



Comments and Recommendations on the NOAA RESTORE Act Science Program Draft Science Plan

A Presentation to the NOAA Science Advisory Board

On behalf of the

Gulf Coast Ecosystem Restoration Science Program Advisory Working Group

29 July 2014



Outline



- Working Group Members
- Purpose
- Process
- Overarching Recommendations
- General Recommendations and Suggested Revisions
- Final Comments
- Desired Outcome
- Acknowledgements



Working Group Members



PORTER, Dwayne E. (Co-Chair)

Chair

University of South Carolina

DICKEY, Robert W. (Co-Chair)

Director

The University of Texas at Austin

BOYER, Joseph N.

Director and Professor

Plymouth State University

D'ELIA, Christopher F.

Dean and Professor

Louisiana State University

DODGE, Richard E.

Dean

Nova Southeastern University

FURUKAWA, Yoko

Section Head, Supervisory Geologist

Naval Research Laboratory

GLENN, Scott M.

Professor

Rutgers University

MILLER, Thomas E.

Professor

Florida State University

MILLER, Thomas J.

Director

Chesapeake Biological Laboratory

RABALAIS, Nancy N.

Executive Director and Professor

Louisiana Universities Marine

Consortium

REDDY, Christopher M.

Senior Scientist

Woods Hole Oceanographic Institution

SCHNIER, Kurt E.

Professor of Economics

University of California, Merced

SHEPARD, Christine C.

Director of Science

The Nature Conservancy

YOCHEM, Pamela K.

Executive Vice President

Hubbs-Sea World Research Institute

ZIMBA, Paul V.

Director and Professor

Texas A&M University - Corpus Christi

RESTER, Jeffrey

Habitat and SEAMAP Coordinator

Gulf States Marine Fisheries

Commission

WALSER, Maggie L.

Senior Program Officer

National Academy of Sciences

WILSON, Charles A. ("Chuck")

Chief Science Officer

Gulf of Mexico Research Initiative



Purpose



The purpose of the RSPAWG is to ...

- Provide independent guidance and review of the Gulf Coast Ecosystem Restoration Science Program along with general programmatic advice and recommendations.
- The RSPAWG will also provide a mechanism for formal coordination between the multiple organizations conducting RESTORE related science within the Gulf of Mexico.



Purpose



The initial charge to the RSPAWG and purpose of this briefing is ...

- Review the first draft of the NOAA RESTORE Act Science Program's Science Plan.
- Submit initial review comments and recommendations to the NOAA SAB.



Process



The stated Goals of the Science Plan are:

Support the science necessary for better understanding and management of the Gulf of Mexico ecosystem, specifically:

- Healthy, diverse, sustainable, and resilient estuarine, coastal and marine habitats.
- Healthy, diverse, sustainable, and resilient coastal and marine resources, including fisheries.
- Resilient and adaptive coastal communities.

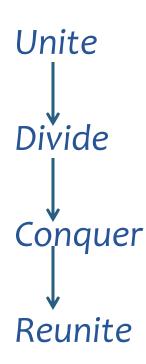


Process



The process implemented and adhered to by the RSPAWG was as follows:

Activity	Who is responsible?	How will they do it?	Due date
Co-Chair assignment: Provide a balanced	Bob Dickey	they do it.	6/20
perspective to the compilation of the information	Doo Dickey		0/20
Establish Focus Area Teams	All working group	At in-person	6/19
Localization Total Tellino	members	meeting	
Create a revised draft Science Plan tool for	Anna Hermes,	Email and	To full WG
Focus Area Team's proposed changes.	Ann Weaver,	phone	by 6/25
	Marian Hanisko	1	1
Additional comments provided to Focus Area	All working group		To Focus
Teams (below)	members		Area teams
			by 6/30
Form 4-two person Focus Area Writing Teams,	Focus Area 1 –	Write the	To Dwayne
one for each Focus Area and with one person	Thomas Miller	focus area in	Porter, Bob
from each break-out group.	Nancy Rabalais	pairs	Dickey, and
	Focus Area 2 -	I	the
Focus Area teams will revise the draft Science	Jeff Rester	1	Overview
Plan tool for their assigned Focus Area,	Paul Zimba	1	Team
incorporating changes from the draft tools and	Focus Area 3 –	1	(below) by
any additional comments received by WG	Yoko Furukawa	1	7/3
members.	Pamela Yochem	1	
T . A . A	Focus Area 4 –	1	l
Focus Area teams will provide a description of	Joe Boyer		
line-by-line changes. Form Overview Team to draft the Overview to	Dick Dodge Overview Team		To Dwayne
the recommendations, including over-arching	Chris D'Elia	1	Porter and
the recommendations, including over-arching themes	Christine Shepard	1	Bob Dickey
memes.	Maggie Walser		by 7/14
Compile revisions and all writing team input and	Dwayne Porter		To full WG
send to entire RSPAWG for additional	and Bob Dickey	1	by 7/14
comments	and Boo Dickey	1	oy //14
RSPAWG sends additional comments to co-	All working group		To Porter
chairs for assimilation	members	1	and Dickey
		1	by 7/17
RSPAWG teleconference to discuss how the	All working group	Group call	7/18
Science Plan priorities should be organized.	members		
Marked up Science Plan tool provided to SAB	Dwayne Porter		7/22 or
Office	and Bob Dickey	<u> </u>	earlier
Overview, recommendations, and line-by-line	Dwayne Porter	Cut and	7/22 or
changes for the SAB to the SAB Office	and Bob Dickey	paste	earlier
		comments	
Presentation slides for the SAB presentation	Dwayne Porter		7/22 or
	and Bob Dickey		earlier







Overarching comments and recommendations on the draft Science Plan include:

- Goals of the Plan need to be stated upfront.
- Plan was too focused on management.
- Plan was too focused and/or specific (e.g. focus on MPAs and TEDs).
- Plan did not adequately address the role of science in informing management decisions.





Overarching comments and recommendations...:

 Focus of the Plan should be on the identification and articulation of the science needs in support of informing management for improved decision making.

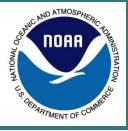




Overarching comments and recommendations...:

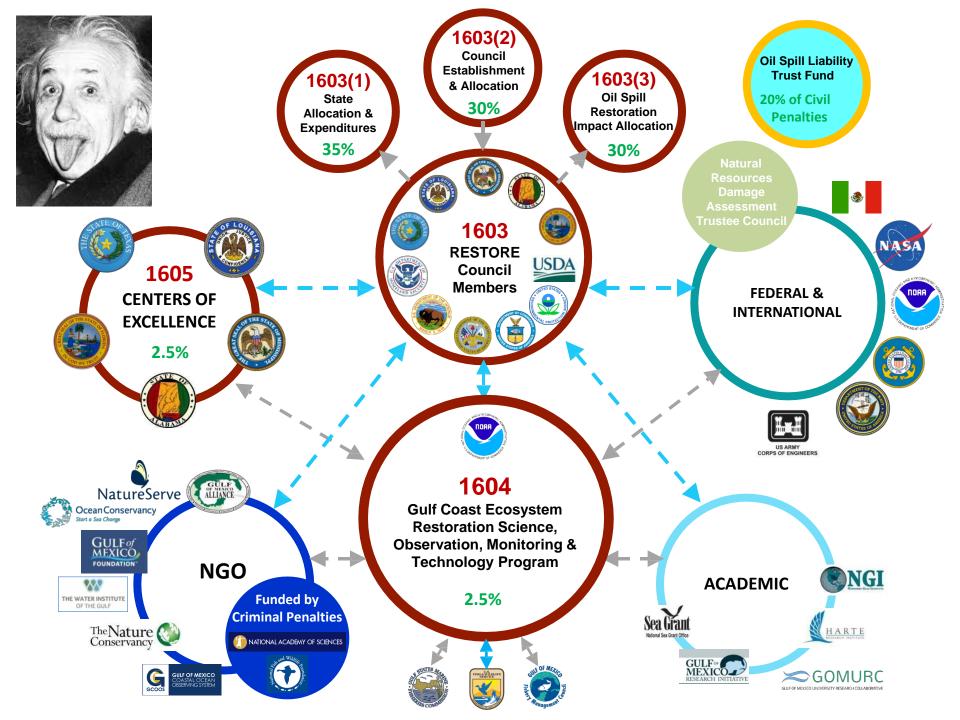
• Plan should address the higher-level science needs for the entire GoM region including waters of the GoM, watersheds impacting the GoM, and interconnected processes within the GOM and adjacent waterbodies and uplands (e.g. the Florida Loop Current).



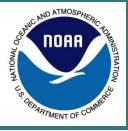


Overarching comments and recommendations...:

- In addition to funding levels, a crosswalk between RESTORE Act elements 1603, 1604 and 1605 is critical, because there are many programs involved in Gulf of Mexico research, monitoring and recovery.
- A crosswalk would help identify gaps and reduce redundancies which could help with research prioritization.



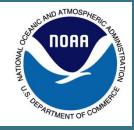




Overarching comments and recommendations...:

- The prioritization of Long-term Science Priorities is the responsibility of NOAA.
- Prioritization must take in to consideration the current status of the science, the need for the science to support management decisions, and the availability of funds.





Recommendations for realignments of Focus Areas and associated Science Priorities include:

- Working Group does not recommend any major overhauls to draft Science Priorities
- Working Group does recommend specific tweaking of several draft Priorities (i.e.

Priority: Forecasting, analysis and modeling...

to be merged with

Priority: Construct accurate, actionable and accessible ecosystem models ...

to form

Priority: Model weather and climate change effects on health, sustainability and resiliency of Gulf ecosystems.)



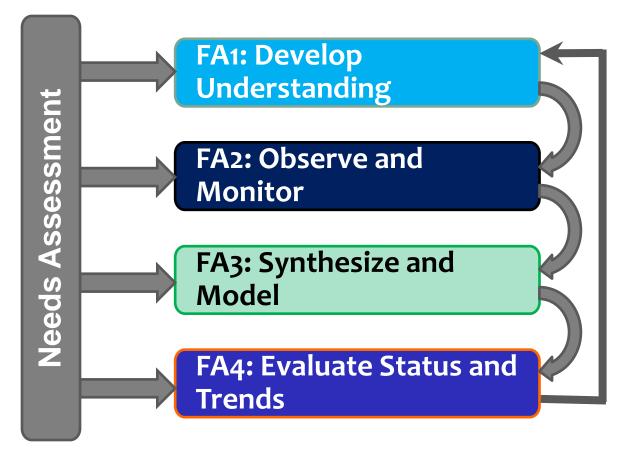


Recommendations for realignments of Focus Areas and associated Science Priorities include:

 Recognize that all Focus Areas are equal in importance but initial focus is dependent upon the "where" and "what" of science.



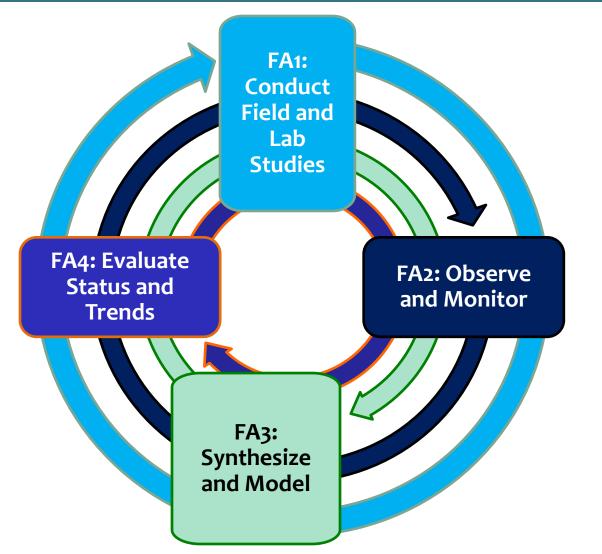




Logical and linear progression of Focus Areas and associated Longterm Science **Priorities** (Graphic courtesy of A. Hermes).







Circular representation of hypothesisdriven science where entry is dependent upon "what" and "where" (Graphic courtesy of A. Hermes).





Recommendations for realignments of Focus Areas and associated Science Priorities include:

- Focus Area 1: Ecosystem structure, function and connectivity through integrated field and laboratory studies.
 - Priority 1.1 Increase comprehensive understanding of living marine resource life histories, food web dynamics, and habitat utilization.
 - Priority 1.2 Increase comprehensive understanding of watershed, sediment, and nutrient impacts on coastal ecology and habitats.

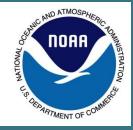




Recommendations for ...:

- Focus Area 2: Comprehensive monitoring and observation of marine resources.
 - Priority 2.1 Develop and implement advanced physical, chemical and biological technologies to improve monitoring and observations.
 - Priority 2.2 Network and integrate newly created and existing Gulf monitoring projects, programs and systems.





Recommendations for ...:

- Focus Area 3: Interdependency of human socioeconomics and coastal ocean ecosystems.
 - Priority 3.1 Create accessible data framework for social and environmental data query, analysis and synthesis.
 - Priority 3.2 Model weather and climate change effects on health, sustainability and resiliency of Gulf ecosystems.



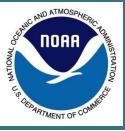


Recommendations for ...:

- •Focus Area 4: Status and trends of socioeconomic and environmental health, sustainability and resiliency.
 - •Priority 4.1 Increase comprehensive understanding of Gulf ecosystem services and vulnerabilities.
 - •Priority 4.2 Validate system-wide indicators of Gulf coast environmental and socioeconomic conditions.
 - •Priority 4.3 Map and monitor demographic, socioeconomic and environmental health status and trends to inform management practices.



Final Comments



To reiterate key recommendations:

- Science Plan should address science in support of improved understanding and decision making.
- Science Plan must take in to consideration funding constraints in the prioritization of research.
- Developing a strategy to ensure interaction and communication with all partners in the GoM is critical.

And finally ...

 NOAA RESTORE Act Science Program members should be applauded for their initial efforts on the Science Plan!



Desired Outcome



 Pending SAB-requested modifications, approve and submit to NOAA RSPAWG report entitled:

COMMENTS AND RECOMMENDATIONS ON THE NOAA RESTORE ACT SCIENCE PROGRAM DRAFT SCIENCE PLAN



Acknowledgements



- NOAA Science Advisory Board liaisons: Jean May-Brett, Michael Donahue
- NOAA Science Advisory Board Office: Cynthia Decker, Mary Anne Whitcomb, Anna Hermes
- NOAA RESTORE Act Science Program: Mary Erickson, Steve Fine, Russ Beard, Becky Allee, Julien Lartigue, Sean Meehan
- Meeting facilitators: Ann Weaver, Marian Hanisko, Angela Salis