KEY
NOAA
COASTAL
CAPABILITIES

COASTAL AND MARINE SPATIAL PLANNING PROGRAM (NOS)

MISSION: To support NOAA's engagement in the successful development and eventual execution of regional CMS Plans.

THEME TEAMS:

- Regional Coordination
- Data and Tools
- Ecosystems
- Ocean Uses
- Policy and Communications

RELEVANT CAPABILITIES:

- Provide leadership, capacity building and support for regional CMS planning and implementation
- Strengthen CMSP science, decision support tools and technological capacity
- Coordinate and enhance NOAA's internal CMSP efforts

PARTNERSHIP CONSIDERATIONS:

- Engagement with regional stakeholders and partners and technical assistance for regional CMSP implementation
- Has regional contacts located in all 9 planning regions

NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE (NOS)

MISSION: To provide coastal managers with the scientific information and tools needed to balance society's environmental, social, and economic goals.

RELEVANT PROGRAMS:

- Center for Sponsored Coastal Ocean Research
- Center for Coastal Monitoring and Assessment
- Center for Coastal Fisheries and Habitat Research
- Center for Coastal Environmental Health and Biomolecular Research
- Center for Human Health Risk
- Oceans and Human Health Initiative

RELEVANT CAPABILITIES:

- Science to:
  - manage threats from HABs
  - identify, monitor, and asses impacts of coastal contaminants
  - support coastal climate adaptation (i.e. predict impacts of sea level rise to coastal ecosystems)
  - support ocean management and planning
- Competitive funding for coastal science

PARTNERSHIP CONSIDERATIONS:

- Competitive science funding
  - About 60 awards per year totaling ~$15M
  - RFP issued in the Federal Register in the Spring
- We work with and provide technical assistance to coastal managers
  - Over 150 research projects per year
  - About 30% relate to CZMA, 40% to HABs, and the remainder to corals, monitoring, invasive species, etc…
- Can provide contacts for assistance in a particular subject or place.

COASTAL SERVICES CENTER (NOS)

MISSION: To support the environmental, social, and economic well-being of the coast by linking people, information, and technology

RELEVANT PROGRAMS:

- Coastal Geospatial Services
- Coastal Management Services
- Regional Coastal Services

RELEVANT CAPABILITIES:

- Development of Geospatial Data and Tools to address high priority coastal issues such as climate impacts and ocean planning
- Training and Technical Assistance to build capacity and skills to use best practices and most current natural and social science information for decision making
- Communication and Outreach to encourage sharing of innovative ideas and increase effectiveness and efficiencies within the coastal management community
- Data Acquisition and Processing to ensure quality and relevancy of data used for decision making

PARTNERSHIP CONSIDERATIONS:

- Provides products and services that meet a national need / priority and are useful at state and local scale
- Has regional offices and staff that support regional ocean partnership entities and priorities
- Has long established relationship with numerous state Coastal Programs and NERRS
- Coastal States Organization is one of the primary partners for Digital Coast

CENTER FOR OPERATIONAL OCEANOGRAPHIC PRODUCTS AND SERVICES (NOS)

MISSION: To serve as the authoritative source for accurate, reliable, and timely tide, water level, current, and other oceanographic information to support safe and efficient navigation, sound ecosystem stewardship, coastal hazards preparedness and response, and the understanding of climate change.

RELEVANT PROGRAMS:

- COASTAL
- Mapping and Charting
- Maritime Services

RELEVANT CAPABILITIES:

- Sea level/water level information and products
    - National Water Level Observation Network
    - Long-term sea level trends
    - Tidal datums
    - Predictions
    - Extreme water level heights
- Operational coastal hydrodynamic models
- Inundation information
- Tidal current observation
- Environmental data (e.g. meteorological)
- Technical guidance

PARTNERSHIP CONSIDERATIONS:

- Development of decision-support tools
- Provides technical assistance
    - Training
    - Documentation
    - Technical guidance
- Leveraging opportunities to fill NWLON gaps
- East and West Coast field offices; NOAA Headquarters personnel. Three primary programs provide conduit for engagement.

OFFICE OF COAST SURVEY (NOS)

MISSION: to provide navigation products and services that ensure safe and efficient maritime commerce on America's oceans, coastal waters, and in the Great Lakes.

RELEVANT PROGRAMS:

- Mapping and Charting
- Integrated Ocean and Coastal Mapping
- VDatum
- Maritime Services
- COASTAL

RELEVANT CAPABILITIES:

- Coordinates mapping in the U.S.
- provides baseline bathymetry data for coastal management
- Prepares and maintains 1,000 nautical charts
- Responds to disasters and other emergencies (e.g. to quickly re-open ports)
- Develops hydrodynamic models to support coastal management
- Provides data for oceanographic sciences
    - Essential fish habitat
    - Tsunami modeling
    - Coastal planning

PARTNERSHIP CONSIDERATIONS:

- Leveraging opportunities to fill mapping gaps
- Leveraging R&D opportunities
    - Coastal hydrodynamic modeling, including inundation
- Web Mapping Services/Mapping and charting data
- Provides technical assistance (e.g. Training, documentation, technical guidance)
- Has 13 regional contacts for assistance, in addition to NOAA headquarters personnel and offices in Seattle, WA and Norfolk, VA

INTEGRATED OCEAN AND COASTAL MAPPING (CROSS NOAA EFFORT, HOSTED IN NOS/OFFICE OF COAST SURVEY)

MISSION: "Map Once, Use Many Times" Plan, acquire, integrate, and disseminate ocean and coastal geospatial data and derivative products in a manner that permits easy access to and use by the greatest range of users.

RELEVANT PROGRAMS:

- NOAA IOCM Coordination Team: NOS, OAR, NESDIS, NMFS, OMAO
- NOAA R2R (Rolling Deck to Repository)
- Interagency Working Group on Ocean and Coastal Mapping (NOAA co-chair)

RELEVANT CAPABILITIES:

- Develop data standards (including metadata) for mapping community to promote multi-use of data
- Increase access to existing mapping data and planned surveys (developing prototype OCM Inventory, which will help facilitate cooperative mapping projects)
- Create products (DEMs) to meet user needs
- Support Collaboration (help identify opportunities and facilitate multi-party projects)

PARTNERSHIP CONSIDERATIONS:

- Opportunities to coordinate data collection to meet multiple needs ("NOAA Hydrographic Survey Priorities" document – updated annually, *OCM Inventory planned surveys*)
- State and region specific contacts for assistance (OCS Navigation Managers, NGS State Geodetic staff)
- IOCM Coordinator can serve as point of contact to NOAA mapping resources

U.S. INTEGRATED OCEAN OBSERVING SYSTEM (NOS)

MISSION: Providing the data and information needed to improve safety, enhance our economy, and protect our environment.

RELEVANT PROGRAMS:

- IOOS Regional Associations
- Ocean and coastal observations
- National High Frequency Radar Network
- Data management and distribution
- Modeling and analysis

RELEVANT CAPABILITIES:

- Technical expertise at regional and national levels – observations, data management, modeling and analysis
- IOOS *is* a partnership – brings together academia, government, industry, tribes, NGOs
- Regional structure with established stakeholders, develops products to meet identified regional priorities and needs
- Forum for interagency coordination and planning

PARTNERSHIP CONSIDERATIONS:

- Regular competitive funding to regional and functional associations coordinated through the National Oceanographic Partnership Program
- Opportunities for partnership at national level (IOOS Program) or regional level (11 Regional Associations)
- Geographic, thematic, and technical points of contact – at national and regional level

OFFICE OF NATIONAL MARINE SANCTUARIES (NOS)

http://sanctuaries.NOAA.gov/

MISSION: To serve as the trustee for the nation's system of marine protected areas, to conserve, protect, and enhance their biodiversity, ecological integrity and cultural legacy.

RELEVANT PROGRAMS:

- 14 marine protected areas ecopassing more than 150,000 square miles of marine and Great Lakes waters
- Includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument

RELEVANT CAPABILITIES:

- Directed collaboration, esp. within state and regional science, education, and management initiatives
- Joint Enforcement Agreements
- Platforms (vessels) for research, monitoring, and education
- “Mini grants” and other small source funding opportunities
- Teacher curricula, education evaluation, and other marine education and outreach tools

PARTNERSHIP CONSIDERATIONS:

- Provides grant and contracts in support of sanctuary-focused science, education, and management initiatives
- Has headquarters, regional, and site specific contact for providing assistance

OFFICE OF OCEAN & COASTAL RESOURCE MANAGEMENT (NOS)

MISSION: To lead the Nation's efforts to manage and conserve ocean and coastal resources.

RELEVANT PROGRAMS:

- National Coastal Management Program
- National Estuarine Research Reserve Program (NERRS)
- Coastal & Estuarine Land Conservation Program
- Coral Reef Conservation Program
- Marine Protected Areas Center

RELEVANT CAPABILITIES:

- Annual Funding to States and U.S. territories in support of national and state and site-specific priorities.
- Collaboratively develop and approve management plans and state enforceable policies, and provide direct assistance to state and site-based programs in implementing their approved plans.
- Coordinate the National Marine Protected Areas System, and map ocean uses in specific regions.
- Support collaboration on national and regional priorities through direct involvement in state and regional initiatives, organization of forums, and mediation of disputes between states and federal agencies.
- Provide technical assistance to U.S States and Territories by mobilizing NOAA scientific staff to address pressing coastal management issues, including land-based sources of pollution, climate change and resiliency, and impacts of fishing, among others.
- Provide a consistent and comprehensive national "backbone" for local and regional coastal and marine ecosystem monitoring programs.

PARTNERSHIP CONSIDERATIONS:

- Annual funding agreements – both competitive and non-competitive, for coastal management, land acquisition, coral conservation, and estuarine research, monitoring and education.
- Provides direct engagement and technical assistance based on alignment with NOAA and state/regional priorities
- Has state and region specific contacts for providing assistance, located both in NOAA HQ, and in some regions.

NATIONAL GEOPHYSICAL DATA CENTER (NESDIS)

http://www.ngdc.NOAA.gov/

MISSION: To provide long-term scientific data stewardship for the Nation's geophysical data, ensuring quality, integrity, and accessibility.

RELEVANT PROGRAMS (DATA SERVICES FOR):

- National Ocean Service – Hydrographic Surveys & COOPS
- National Weather Service – Tsunami: Data archive / DEM development
- NOAA Research – Ocean Exploration sonar & geological data
- National Marine Fisheries Service – Science Centers*
- U.S. Extended Continental Shelf Program
- U.S. Ocean and Coastal Mapping – UNOLS / NOAA R2R
- Various national and international data programs

RELEVANT CAPABILITIES:

- Archive and deliver data describing the seafloor and subsea surface (bathymetry, sidescan sonar, geology, geophysics, etc.)
- Expertise in developing integrated coastal digital elevation models at a variety of resolutions and datums
- Data management expertise (metadata, formats, web services, data integration)
- Support intra-Agency and inter-Agency ocean and coastal research, hazard mitigation, and mapping activities

PARTNERSHIP CONSIDERATIONS - NGDC PARTNERS WITH:

- NWS and OAR developing high-resolution digital elevation models (DEM) for tsunami forecast and modeling
- Coastal States and the National Tsunami Hazard Mitigation Program developing high-resolution DEMs for flood and evacuation planning
- NOS on use of NOAA VDatum for development of accurate, high-resolution coastal DEMs
- NOS on methods to build, archive, and access unstructured digital coastal elevation grids
- USGS on improved methods to integrate land topography with near-shore bathymetry

CENTER FOR SATELLITE APPLICATIONS AND RESEARCH (NESDIS)

http://www.star.nesdis.noaa.gov; POC: Paul.DiGiacomo@noaa.gov

MISSION: To accelerate the transfer of satellite observations of the land, atmosphere, ocean, and climate from scientific research and development into routine operations, and offer state-of-the-art data, products, and services to decision-makers.

RELEVANT PROGRAMS (SUPPORT FOR):

- National Ocean Service - harmful algal blooms; coral reefs; oil spills; coastal and marine spatial planning; water quality
- National Marine Fisheries Service – integrated ecosystem assessments
- National Weather Service –cyclones; ecological forecasts; air quality
- NOAA Research – ocean acidification; sea level; sea ice
- Various national and international coastal, ocean and Earth observing activities, including the Integrated Ocean Observing System (IOOS©)

RELEVANT CAPABILITIES:

- NOAA CoastWatch Program: http://coastwatch.noaa.gov/
- NOAA Coral Reef Watch: http://coralreefwatch.noaa.gov
- National Ice Center: http://www.natice.noaa.gov/
- STAR scientists lead efforts to develop, test, validate, and refine the science algorithms needed for user-defined, satellite-derived products (including sea surface temperature, ocean color, ocean surface vector winds, sea surface height, sea surface roughness, sea surface salinity).
- STAR research examines which products users will need - including ocean, ecosystem, climate, and weather - to carry out NOAA's goals.
- STAR collaboratively develops efficient methods and technology to transfer new products from research to operations, and investigates enhanced & new sensor technology for future NOAA satellite missions.

PARTNERSHIP CONSIDERATIONS - STAR PARTNERS WITH:

- NOAA Line Offices and regional users through the NOAA CoastWatch Program which has six regional nodes: East Coast, Great Lakes, Caribbean and Gulf of Mexico, Alaska, Central Pacific, and West Coast
- NOAA Coral Reef Conservation Program and regional users through the Coral Reef Watch Program

OFFICE OF HABITAT CONSERVATION (NMFS)

MISSION: To protect, restore, and promote stewardship of coastal and marine habitat to support our nation's fisheries for future generations.
Relevant Programs:

- Community-Based Restoration
- Rivers and Fish passage
- Essential Fish Habitat (EFH)
- Chesapeake Bay Executive Order
- Natural Resource Damage Assessment (NRDA)

Relevant Capabilities:

- Funding and technical guidance for restoration projects – including incorporating climate change into project design
- Consultations by regional staff on impacts to Essential Fish Habitat (EFH) and fish passage – including climate considerations
- Training and education: Regional climate workshops to build capacity of habitat managers
- Policy coordination: engaging in interagency efforts (e.g. National Ocean Policy, National Fish, Wildlife and Plant Climate Adaptation Strategy, Chesapeake Bay EO) – and ensuring habitat is considered in climate adaptation strategies

Partnership Considerations:

- Climate smart habitat conservation guidance documents available online
- Restoration project funding and technical assistance available through annual and multi-year grant opportunities *(several include a specific climate focus) – dependent on future budget levels*
- National Fish Habitat Action Plan - opportunities for regional habitat protection and restoration
- Regional habitat protection and restoration staff available for assistance
- More information available at: www.habitat.noaa.gov

CLIMATE PROGRAM OFFICE (OAR)

MISSION: Understanding climate variability and change to enhance society's ability to plan and respond.

Relevant Programs:

Climate and Societal Interactions Division

- Coastal and Ocean Climate Applications (COCA) Program
- Regional Integrated Sciences and Assessments (RISA)
- Sectoral Applications Research Program (SARP)
- National Integrated Drought Information System (NIDIS)

Relevant Capabilities:

- Annual funding opportunities focused on climate related decision support research, assessments, and climate services development activities in support of adaptation.
- Science and stakeholder engagement activities e.g. workshops, trainings, and capacity building
- Engagement in inter/intra agency efforts: National Climate Assessment, National Ocean Policy, NOAA Regional Collaboration Teams, etc.

Partnership Considerations:

- CSI Programs partner with many federal, state and tribal agencies/governments as well as non-governmental organizations, academia, and the private sector.