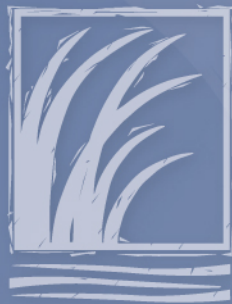


# National Estuarine Research Reserve System

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## **Program Overview and Priorities**

**West Coast Regional MPA Government Partners Workshop  
Monterey, California**



# A Network of 27 Protected Areas ...



protected for:

- **Long-term research and monitoring**
- **Education**
- **Resource stewardship**



# National Programs

- **System-wide Monitoring Program**
- **Graduate Research Fellowship Program**
- **Coastal Training Program**
- **Education Program**



# System-wide Monitoring Program (SWMP)

## Abiotic Monitoring

- **Water quality**
- **Weather parameters**

## Efforts:

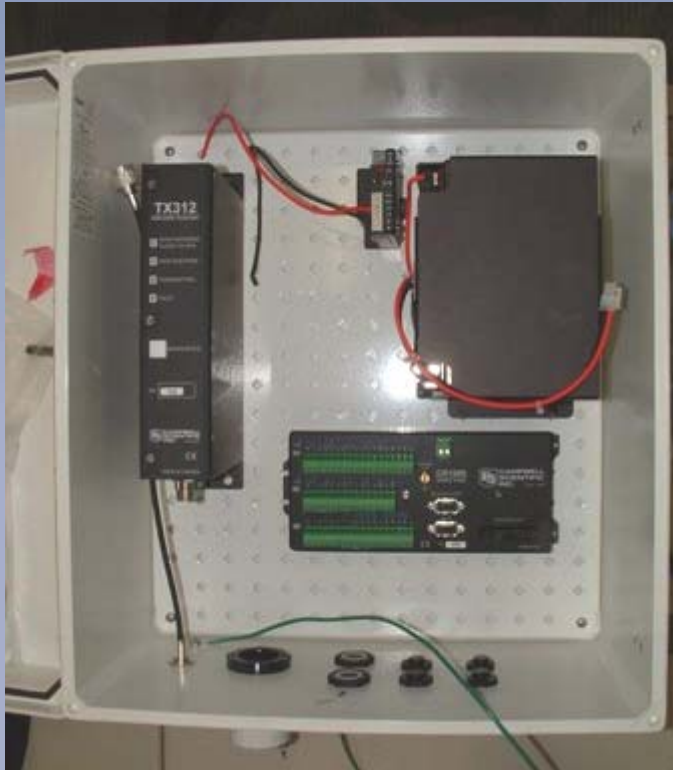
- **National Water Level Observing Network (NWLON)**
- **Telemetry**
- **IOOS Integration**



# System-wide Monitoring Program (SWMP)

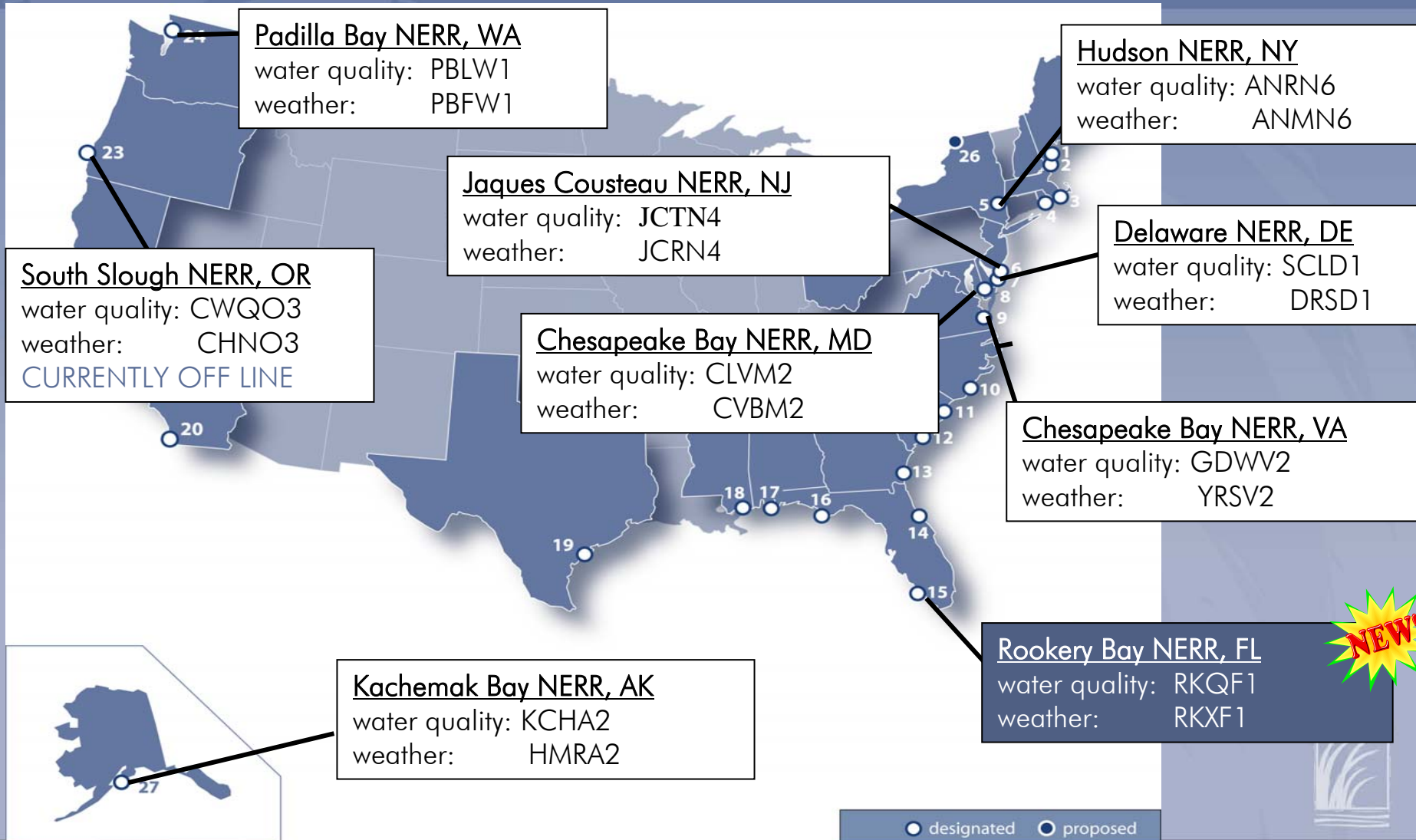
Telemetry — by end of 2006

- 27 weather stations
- 35 water quality stations

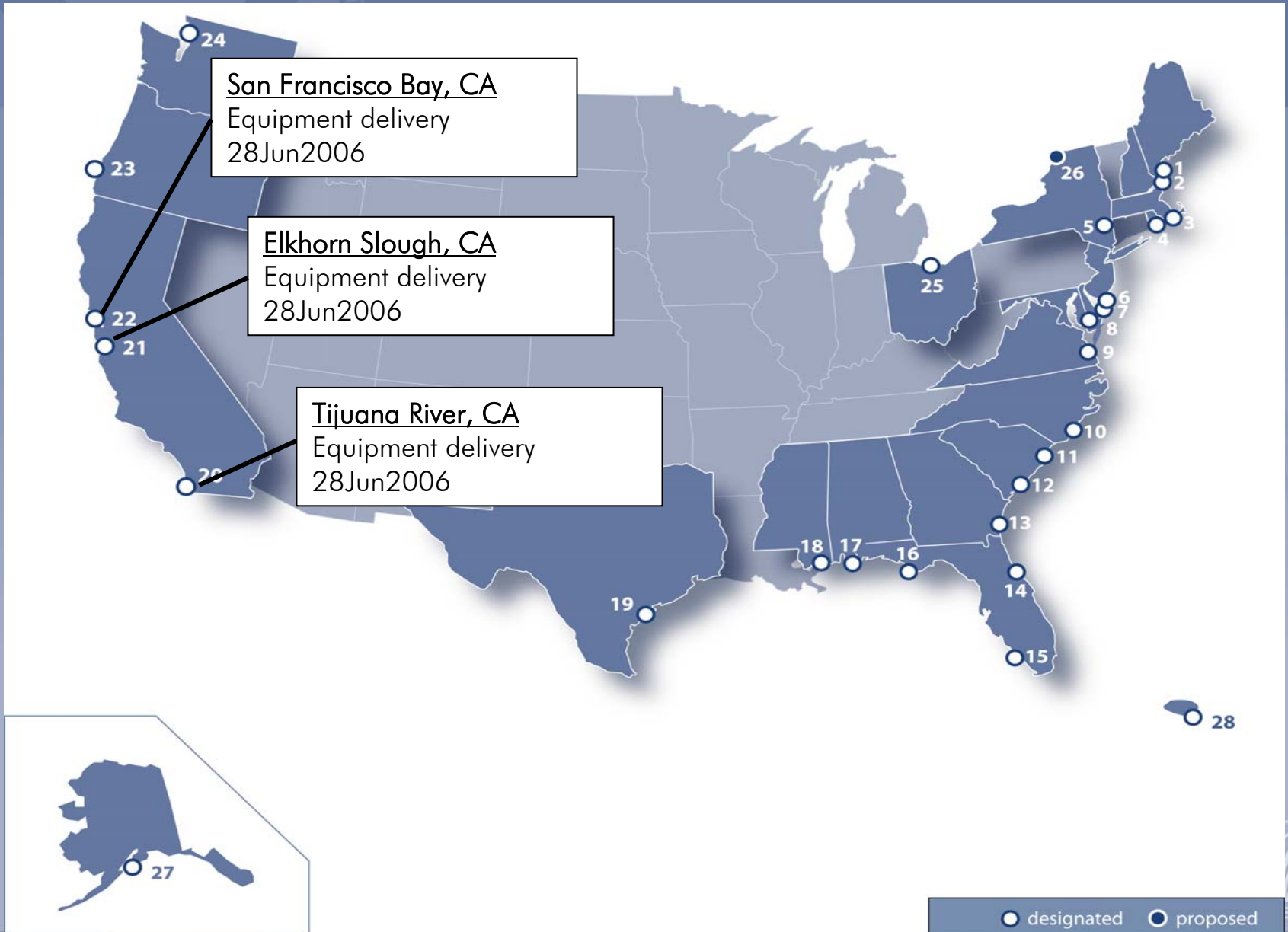


# Real-time data available now

## 8 pilot reserves and 1 build-out reserve on CDMO + HADS web site for local weather forecasters



# California GOES Telemetry soon





## data visualizations

Welcome to the Centralized Data Management Office - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address [http://cdmo.baruch.sc.edu/QueryPages/multichart.cfm?Station\\_Code=cbmcmwq&mindate=01/01/2004&maxdate=12/31/2004&tbl=Water8](http://cdmo.baruch.sc.edu/QueryPages/multichart.cfm?Station_Code=cbmcmwq&mindate=01/01/2004&maxdate=12/31/2004&tbl=Water8)

NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM  
CENTRALIZED DATA MANAGEMENT OFFICE

CDMO Home  
About CDMO  
About Data  
Get Data  
ners.noaa.gov

Select two parameters to graph  
Water Temperature (Temp) Dissolved Oxygen (DO\_mgl)  
Go  
[Click here to graph one parameter](#)

**FusionCharts 2.3**  
Average Daily Water Temperature (Temp) vs. Dissolved Oxygen (DO\_mgl) For Station Code: cbmcmwq

degrees Celsius

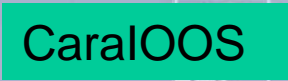
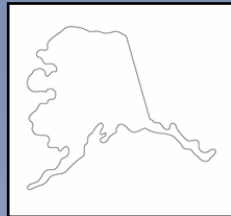
milligrams per Liter

● Water Temperature (Temp) ● Dissolved Oxygen (DO\_mgl)

Internet

# IOOS Integration

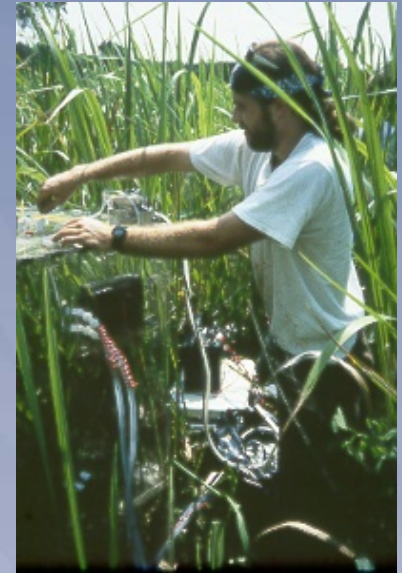
## 11 Regional Associations



# SWMP: Biological Monitoring

*“What are the patterns of short-term variability in community composition, species abundance and distributions, and what are the patterns of long-term change?”*

- **Priority: Submerged aquatic vegetation (SAV) and emergent marsh**



- **Nekton**
- **Plankton**
- **Marsh Birds**



# SWMP — Habitat Mapping and Change

## Main Efforts:

- **NERR classification scheme**
- **Habitat mapping and change plan**



# Graduate Research Fellows

- **Non-point source pollution**
- **Habitat restoration**
- **Biodiversity and the effects of invasive species**
- **Sustaining estuarine ecosystems**
- **Socioeconomic applicable to ecosystem management**

## **Main Efforts:**

- **Continue to promote student participation**
- **Promote socio-economic studies**



# Coastal Training Program

- **Enhance the capacity to use scientific information for decision-making**
- **Increase networking and collaboration among coastal decision-makers**



## **Efforts:**

- **Promote larger participation and diversity to workshops. Audience may include:**
  - Planners
  - Elected officials
  - Non-profit staff
  - Resource managers
  - Landscapers, developers



# Training Topics

- **Water quality**
- **Habitat restoration**
- **Storm water management**
- **Watershed management**
- **GIS training**
- **Wetland deliniation**



# Education and Outreach

- **K-12 Estuarine Education Program (KEEP)**
  - EstuaryLive
  - Estuaries 101
- **IOOS Education**
- **Reached approximately 80,000 students & 3,000 teachers**



*Enhancing science and technical literacy*





# EstuaryLive! - Promoting estuarine literacy and stewardship

- Live, interactive, field-based experiences via the Internet!
- Featured program for National Estuaries Day
- 15,000 teachers and students participating via the Internet!!
- Over 1,000,000 viewers!!



# Stewardship in the NERRS

- **Habitat restoration**
- **Restoration science**
- **Habitat management**
- **Community based education**
- **Technical support**
- **Regional partnerships**



# Emerging Priorities



- **Telemetry**
- **IOOS**
- **SAV/Emergent monitoring**
- **Habitat classification and mapping**
- **Socio-economic research**
- **KEEP (EstuaryLive - Estuaries 101)**
- **Restoration Science**

