great opportunities for some terrific science
Chemicals of Emerging Concern

- Measuring four classes of new chemicals
  - Pesticides, alkylphenols, Perflourinated compounds, flame retardants
- Testing the new bioanalytical screening tool for toxicity
- Opportunity to evaluate a risk based approach to CECs
  - occurrence vs. toxicity
Causal Diagnosis

- Molecular Toxicity Identification Evaluation (TIEs) are the new frontier
  - Gene regulation, protein synthesis

- Bight’13 covers the full range of toxicant exposure

- Opportunity to link molecular with organismal levels
  - Standard toxicity tests, Sediment TIEs
  - Biological community analysis
Unprecedented Bioaccumulation Survey

- First bightwide survey of bioaccumulation in bird eggs
  - Wildlife risk

- Coupled trophic transfer studies

- Opportunity to bring all dischargers together
  - Model monitoring recommendation
Unique Indicators

- Linking debris between land and sea
  - Identify sources and fate for different types of plastic

- Examine biological effects
  - Plastic ingestion by fish

- Leveraging opportunities of scale
Novel Data Utilization

- Creating an index of water quality pressure
  - Stormwater plume probability maps

- Creating an index of fishing pressure
  - Aerial overflights

- Creating a rocky reef biological integrity index
Summary of Sample Initiation

- Contaminant Impact Assessment – Summer 2013
- Nutrient Impact – Spring 2014
- Debris Assessment – Summer 2013
- Microbiology – Summer 2013
- Marine Protected Areas – Sampling completed
Bight’13 Provides Unparalleled Opportunities

- Investigate issues without modifying your permit
- Evaluate new technology and test novel methods
- Develop new assessment tools
- Tie all of these to the SCCWRP Research Plan
  - Perfect mechanism for fostering interaction with our member agencies