



"Mussel Watch"

A Sentinel for Safe, Healthy & Productive Coasts

Quick Facts

Program at a Glance

Only Program of its
kind; started in
1986

Broad Federal,
State & Local
Partnerships

300 sites
nationwide

120 Chemicals
monitored

Chemicals
measured in
Oysters, Mussels
and Sediment

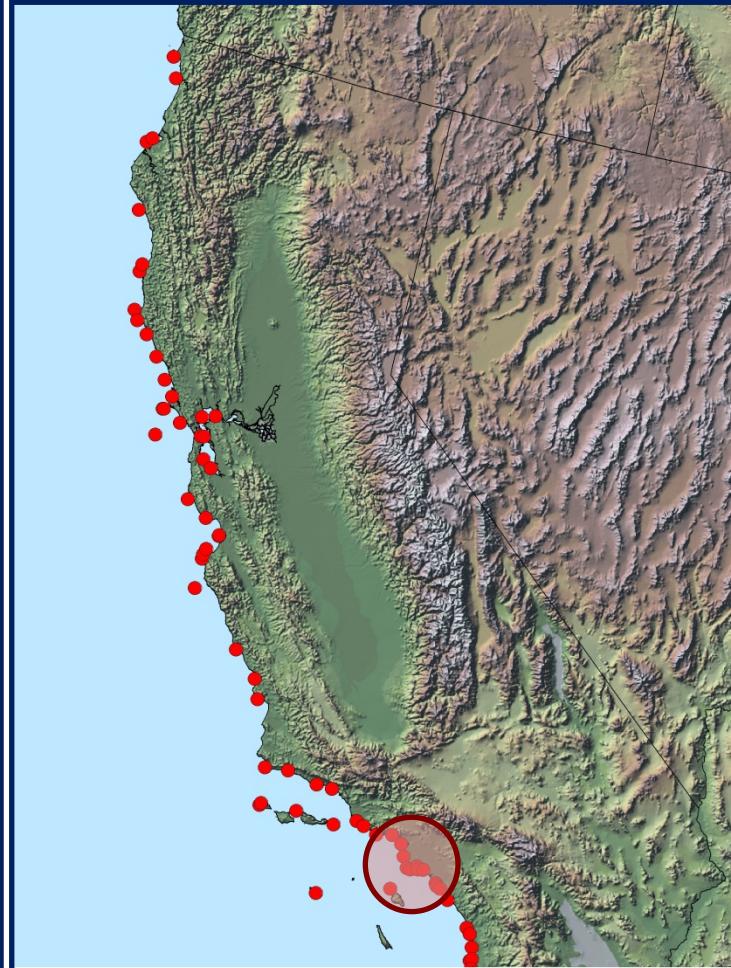
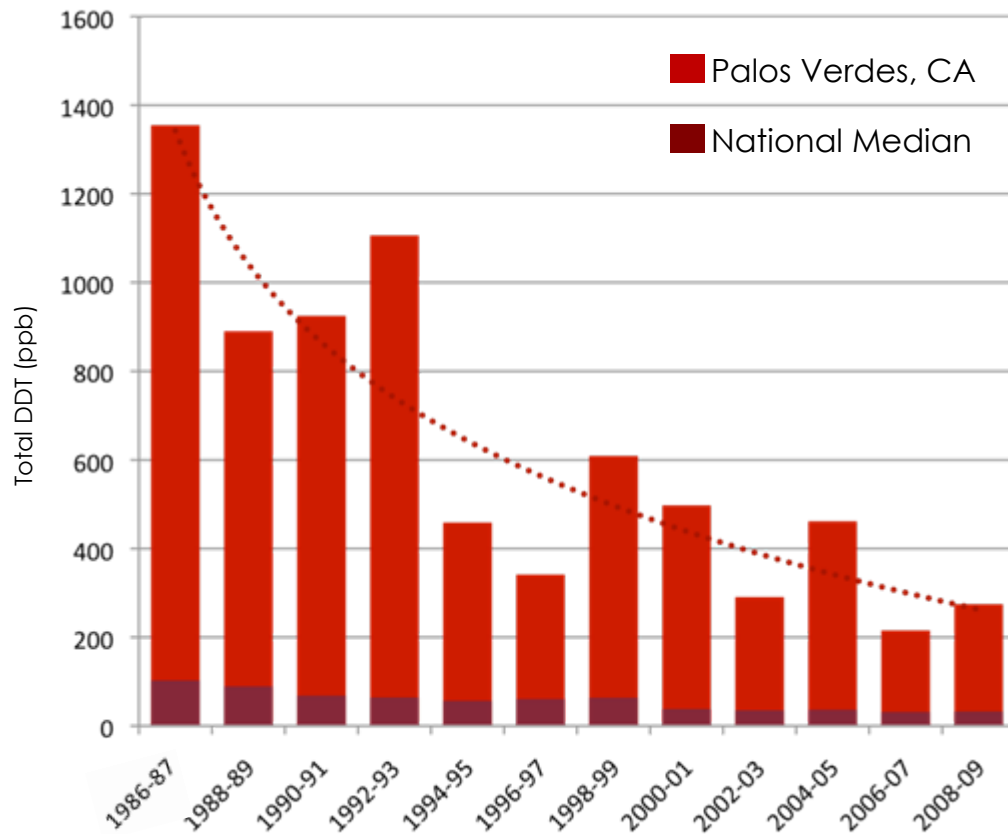




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DDT – Banned (1972) but Persistent



State of our Shores



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Moving Forward

Re-engineering Mussel Watch

**Over 3000 new chemicals
are engineered each year**

**Most will enter coastal
environments**

**Many will impact these
environments**

**Mussel Watch is changing to
address new potential
threats**

**An assessment of PBDE
flame retardants was our
first step**

Others will follow



Pharmaceuticals

California is the case study for a broader nation-wide effort to better assess CECs

Partners:

NOAA and other Federal Agencies

Southern California Coastal Water Research Project

San Francisco Estuary Institute,

State of California Water Resources Control Board



- Up to 80 sites to be sampled
- Enhanced screening for priority CECs
- Identification of contaminated sites

FUTURE WORK: INVESTIGATE EFFECTS OF CECs ON FISH HEALTH



Effects of Legacy Pollutant on Fish

Reduced growth

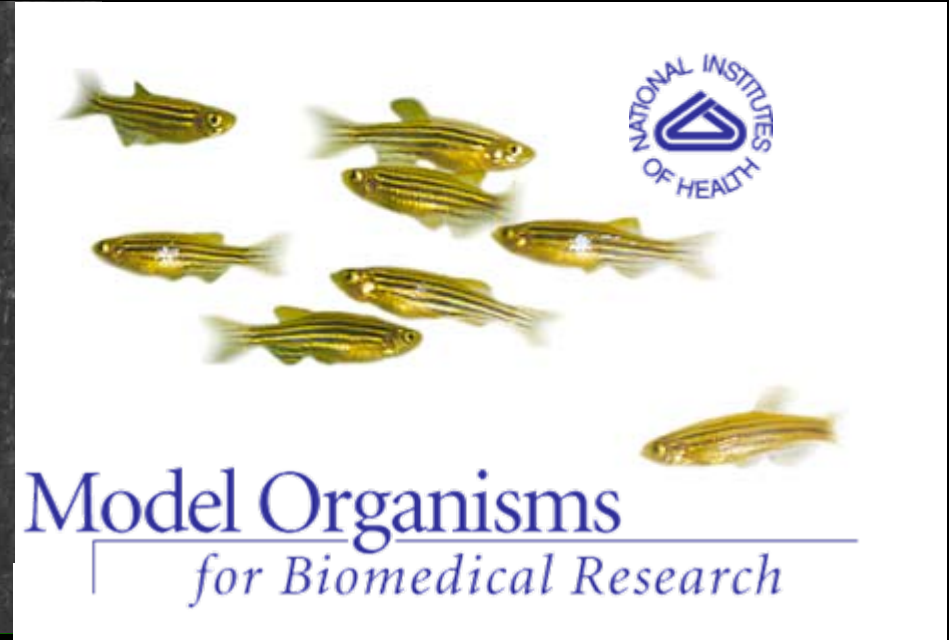
Reproductive Impairment

Increase susceptibility to disease

Modeled population declines



Oceans and Human Health Initiative: The Oceans are a Sentinel for Human Health



toxic effects on
fish/shellfish



reduced fisheries
productivity

toxic compounds in
fish/shellfish



threat to human
consumers

toxic effects on
fish/marine mammals



same toxic effects
on humans