



### Applied Science for Informed Decisions







Rodney E. Cluck, Ph.D.

Chief, Division of Environmental Sciences
Executive Secretary of the Committee



### Applied Science for Informed Decisions





### **Mission:**

Provide the information needed to predict, assess, and manage impacts from offshore energy and marine mineral exploration, development, and production activities on human, marine, and coastal environments.



# **Authority and Scope**

- Initiated in 1973 to support the U.S. DOI offshore oil and gas leasing program.
- Statutory authorization derived primarily from the Outer Continental Shelf Lands Act (OCSLA) and Environmental Protection Act of 2005 which gave BOEM authority to regulate OCS Renewable energy projects.
- Section 20 of the OCSLA authorizes the ESP and establishes three general goals for the program...



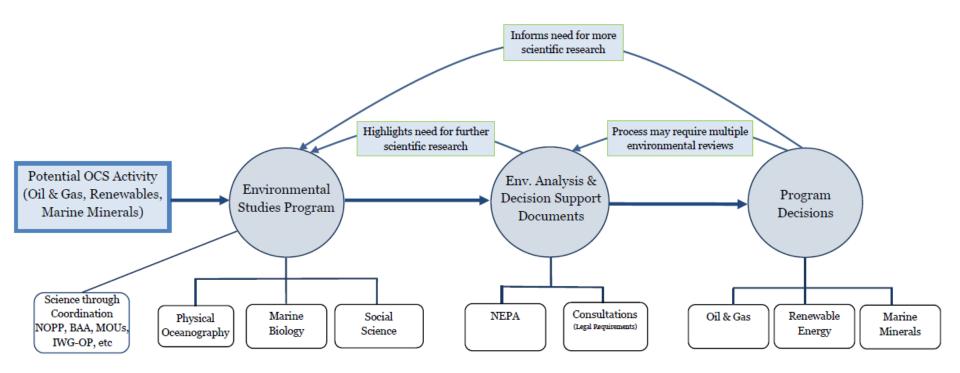
# **Program Goals**

- Establish the information needed for assessment and management of environmental impacts,
- Predict impacts on the marine biota; and,
- Monitor human, marine, and coastal environments.





# **Applied Science for Informed Decisions**







# Mitigation Effectiveness in Research Design Process

Each study adds new information.

The analysis produces new and better mitigation measures.

Each time the public is involved, they are educated further.

New Information Baseline

Determination of Research Needs

Analysis of Monitoring Proposed Study

Data Collection

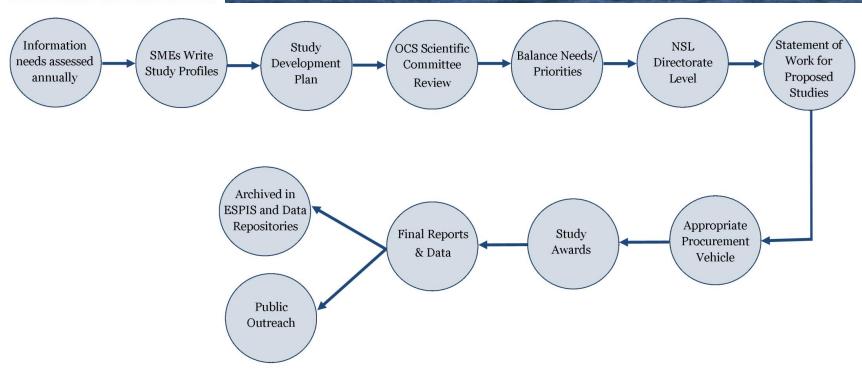
Analysis of Information

Identification of Mitigating Measures

Monitoring of Effects



### **ESP Process Flow**



BOEM Environmental Studies Program (ESP) is dynamic and flexible to the changing information requirements. New information needs routinely arise outside the annual planning process and in response proposed studies are often added/deleted. This schema is a simplified version of the program process and does not entirely capture its complexity and variability.





### **Program Funds Research Through...**

# Competitive Contracts

### Inter-Agency Agreements

Partnering NOPP; NOAA; ONR;

NASA; NSF; USGS; FWS; NPS;

DOE; etc.

## Cooperative Agreements

- Coastal Marine Institutes (CMI)
- Cooperative Ecosystem Studies Units (CESU)





### **Program Quality: Scientific Integrity**

- Federal Advisory Committee (FACA).
  - Annual Review of Studies Development Plans
  - Sub-committees
- Scientific Review Boards
- Collaboration with Federal Partners



### **ESP Information Sharing**

- Environmental Studies Program Information System (ESPIS)
- Multipurpose Marine Cadastre (MMC)
- BOEM Hosted Meetings & Workshops
- Participation and Sponsorship of Symposia and Conferences
- Professional Journal Publications
- BOEM Ocean Science
- Education and Outreach





# **Environmental Studies Program**Information System (ESPIS)

### **Current Capabilities:**

- Provides Access to Reports and Technical Summaries
- PDF documents over 3,300 to date. Nearly \$980M investment.
- Provides a Relatively Simple Search Capability

#### Query for ESPIS Attn: Documents are in Adobe PDF format. Some files may contain attachments and/or comments and are best viewed with Adobe Reader Version 7.0 or higher which can be downloaded from Adobe Reader The Bureau of Ocean Energy Management, Regulation and Enforcement strives to make all public data available as soon as it is releasable. If you do not find the data you are looking for, please check again the next business day since certain circumstances may delay the posting of data. We apologize for the inconvenience Data last updated on 4/25/2011 (CST) and will be updated when new ESPIS documents become available. Select Options Using the Checkboxes Click the Links for Help on Each Selection □ Technical Summary: Technical Summaries Only □ Publication Number: Contract Number Contractor: Air Quality □ Category: Report Title: ☐ Study Title: From: 2011 To: 2011 ☐ Year □ Author: Alaska Gulf of Mexico To: 5/10/2011 Date Uploaded: (MM/DD/YYYY) From: 5/10/2011 To: 5/10/2011 Updated Date: (MM/DD/YYYY) From: 5/10/2011 □ Text Search Publication Number -Sort Results by: Order: INCR -Results Per Page: Submit Query

Return to the Environmental Studies Program Information System



# **Environmental Studies Program Information System (ESPIS)**

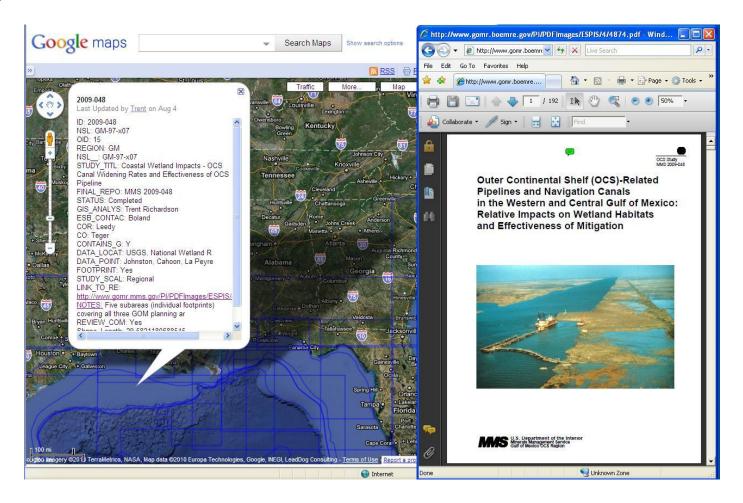
# How will ESPIS be Improved?

- Utilizing a document management system will add the ability to:
  - Store, retrieve, and search multiple media types
  - Create an interface for uploading and maintaining data
  - Enhance the ability to search the database
  - Create a report generating capability (By discipline, region, etc)
- Working on an Interagency Agreement with NOAA to enhance our data discovery in the Multipurpose Marine Cadastre (MMC)



### **Linking ESPIS and the MMC**

Create functionality for geospatial searches of environmental studies within the MMC





### **Strategic Program Direction**

- More Competitive Award Process
- More Outreach and Education Support
- Continue and Enhance Partnerships
- Mitigation Effectiveness in Research Design



# **Competitive Cooperative Agreements**

- Supporting a Broader Range of Researchers
- Addressing Mission Relevant Research While Taking Full Advantage of Resources and Benefiting Public Interest
- Increase Visibility of the Program Mission
- Increase Credibility of Applied Science



#### **ESP Outreach Activities**

- Ocean Literacy USA Science & Technology Festival
- Public Affairs Collaboration
- Continued Support: National Ocean Science Bowl
- Interagency Working Group on Ocean Education
- Discussing Partnership with Center for Ocean Science Education Excellence (COSEE) Meeting June 19



#### Partnering and Leveraging Resources: **Good Government**



# **Nearly 40 years of Applied Environmental Research**

### Partnering, Partnering, Partnering

### Making the best use of our resources















Ocean Partnerships





























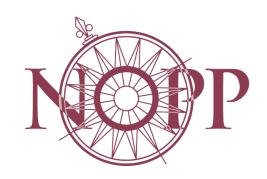


Coastal  ${f M}$ arine Institute



### **National Oceanographic Partnership Program**

Long-term interagency, inter-sector collaboration motivated by common needs



# The NOPP Approach

Identify areas of ocean science research and education that are important to two or more funding entities and that would most benefit from a partnership approach

# Value Proposition

Working together achieves more, and does so more efficiently, than working alone



### **NOPP** Legislation

# The 1997 Defense Authorization Act (Public Law 104-201) established the National Oceanographic Partnership Program (NOPP) for two purposes:

- 1 To promote national goals of assuring national security, advancing economic development, protecting quality of life, and strengthening science education and communication through improved knowledge of the ocean; and
- 2 To coordinate and strengthen oceanographic efforts in support of those goals by:
  - a) Identifying and carrying out partnerships among federal agencies, academia, industry, and other members of the oceanographic scientific community in the areas of data, resources, education, and communication, and

b) Reporting annually to Congress on the Program.



### **Inter-agency Working Group on** Ocean Partnerships (IWG-OP)

### **Current IWG-OP Participants**

DoC: NOAA

DoD: USACE/ONR/U.S.

Navy

DoE: Office of Science

DHS: USCG

Dol: BOEM/USGS

**EPA** 

NASA

NSF

**MMC** 

SI



The purpose of the IWG-OP is to advise and assist the OST-IPC on matters related to ocean partnership programs:

- Extramural funding of research partnerships
- Interagency and intergovernmental collaborations involving shared resources

The IWG-OP focuses on those objectives felt to be too big for any single agency, which cut across multiple missions, or require government-private-academic partnerships for success.



### **Collaboration Examples**

- 1. Multi-topic Renewable Energy BAA (BOEM, DOE and NOAA)
- Exploration and Research of Northern Gulf of Mexico Deepwater Natural and Artificial Hard Bottom Habitats with Emphasis on Coral Communities: Reefs, Rigs, and Wrecks (BOEM, NOAA OE, USGS)
- 3. Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities (BOEM, NOAA)

A core principle in NOPP collaborations has been crosssector researcher partnerships and multiple agency funding partnerships.





### **Summary**

- 1. Outreach/Education
- 2. Science Dissemination
- 3. Partnering
- 4. Mitigation Effectiveness in Research Design
- Ensuring a Robust Process for Science basedDecisions and Addressing Mission Objectives