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NOAA's RESTORE Act Science Program

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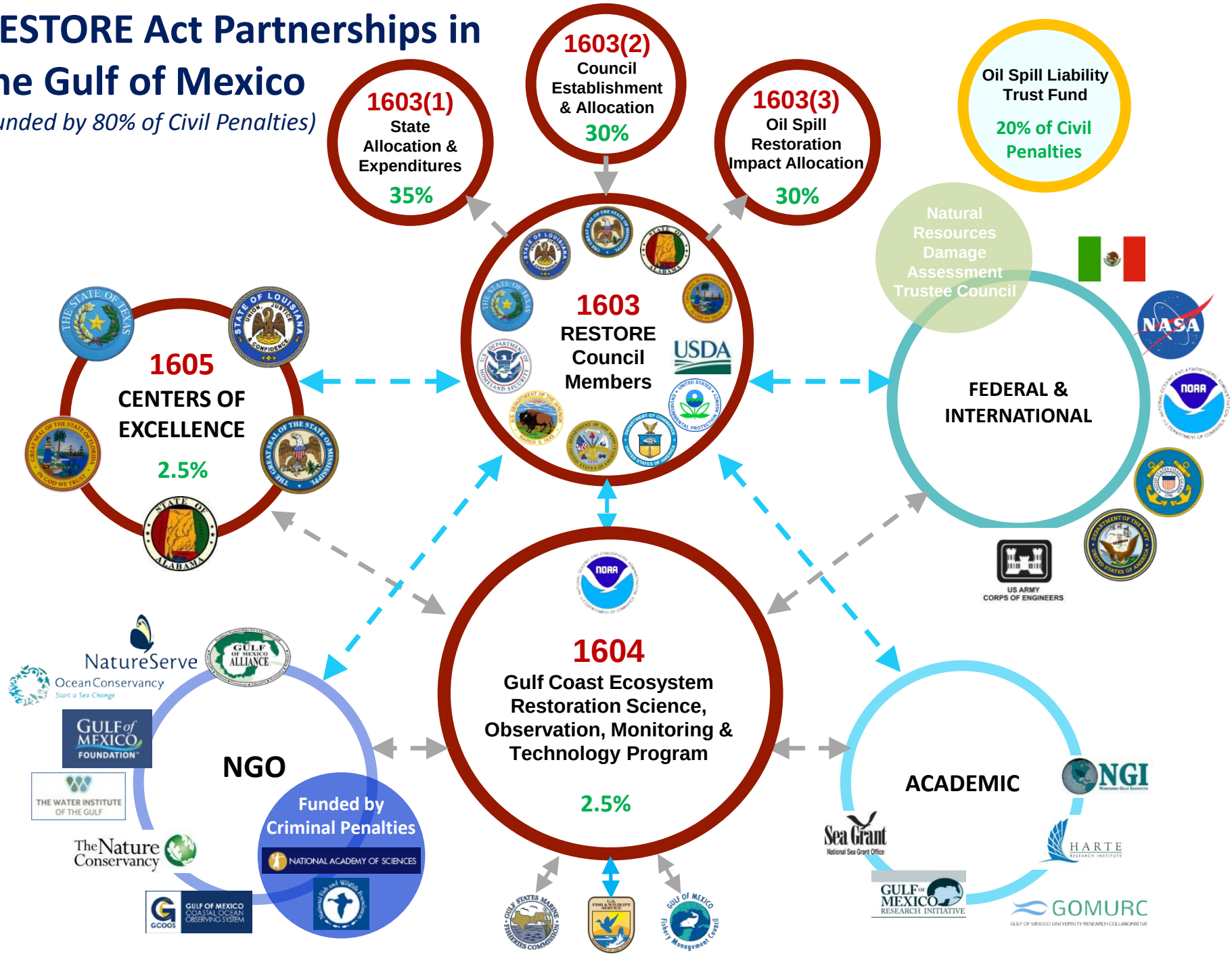
RESTORE Act Partnerships in the Gulf of Mexico

(Funded by 80% of Civil Penalties)



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What is the Program

- **RESTORE Act of 2012**
  - **Section 1604 authorizes NOAA to establish a Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program (NOAA RESTORE Act Science Program)**

"…to carry out research, observation, and monitoring to support, to the maximum extent practicable, the long-term sustainability of the ecosystem, fish stocks, fish habitat, and the recreational, commercial, and charter fishing industry in the Gulf of Mexico."

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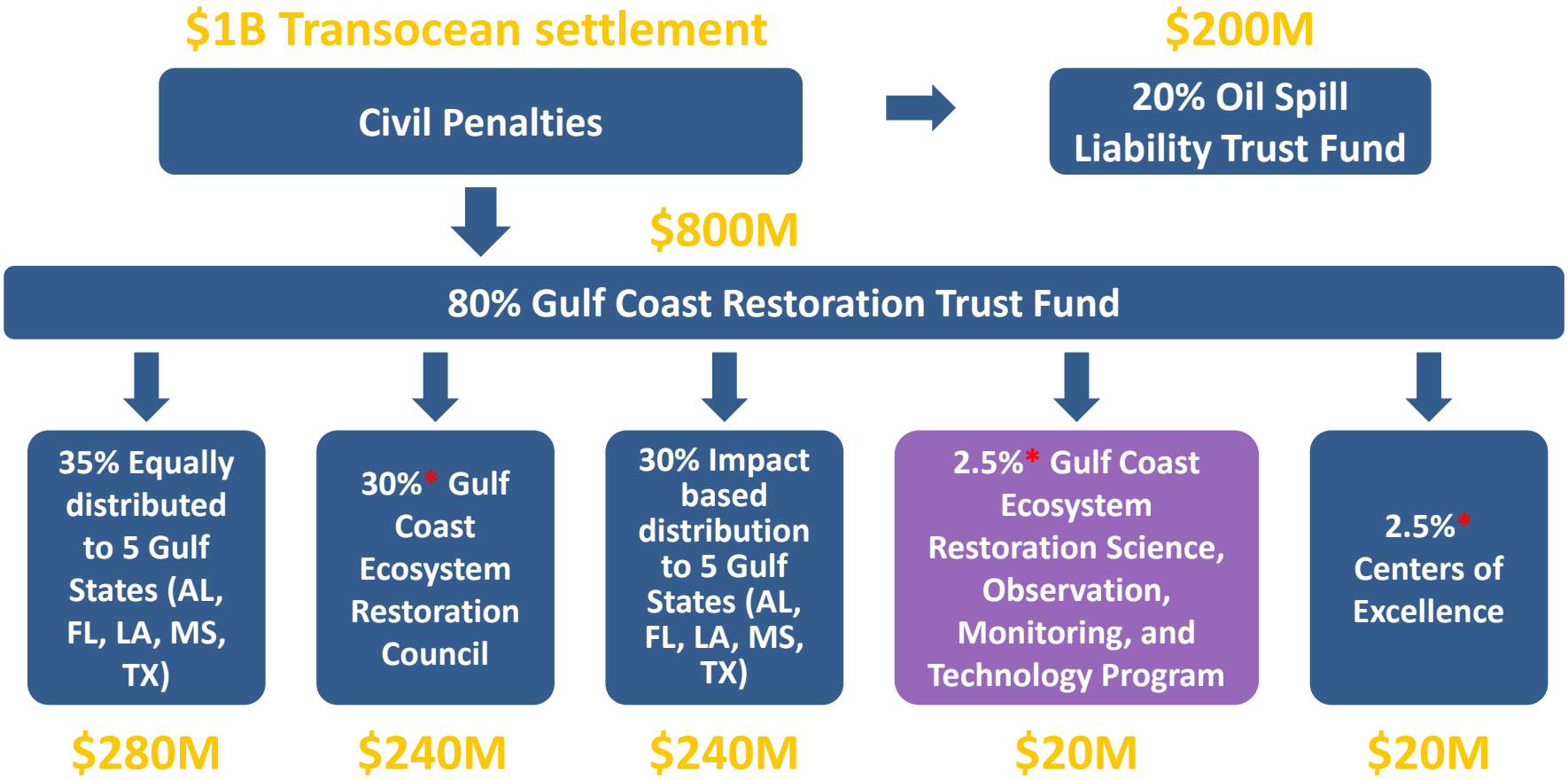
Distribution of Clean Water Act Civil Penalties per the RESTORE Act

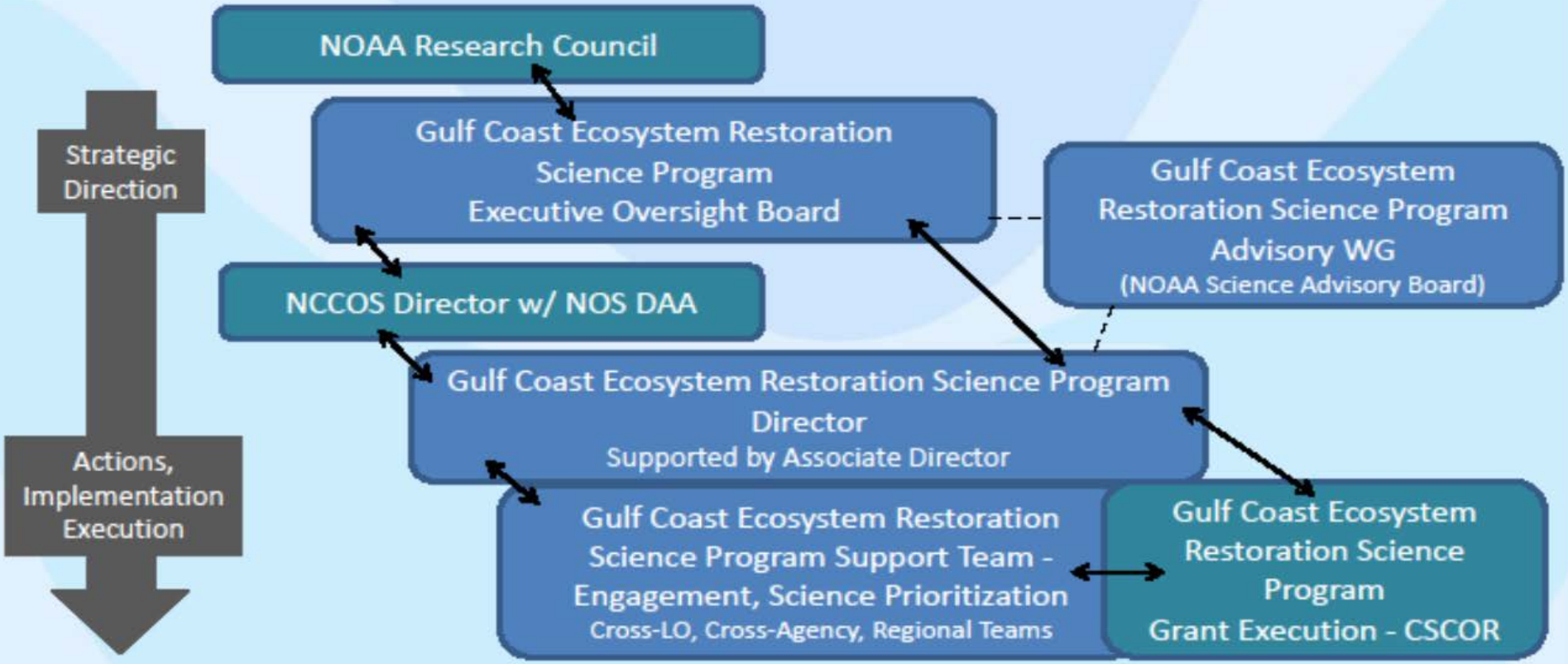


*Supplemented by interest generated by the Gulf Coast Restoration Trust Fund

Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program

(RESTORE Act Science Program)

Planning and Execution Organizational Structure



Color Key:

NOAA Infrastructure Support

RESTORE Act Science Program Structures

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Short-term Priorites

- Comprehensive inventory and assessment (i.e., strengths/weaknesses) of ongoing ecosystem modeling efforts (conceptual and quantitative);

- Identification of currently available health/condition indicators of Gulf of Mexico ecosystem components, including humans, followed by comparative analysis of strengths and weaknesses and design/testing of additional indicators;

- Assessment of monitoring and observation needs and development of recommendations to build off existing assets to establish a Gulf wide monitoring and observation network

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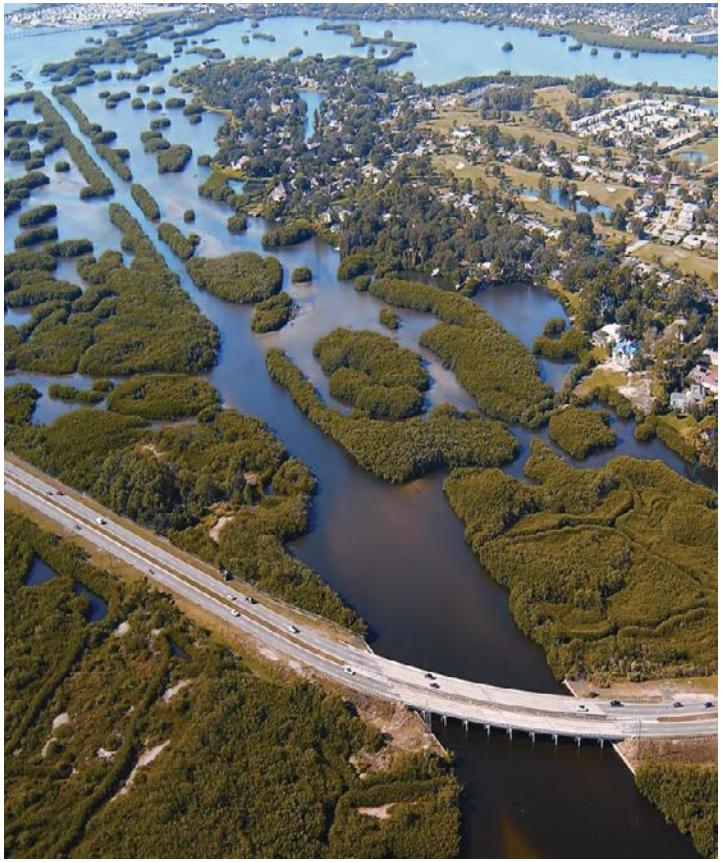
Goals

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.



Periodic state of health assessments

Priorities

- Develop a better understanding of ecosystem services and other determinants of resilience for coupled social and ecological systems.
- Identify or develop state of health indicators for the Gulf of Mexico ecosystem, including the socio-economic component.

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Focus Areas

“Ecosystem processes, functioning and connectivity” through integrative field and laboratory studies

“Holistic approaches to observing & monitoring” with advanced technologies to monitor fisheries & other natural resources, & data integration tools focused on the observing needs in the Gulf

“Integrated analysis and synthesis of existing and new data” to advance the state of ecological knowledge through the search for patterns and principles

“Periodic State of Health Assessments”, incorporating environmental, socio-economic, & human well-being benefits & elements

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Ecosystem processes, functioning and connectivity

Priorities

- Forecasting, analysis and modeling of climate change and weather effects on the sustainability and resiliency of Gulf ecosystems.
- Construct accurate, actionable and accessible ecosystem models for the Gulf of Mexico.
- Quantify sediment, nutrients, contaminants, and water flow interrelationships, variability and consequent impacts to health and function of coastal habitats.
- Provide a more comprehensive understanding of life histories of living marine resources, food web dynamics, and habitat utilization as guidance for living marine resources management.

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Integrated analysis and synthesis of existing and new data

Priorities

- Collect information and develop decision support tools needed to implement, monitor and adaptively manage habitat including marine protected areas.

- Create an integrative, unified, and easily accessible data framework that tabulates, synthesizes and provides opportunity for analysis of new and existing social and environmental data in order to develop long-term trend information.

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Holistic approaches to observing and monitoring

Priorities

- Coordinate and integrate existing Gulf monitoring to develop a network of monitoring systems including fisheries dependent and independent data collection.

- Develop and implement advanced engineering, tagging and biological technologies to improve monitoring.

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Program Action

Dec	• Released Framework document on website
Jan	• Initiated science plan scoping and NEPA process (programmatic environmental assessment; PEA)
Jan – Mar	• Continue stakeholder engagement sessions
Mar – Apr	• Science Advisory Board (SAB) working group orientation and discussion
May – June	• Release of initial FFO (tentative) based on short-term priorities
June	• Review of draft science plan by Executive Oversight Board and SAB working group
July	• Release of science plan and PEA for public comment
Jul – Aug	• Additional engagement sessions on science plan
Sept	• Release final science plan and PEA

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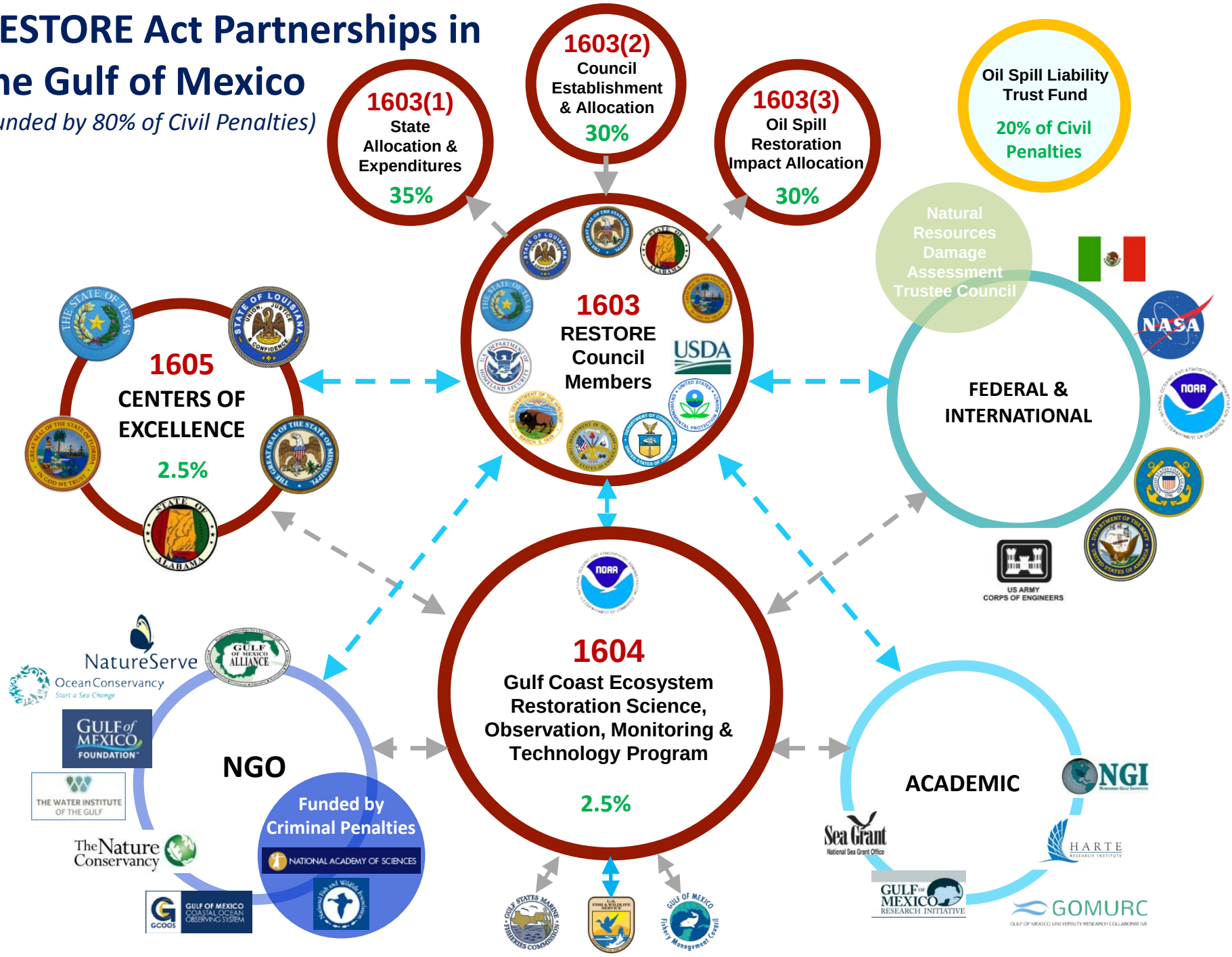

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Dr. Gabriela Chavarria, USFWS

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Partnering and Leveraging Resources

Forty years of Applied Environmental Research

Partnering, Partnering, Partnering

Making the best use of our resources

Subcommittee on Ocean Science and Technology Interagency Working Group on Ocean Partnerships

Smithsonian Institution

National Oceanographic Partnership Program

Coastal Marine Institute