Uses of DWH Long-term Data
June 7, 2017
DWH Long-term Data Management Workshop
Matt Love, Ocean Conservancy

DWH Project Tracker

Deepwater Horizon Projects - FY (2017)
- Environmental
- Human and Social
- Restoration/Use
- Science
A DECADE OF DISCOVERY

- 2,700 scientists
- 80+ nations
- 540 expeditions
- US$ 650 million
- 2,600+ scientific publications
- 6,000+ potential new species
- 30 million distribution records and counting

Environmental Information System

Data Management
- Infrastructure

Data Generation
- Monitoring
- Observation

Data Use
- Research
- Response
- Restoration
- Management

Photo credits: Jesse Cellonimo
Response

Data needs:
• Common Operational Picture
• Decision Support

Use examples
- Coast Guard Search & Rescue
- Oil Spill Response
- Wildlife Rescue/rehab
Restoration

Data needs:
• Ecosystem function → Multiple Scales
• Decision support

Use examples
- Identify Restoration Need
- Project Level Assessment
  - Ecosystem Scale Evaluation

DWH Restoration

Scale of Restoration = Scale of Injury
• Collaboration: Data managers + Data generators + Research + Restoration/Management
• Integration of data types from many sources
• Ecosystem scale modeling

Louisiana Coastal Master Plan Predictive Models
Research

Data needs:
• Data Discoverability
• Data Access

Use examples
- System-wide Status & Trends
- Ecosystem Scale Evaluation

Enhanced Data Applications
• Analytics & Decision Support Tools
• Ecosystem-based Fisheries Management
• Challenges: Data compilation

Photo credits: NOAA ORR.
Communication With Data

• Derived Data Products - Information Synthesis

EVOS Trustee Council
Injured Species List

Recovered
Recovering
Very Likely Recovered
Not Recovering
Recovery Unknown

Goals
Food Provision
Artisanal Fishing Opportunities
Natural Products
Carbon Storage
Coastal Protection
Coastal Livelihoods & Economies
Tourism & Recreation
Sense of Place
Clean Waters
Biodiversity

Foundations in Monitoring

• 20 year program initiated 2012
• Consistent scientific data to detect ecosystem change

Ecosystem Monitoring Foundation
• Environmental Drivers
• Nearshore Ecosystems
• Pelagic Ecosystems
• Lingering Oil

Data Users
Management Agencies
Scientific Research Community
General Public
Data Value Increases With Use

- Every observation is an investment in our understanding
- Collaborative science is the new norm
- Era of defunding science
- We can no longer afford loss of data
Long-term Vision – 15+ years

- Gulf restoration is an opportunity in collaboration
- Successful restoration and management based on science requires open, accessible data
- Need to consider uses of data beyond direct application
- Innovation in science and management requires an integrated information infrastructure

Discussion Questions

1. What are key constraints or considerations in effectively engaging users in the development of data products?
2. Do you agree with the data users and uses described in this presentation? What types of users do we have at this workshop?