

K. DATA PRODUCTS

TASKS

A. WATER QUALITY MANAGEMENT COMMUNITY
 B. ENVIRONMENT & ECOSYSTEM VARIABILITY
 C. OIL SPILL, SEARCH & RESCUE, MARINE SAFETY
 D. PUBLIC USES

BIGHT-WIDE: CLIMATE TRENDS, VARIABILITY & ECOSYSTEM RESPONSE				
Compilation of historic and near real-time (when available) oceanographic and atmospheric time series from the bight, provided in easily accessible summaries.	•	•	•	•
Development of ocean-state indices using model-based reanalysis and data-based approaches to describe bight-wide upwelling, stratification, nutrients, and other subsurface fields.	•	•		•
Development of dynamic and environmental indices that include a measure of how strong and how numerous eddies, plumes, and associated fronts are in the Southern California Bight.	•	•	•	•
Descriptions of ocean advection, the connectivity of different populations, and their transport and dispersion by ocean currents — Product: Bight-wide circulation response patterns.	•	•	•	•
Ecosystem surveillance using nearshore egg and larva surveys to complement CALCOFI— Product: delivery of data to Fisheries and synthesis of trends.	•	•		•
SHORELINE WAVES AND CURRENTS				
Realtime, Bight-wide wave height conditions at 10m isobath (landfall) with 200m along-coast resolution.	•	•	•	•
Realtime estimates of surfzone currents north/south longshore currents along entire coast.	•	•	•	•
Historical time records of shoreline wave conditions, surfzone currents.	•	•		•
TRAJECTORIES AND PLUME LOCATIONS				
Determine the regional influence of a stormwater/river discharge on the coastline. Product — Time series of maps of shoreline discharges directed toward assessment of public health concerns. Integration of these maps with existing microbial sampling conducted by public health agencies.	•	•		•
Assessment of land inputs and their impacts to state-identified Critical Coastal Areas, including Marine Protected Areas and Areas of Special Biological Significance. Product — Trajectory synthesis to estimate exposure of sensitive areas to land inputs.	•	•		•
Characterization and tracking of offshore outfall plumes, including the extent of detectable limits. Product — maps of the plume.	•	•		•
Tracking and forecasting the transport of discharged oil:				
Realtime current and meteorological data to NOAA HAZMAT			•	•
Trajectory estimate for the water			•	•
Statistical trajectory synthesis for risk assessment and spill scenario analysis.			•	•
Trajectories of surface objects for purposes of search and rescue:				
Realtime current and meteorological data to USCG, local safety offices for SAROPS tools and search coordination.	•	•		•
HARMFUL ALGAL BLOOMS				
Web-based distribution of algal bloom relevant ocean observations and background public information. E.g., pier sensors, ocean color satellite images, bloom indices as they develop.	•	•		•
Bight-wide HAB surveillance results updated weekly.	•	•		•
Development of HAB relevant indices based upon inputs (nutrient) or ocean processes:				
Bight wide nutrient budgets that considers anthropogenic, horizontal, and vertical fluxes to aid in the identification of anthropogenic forcing of HAB formation.	•	•		•