



"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

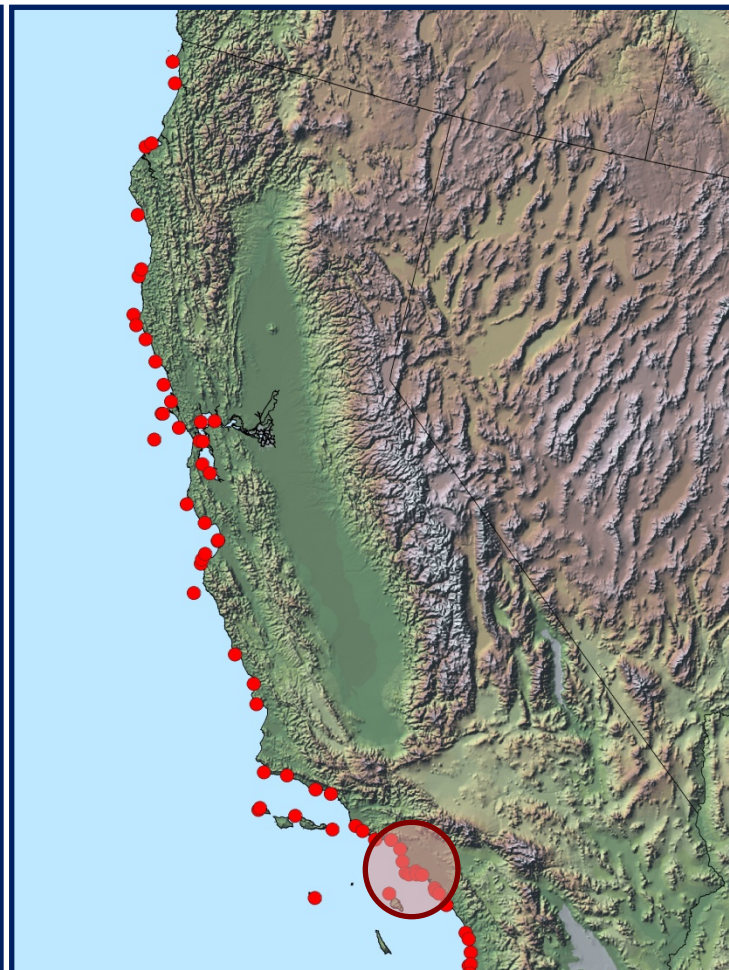
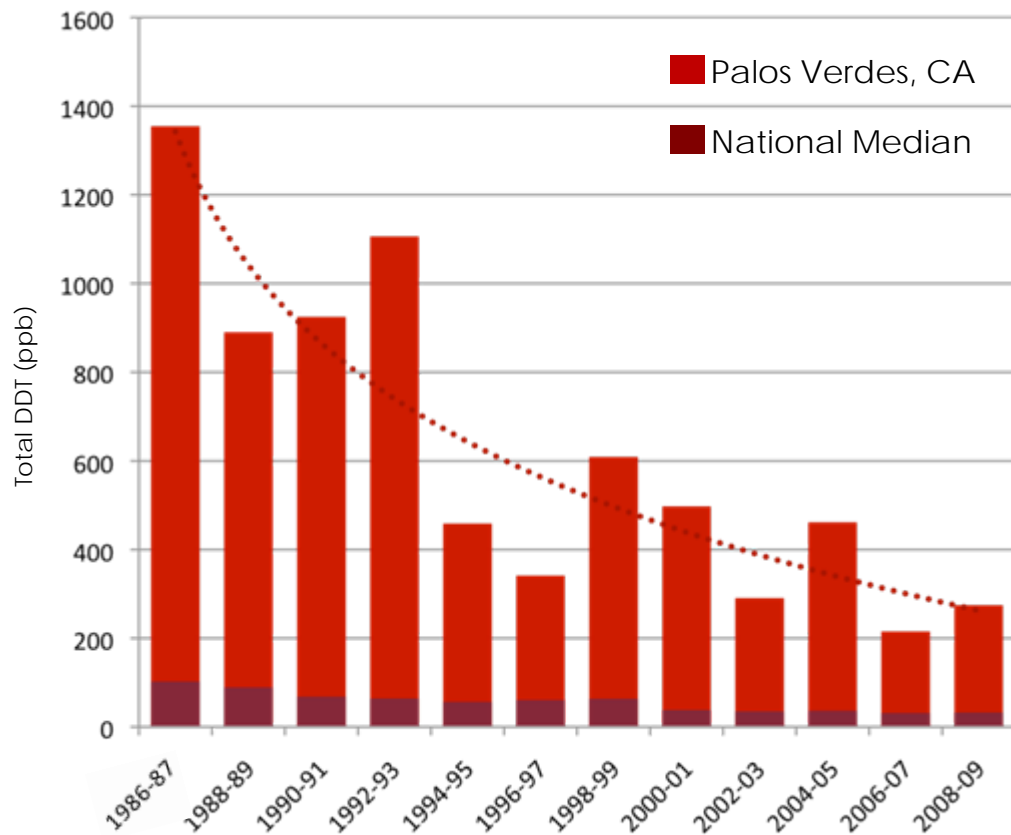




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DDT – Banned (1972) but Persistent



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

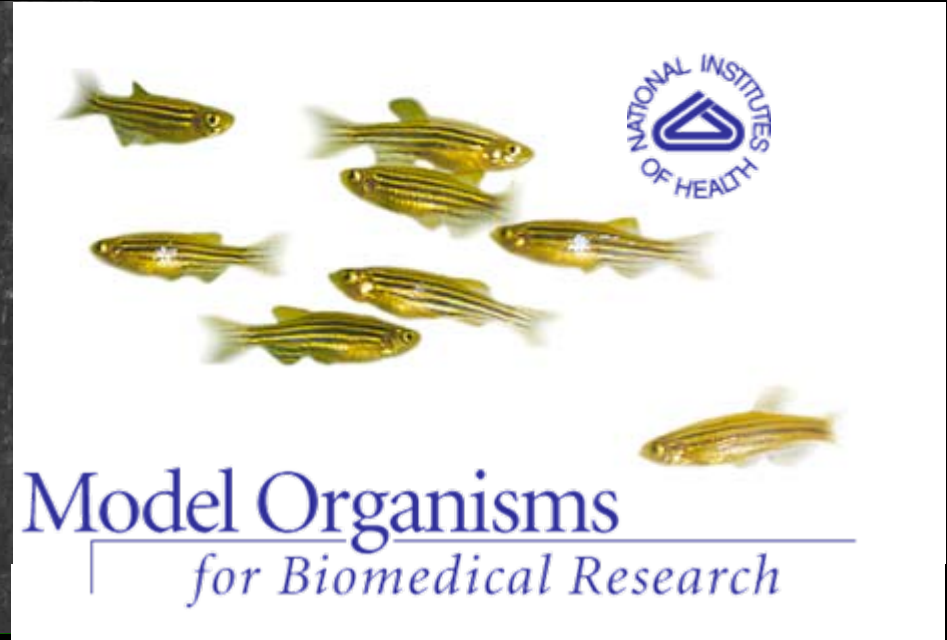
Reproductive Impairment

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