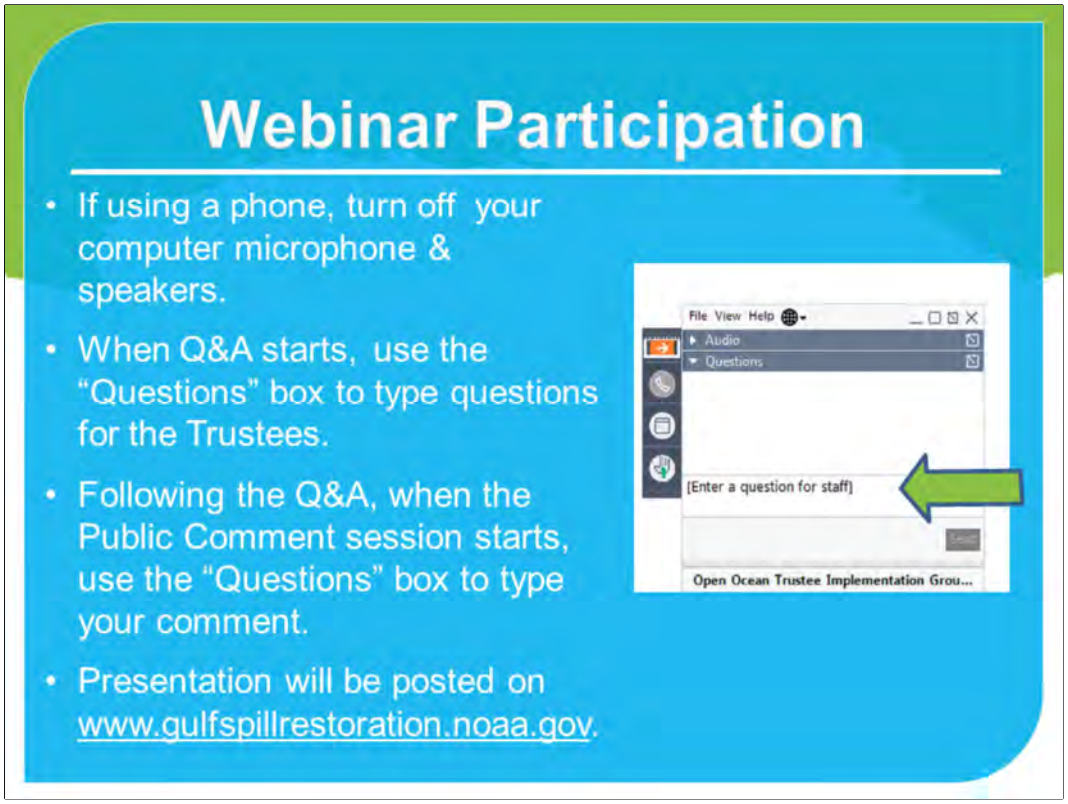
Welcome to the public webinar for the Open Ocean Trustee Implementation Group Draft Restoration Plan 2 and Environmental Assessment for Fish, Sea Turtles, Marine Mammals, and Mesophotic and Deep Benthic Communities.

Today/tonight we have the Open Ocean Trustees, subject matter experts, and other staff participating. My name is Laurie Rounds and I'm NOAA's representative for the Open Ocean Trustee Implementation Group. Our other speakers will introduce themselves during the webinar.



Before we begin the webinar, Mindy Joiner with the firm Moffatt & Nichol, will quickly run through some webinar logistics with you.

Hopefully everyone's logged in to the webinar by now. You should be able to see the control panel on the right hand side of your screen. If you can't see the control panel, please click the orange arrow to show the control panel.

If you're using a phone for audio, you should all be dialing in using the phone number provided by GoToWebinar—that's the number and access code listed under "Audio" in the control panel. Please note that only presenters will be heard over the phone during the webinar; attendees will be muted.

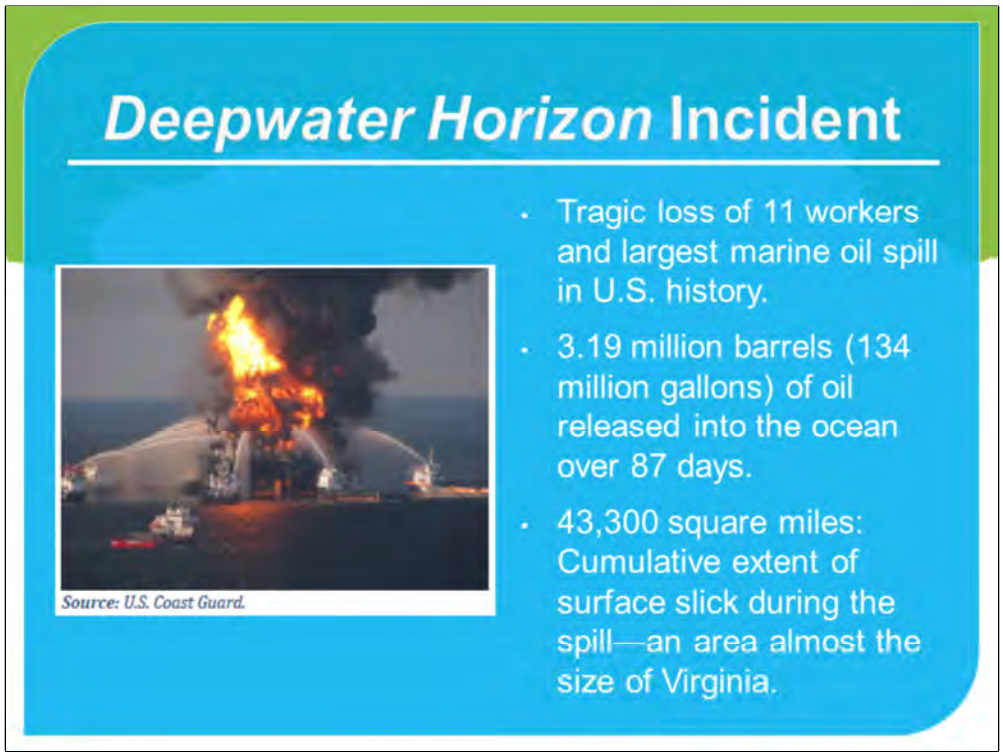
Take a look at the "Questions" box at the bottom of the control panel (shown on this slide). If you have questions about the presentation along the way, please enter those in the "Questions" box. After our presentation, we'll answer as many questions as we can in the time allotted. You'll also have an opportunity to submit comments on the draft restoration plan, but please hold these until the allotted public comment period, which will be announced after the questions session.

We'll also post the presentation to the GulfSpillRestoration.noaa.gov website in a few days.

Now back to Laurie to go through our agenda for today.

Thank you Mindy. The purpose of this presentation is to provide information about the Open Ocean Trustee Implementation Group's Draft Restoration Plan 2 and Environmental Assessment.

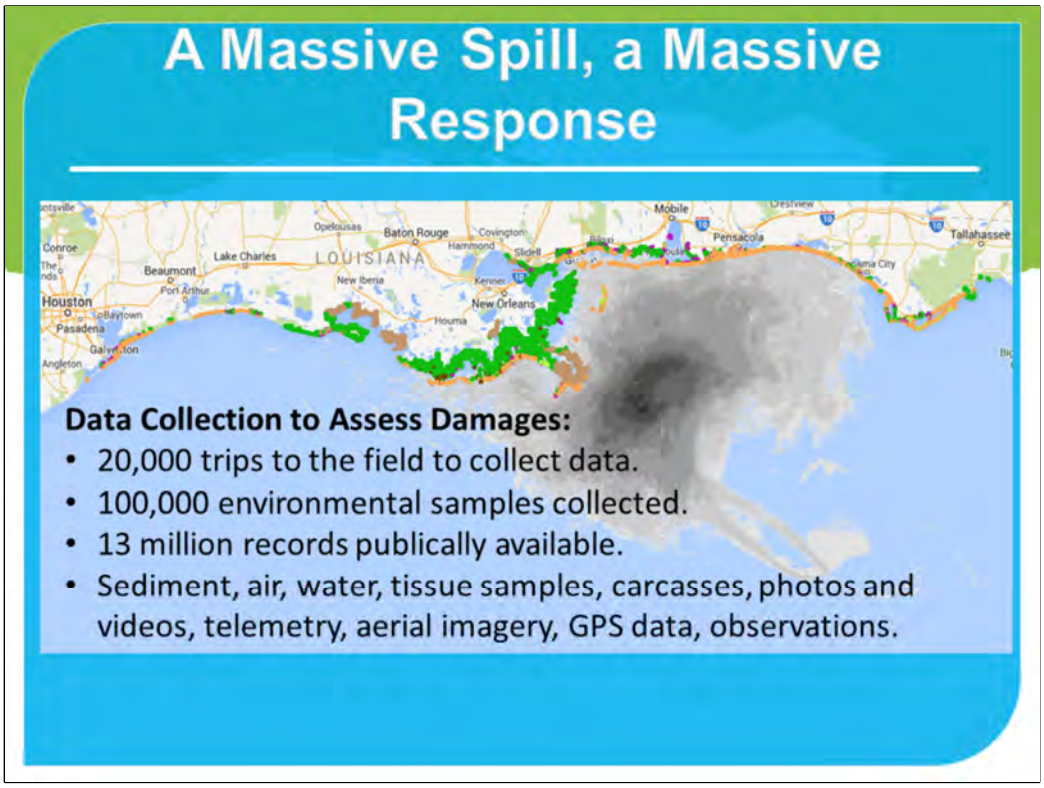
Today/tonight we'll provide brief overviews of the Natural Resource Damage Assessment and settlement with BP, the Trustees' programmatic restoration plan and the Open Ocean Trustee Implementation Group. We will also provide an overview of the Draft Restoration Plan 2 and the restoration project proposed, reserving time for questions and formal comments using the webinar tools. Then we'll close with describing the next steps in the restoration planning process.



The Deepwater Horizon oil spill was the largest offshore marine oil spill in U.S. history, spilling 12 times more oil by volume than the 1989 Exxon-Valdez spill. Every day, beginning on April 20, 2010, for 87 days, BP's Macondo well released an average of more than 1.5 million gallons of oil into the Gulf of Mexico.

Oil slicks were observed across an area measuring over 43,000 square miles—an area roughly the same size as the state of Virginia

Oil spread from the deep ocean to the surface and nearshore environment, washing up onto more than 1,300 miles of Gulf shoreline



Assessing natural resource injuries from the oil spill required more than 20,000 trips to the field for collection of over 100,000 environmental samples. All of this effort was conducted in accordance with the Oil Pollution Act, which establishes the role of Federal and state natural resource trustees to respond to and assess injuries caused by oil spills.

In the open waters of the Gulf of Mexico, the oil came into contact with deep-sea corals, many species of fish, endangered sea turtles, dolphins, whales, and other protected marine life. The spill also injured the less visible biological communities that live in the water column such as plankton, larval fish, and invertebrates such as squid and shrimp among others that play important ecological roles in the marine food web.

The Oil Pollution Act makes the parties responsible for an oil spill liable for the costs of response, injury assessment, and restoration needed to compensate the public for damages to natural resources.

Under the Oil Pollution Act (OPA), a council of federal and state "trustees" was established soon after the Deepwater Horizon oil spill to assess the natural resource injuries, and develop and implement plans for restoring the natural resources that were damaged. This process is referred to as Natural Resource Damage Assessment (NRDA).

The Deepwater Horizon Trustees are the federal Department of Interior, National Oceanic and Atmospheric Administration, US Environmental Protection Agency, and US Department of Agriculture and state agencies for each Gulf State.

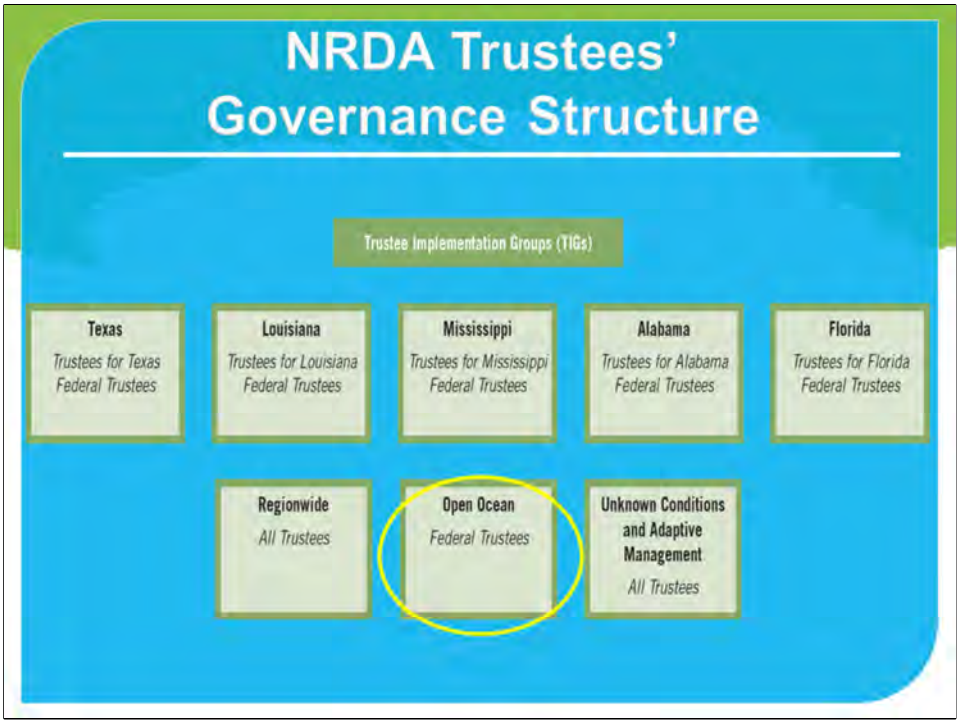
As part of the Natural Resource Damage Assessment, the Trustees developed the programmatic damage assessment and restoration plan. The plan documents the natural resource injuries caused by the spill and concludes that the scale of the injury is so massive, that an ecosystem approach to restoration is needed.

The Trustees' plan is called a "programmatic plan" because, rather than identifying individual projects, it identifies goals, restoration types and restoration approaches to achieve the trustees' ecosystem approach to restoration that set the course for more detailed, project-level planning.

In addition, the plan provides a framework for how the trustees will implement restoration and work together to achieve our long-term goals.

In 2016, the trustees reached a settlement of $8.8 billion to resolve BP's liability for natural resource injuries caused by the Deepwater Horizon oil spill. This amount includes $1 billion dollars committed for early restoration conducted by the trustees prior to the settlement.

The settlement provided for incremental payments over the course of 15 years – the first payment was made in 2017. Based on the kind and extent of injuries caused by the spill, the $8.8 billion was allocated among the Trustees' five broad restoration goals as indicated in the slide and up to $700 million was reserved to respond to currently unknown and changing natural resource conditions that may affect restoration.



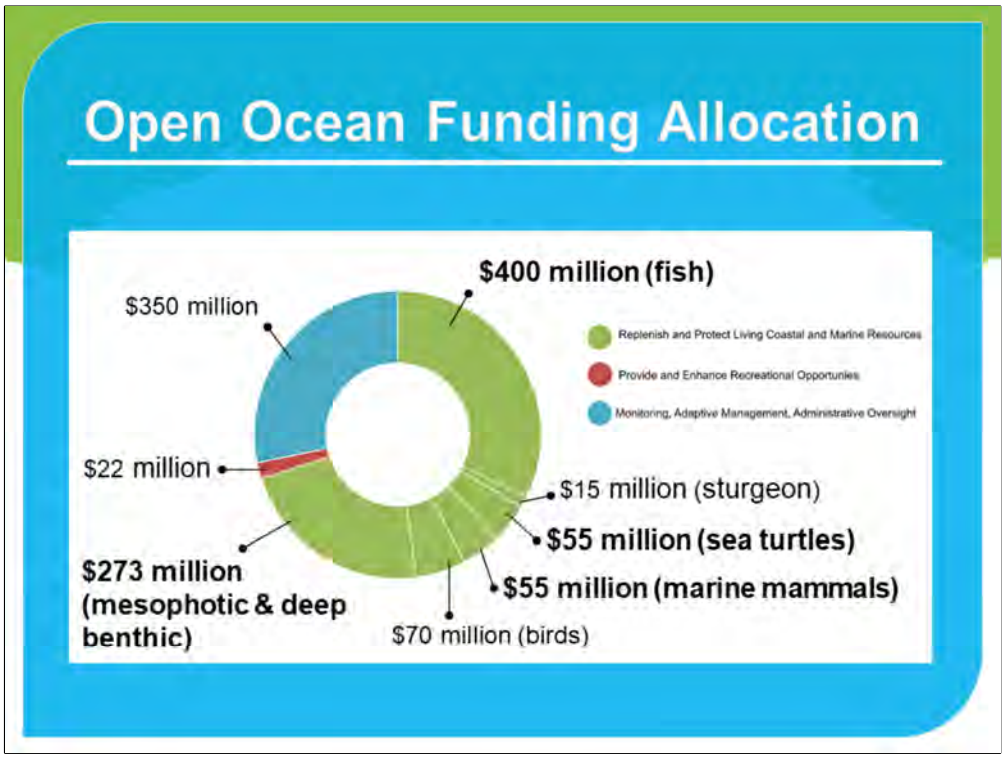
The Trustees created an implementation group for each of the 8 restoration areas established in the programmatic restoration plan: one for each of the five Gulf states, the Open Ocean, Regionwide, and an implementation group for Unknown Conditions and Adaptive Management that may be formed in the future.

Each trustee implementation group, often referred to as a TIG, will engage the public and develop restoration plans that allocate funding to specific projects and will track and report restoration progress.

The Open Ocean Trustee Implementation Group is responsible for planning and implementing restoration for the Open Ocean Restoration Area. The representatives include Chris Doley and myself, Laurie Rounds, for NOAA. Homer Wilkes, Ron Howard, and Mark Defley for the U.S. Department of Agriculture. Gale Bonanno and Treda Grayson for the U.S. Environmental Protection Agency. And Debora McClain and Ashley Mills for the Department of the Interior.

The Open Ocean trustees work together to restore the wide-ranging and migratory species injured by the spill. We coordinate with the state trustees, especially when proposed restoration projects overlap their jurisdictions.

The term ‘open ocean’ is sometimes confusing, and it is important to know that the restoration conducted by this TIG will focus on the most effective restoration for these migratory species throughout their geographic range, which in some cases may take place outside the Gulf of Mexico region.



This chart shows the restoration allocation for the Open Ocean Restoration Area. The Open Ocean allocation is approximately $1.2 billion with a little over $868 million to restore the living coastal and marine resources injured by the oil spill.

Draft restoration plan 2 focuses on the four Restoration Types highlighted and include-

Fish and Water Column Invertebrates, allocated $400 million for restoration, including $20 million for the Oceanic Fish Restoration Project approved under early restoration.

$55 million is allocated to restore Sea Turtles, $55 million to restore marine mammals, and

$273 million to restore mesophotic and deep benthic communities.

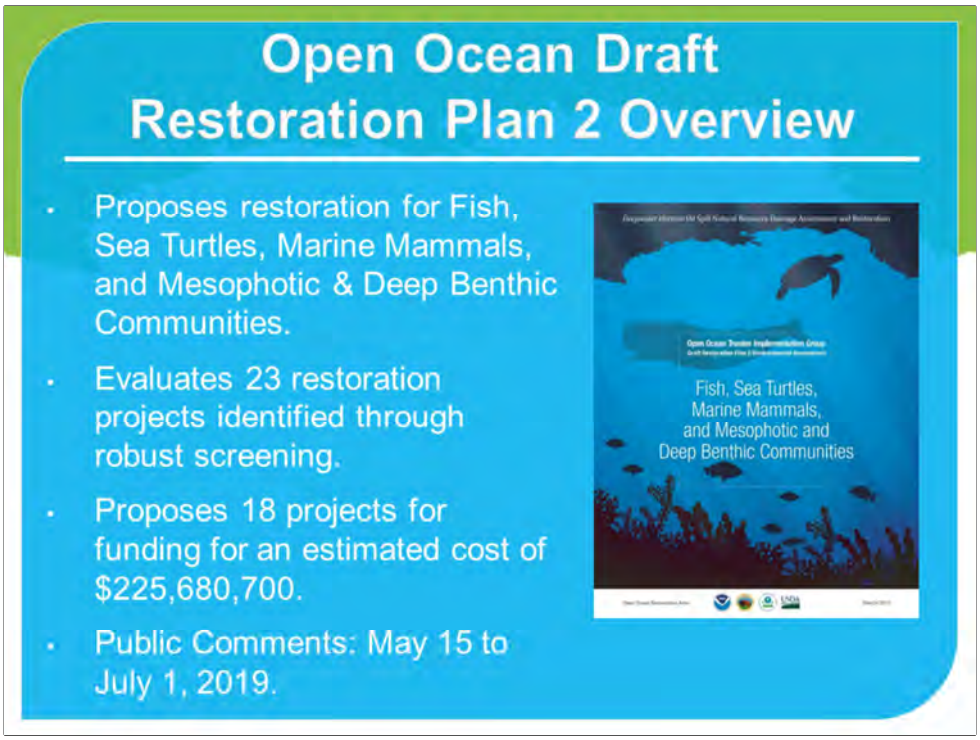
In addition to these 4 restoration types, the Open Ocean TIG is also responsible for restoring Birds, allocated $70 million, and Gulf Sturgeon, allocated $15 million.

The Open Ocean trustees' began our restoration planning process with the Project Identification step in the top left of this slide. In 2017, we released a call for restoration project ideas for all six Open Ocean restoration types and completed project screening to identify project ideas that would best meet our restoration goals and priorities.

Then in February 2018, the trustees announced that we would develop two Open Ocean restoration plans. The first restoration plan was developed for Birds and Sturgeon and finalized in March 2019.

On May 15th, we released our second restoration which we are presenting to you today. We're now seeking your review and input.

After considering and incorporating public input on this Draft Restoration Plan, we will finalize the Restoration Plan and begin implementation, monitoring, and reporting.

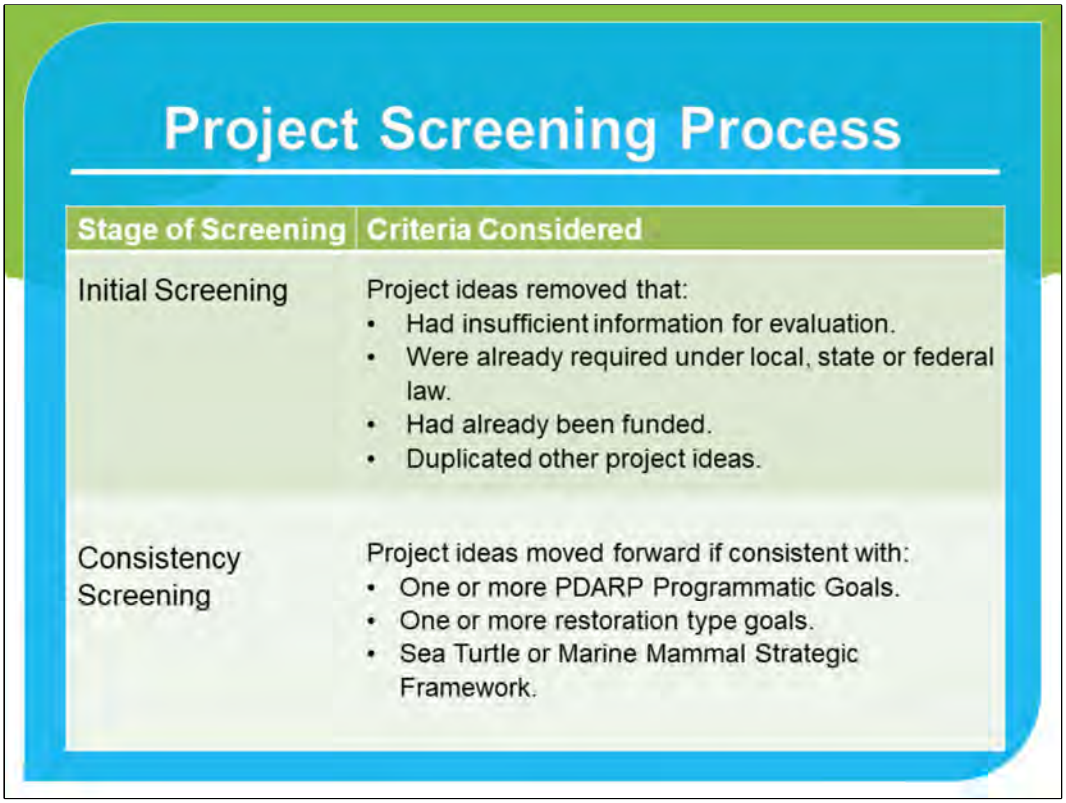


In developing draft restoration plan 2, we used a robust screening process to determine a reasonable range of alternatives to restore Fish, Sea Turtles, Marine Mammals, and Mesophotic and Deep Benthic Communities. I'd like to note here that in this presentation and in the draft restoration plan, the terms "project" and "alternative" are used interchangeably.

In the draft plan, we evaluated 23 alternatives under the Oil Pollution Act (OPA) to identify projects that would best contribute to restoring injured resources. Alternatives were also evaluated under the National Environmental Policy Act (NEPA) to consider any potential environmental effects that may result from proposed restoration actions.

Based on this evaluation, the trustees propose 18 preferred alternatives across the plan's four restoration types for an estimated total cost of approximately $225.6 million dollars.

The public comment period began on May 15th with the release of the Draft plan and will be accepted through July 1st.

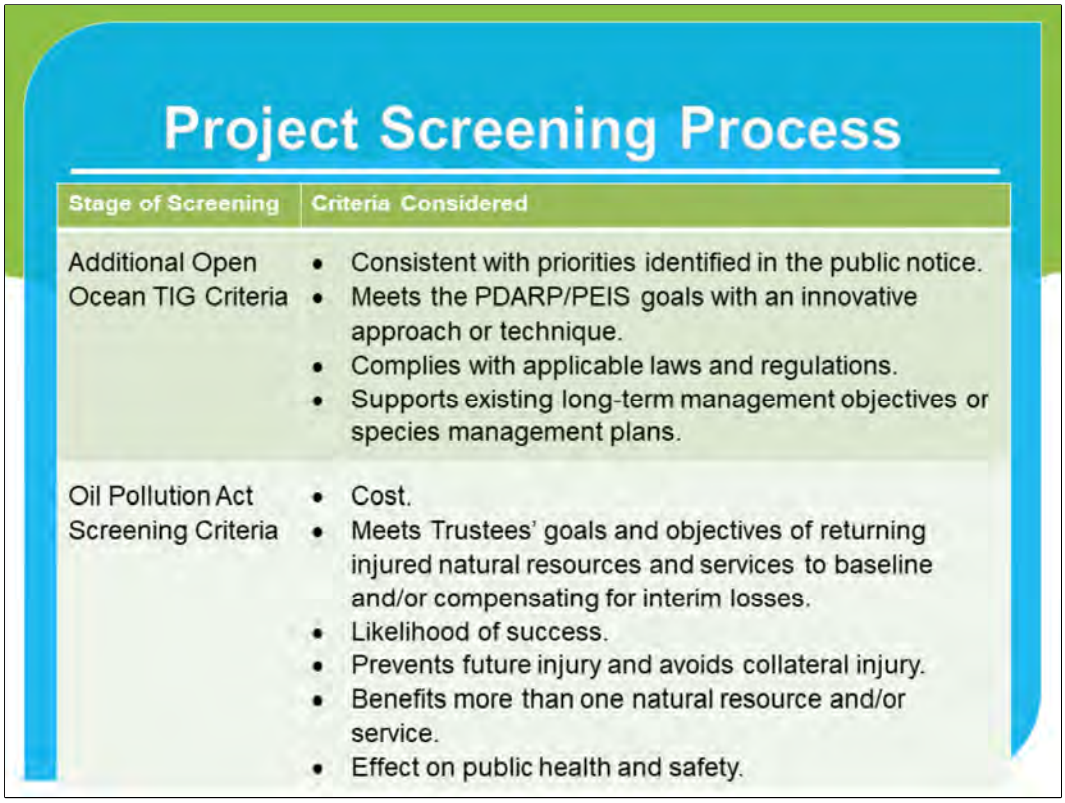


The next two slides provide a brief summary of the OO TIG's screening process, which is described in Chapter 2 of the draft restoration plan.

The screening process included restoration type experts for the Open Ocean Trustee agencies. In total, we reviewed over 1,600 project ideas submitted to the Deepwater Horizon project portal.

Initially project ideas were removed if they were duplicative, already required by law, previously funded, or if they had insufficient information for evaluation.

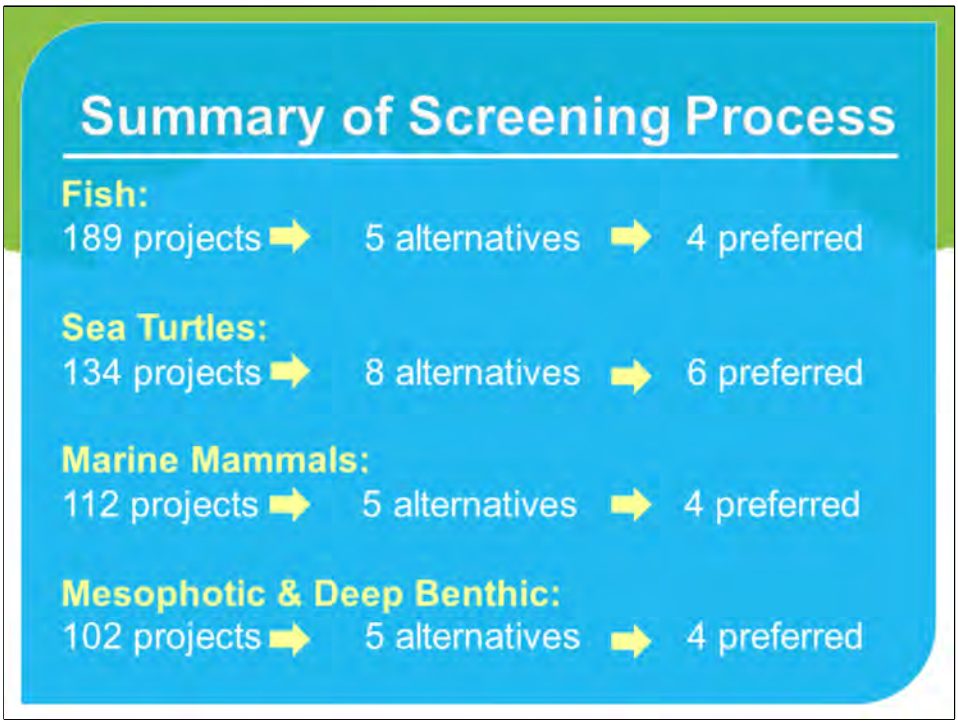
The remaining project ideas were then reviewed to identify ideas that were consistent with our high level programmatic goals and our goals for each restoration type. We also consider whether project ideas were consistent with the Trustees' Strategic Frameworks for Restoration Activities for Sea Turtles and Marine Mammals.



After the first two screening stages, we then applied additional criteria to help identify project ideas that were consistent with the priorities identified in our public notice, ideas that proposed innovative approaches or techniques to meet our programmatic goals, and ideas that fully met applicable laws and supported long-term management plans.

The remaining project ideas were then screened using Oil Pollution Act screening criteria, including costs effectiveness for the anticipated benefits, likelihood of success and whether the project would benefit more than one resource.

This project screening process helped the trustees review the many project ideas received so that a reasonable range of restoration alternatives could be developed and proposed in the draft restoration plan.



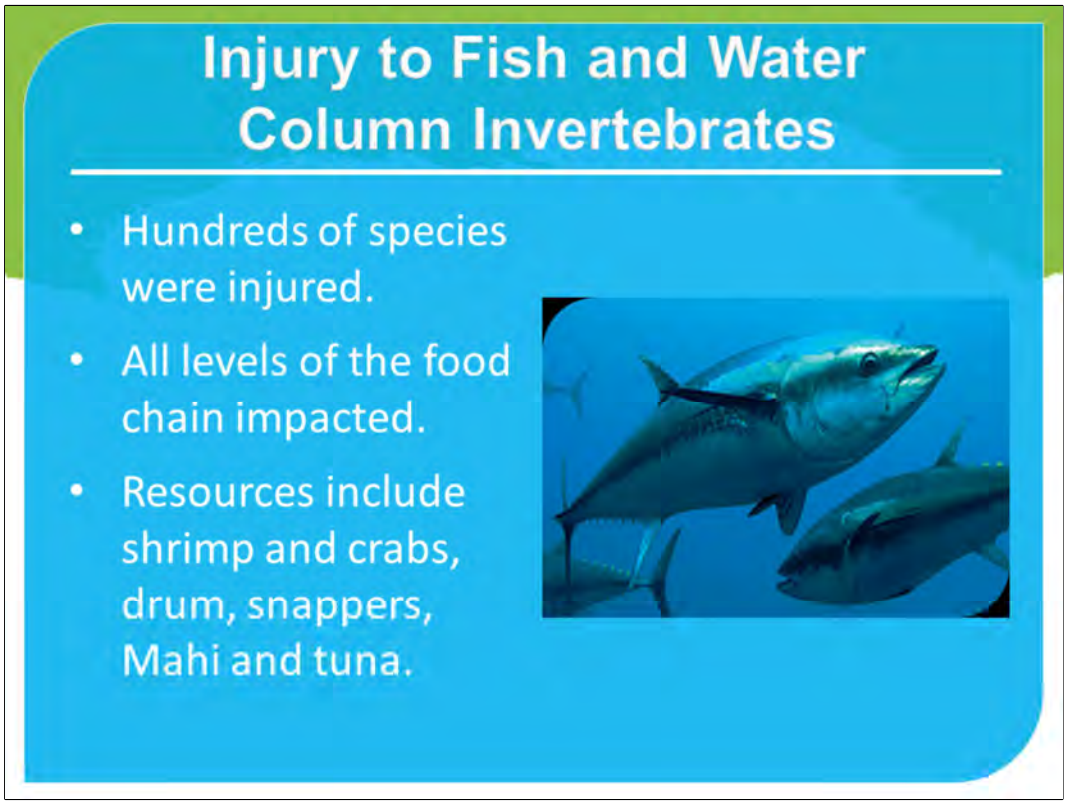
This slide summarizes the number of projects considered through the screening process resulting in the reasonable range of alternatives described in the Draft Restoration Plan. For example, following the initial screening step, our fish restoration screening team reviewed approximately 189 project ideas through the remaining screening steps. This included combining or modifying some activities from across multiple ideas to develop projects that have a high technical feasibility and that could result in the greatest restoration benefit in light of the available funding.

The reasonable range of alternatives developed includes the 5 Fish restoration alternatives described in the plan. These alternatives were then evaluated using factors from the Oil Pollution Act and the National Environmental Policy Act. Based on these evaluations, the Open Ocean Trustees are recommending 4 fish restoration projects as preferred for implementation at this time.

A more detailed description of this process for all the restoration types is provided in the Draft Restoration Plan and Environmental Assessment.

Next we will have our subject matter experts provide an overview of the preferred alternatives proposed in the Draft restoration plan. Jamie Reinhardt will begin with the Fish and Water Column Invertebrates restoration type.

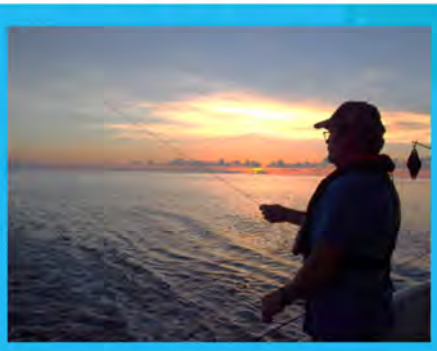
Hello, I am Jamie Reinhardt with the NOAA Restoration Center.



A wide variety of organisms inhabit the water column, including hundreds of fish such as drums, snappers and tunas as well as invertebrates such as shrimp, crabs, and squid. Many of these species spend their entire life in the water column, while others may only use the water column for part of their lives. These organisms inhabit all parts of the ocean, from estuaries to the deep sea, and play important ecological roles by cycling and transporting nutrients and energy between the nearshore and offshore and between the surface and the deep sea. They also form, in large part, the marine food web with other injured resources, such as birds, sea turtles, and marine mammals and contribute substantially to other ecosystem services.

Restoration Goals for Fish and Water Column Invertebrates

- Restore injured species across the range of coastal and oceanic zones by reducing direct sources of mortality.
- Increase the health of fisheries by providing fishing communities with methods and incentives to reduce impacts to fishery resources.



Initial Restoration Priorities: Reef fish, highly migratory species (other than sharks), coastal migratory pelagic species.

Our restoration goals are to restore injured species across the range of coastal and oceanic zones by reducing direct sources of mortality and to increase the health of fisheries by providing fishing communities with methods and incentives to reduce impacts.

4 projects will be proposed as preferred alternatives for the FWCI Restoration Type with a total estimated budget of $57,7M

Short summary of FWCI preferred alternatives-

Reduction of Post-Release Mortality from Barotrauma in Gulf of Mexico Reef Fish Recreational Fisheries: To reduce barotrauma and restore recreationally important reef fish populations, such as red snapper, and groupers, this project would distribute fish descenders to charter boats, head boats and private boat anglers and ensure anglers are using best-release practices by providing outreach and education. This project would also conduct monitoring to determine how the use of descending devices can affect mortality rates and changes in use patterns among recreational anglers. Barotrauma in reef fish is known to reduce post-release survival, and by working to reduce the impacts of barotrauma we can restore populations of reef fish.

This project initially would focus on areas of high recreational fishing effort such as coastal Alabama and the Florida handle, and the project would later expand to additional areas of the Gulf of Mexico.

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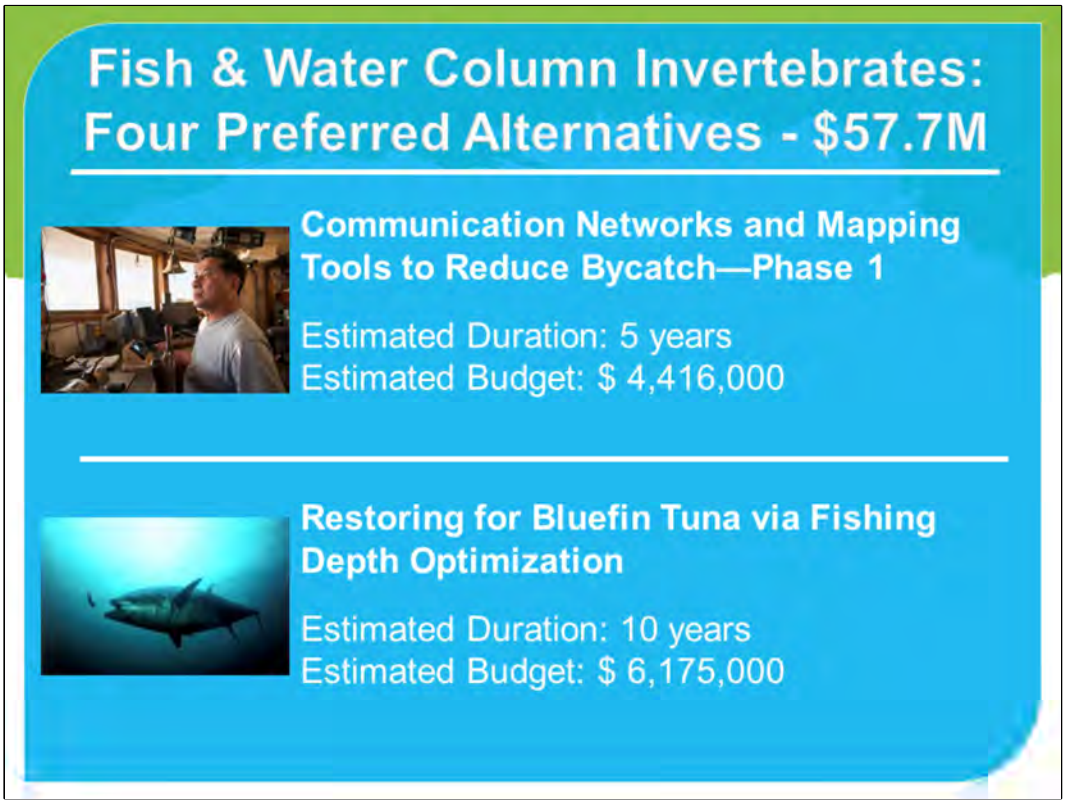
Better Bycatch Reduction Devices for the Gulf of Mexico Commercial Shrimp Trawl Fishery: This project would restore fish injured by the Deepwater Horizon oil spill by reducing finfish bycatch in the commercial shrimp trawl fishery. The shrimp trawl fishery targets brown, white and pink shrimp. However, shrimp trawls can unintentionally catch other species. The unintentional catch can include juvenile red snapper, croaker, porgy, pinfish, and Gulf menhaden fish species.

To reduce finfish bycatch, this project proposes to identify and implement a project to promote the use of better bycatch reduction devices (BRDs) through out the Northern Gulf. BRDs are devices inserted into shrimp trawls which allow non- target species to escape while retaining shrimp.

Initially, a BRD innovation survey would be conducted to identify industry-based BRD innovations currently in use. The project would engage with U.S. and international entities that are actively involved in shrimp trawl bycatch reduction development to identify BRDs for further testing.

To promote the use of these BRDs and help fishermen install and use them correctly, outreach workshops, training, and incentives would be made available. Experts on gear modification, including fishermen, would be engaged to help develop details of the program.



Communication Networks and Mapping Tools to Reduce Bycatch—Phase 1: This project would implement a feasibility study to identify areas where bycatch is high (referred to as "hotspots") in a variety of fisheries and develop tools to help fishermen avoid them. Phase I would focus on identifying the requirements of a system to create near-real- time, detailed maps of bycatch hotspots for fisheries selected for this project. Phase I also would identify the elements required for a communication tool that would inform fishermen of the high bycatch potential in those areas, so they can be avoided.

Project activities would include conducting scoping workshops to identify fisheries, regions, and ports that would benefit from a bycatch identification system; developing maps to identify areas of potentially high bycatch and high fish densities (e.g. at spawning aggregation sites); and holding a workshop to discuss the use of a voluntary communication network to avoid bycatch. The project would identify requirements for specific bycatch communication networks to inform potential implementation of the project.

Restoring for Bluefin Tuna via Fishing Depth Optimization

Data has shown that PLL gear deployed at depths greater than 360 feet may have the potential to reduce bluefin tuna interaction with PLL gear thus decreasing bluefin tuna bycatch mortality while allowing catch of yellowfin tuna.

This project would conduct a pilot study to better define an optimal pelagic longline depth to reduce bycatch of Atlantic bluefin tuna. Data would also be collected on possible effects to other species from a deeper PLL fishing depth. Fisheries observers would be used to collect this information.

This study would take place over four years in cooperation with voluntarily participating commercial PLL vessels in the northern Gulf of Mexico. Outreach workshops would be held along the U.S. Gulf Coast and Mexico to increase awareness of benefits of techniques and to encourage voluntary adoption by commercial fishermen.

Jamie: Next Sara Wissmann will provide an overview of the preferred alternatives for Sea Turtles.

Sara: Thank you Jamie.

My name is Sara Wissmann, I work for NOAA, in our National Sea Turtle Program. Tonight, I will be providing you with information on our sea turtle preferred alternatives.

First…some background. There are five species of sea turtles found in the Gulf of Mexico – the loggerhead, Kemp's ridley, green, hawksbill, and leatherback sea turtles. All 5 are listed as threatened or endangered under the Endangered Species Act, and all are Federally managed by both DOI and NOAA. All sea turtles are highly migratory and have a wide geographic range. In the Gulf of Mexico, sea turtles are also a shared resource, crossing state, federal, and international boundaries.

The Trustees found that all species of sea turtles were injured by the Deepwater Horizon oil spill. Injuries were quantified for loggerhead, Kemp's ridley, green, and hawksbill sea turtles. Leatherbacks were also injured, but injury could not be quantified to a specific number of injured animals.

The Trustees established 4 restoration goals for sea turtles in the Programmatic Damage Assessment and Restoration Plan, which guide restoration planning.

Here are our goals…

1. Implement an integrated portfolio of restoration approaches to address all injured life stages and species.

2. Restore injuries by addressing primary threats to sea turtles such as bycatch in commercial and recreational fisheries, acute environmental changes, loss or degradation of nesting beach habitat, and other human-caused threats.

3. Restore sea turtles in the various geographic and temporal areas within the Gulf of Mexico and Atlantic Ocean that are relevant to injured species and life stages.

4. Support existing conservation efforts by ensuring consistency with existing sea turtle recovery plans and recovery goals.

In this restoration plan, the Open Ocean TIG is proposing 6 sea turtle projects as our sea turtle preferred alternatives. I'll go through each one.

The 1st project is **The Gulf of Mexico Sea Turtle Atlas**

The estimated duration is **15 years**, and the estimated budget is **5.7M**

This project would develop a central platform to access and view sea turtle data that are currently dispersed across various agencies, academia, and organizations. The project would provide a public, web-based interface that is available to stakeholders, and restoration planners and managers to inform restoration planning and help prioritize needs and activities.

The 2nd project is **Identifying Methods to Reduce Sea Turtle Bycatch in the Reef Fish Bottom Longline Fishery**

The estimated duration is **2 years**, and the estimated budget is **$290K**

Sea turtle bycatch in the Gulf of Mexico reef fish bottom longline fishery has been documented by NOAA's Observer Program since 2005. Bycatch in this fishery occurs when sea turtles take baited hooks or become entangled in the line, causing serious injuries and mortality. This project would work to identify factors contributing to sea turtle bycatch in the bottom longline fishery. Existing observer data would be thoroughly analyzed and compared to other data sets to identify environmental factors and fishing practices that may be associated with sea turtle bycatch. This project would inform future restoration efforts.

The 3rd sea turtle project is titled **Developing a Gulf-wide Comprehensive Plan for In-water Sea Turtle Data Collection**

The estimated duration is **2 years**, and the estimated budget is **$655K**

This project would develop a comprehensive plan for coordinated data collection on sea turtles in the marine environment across the Gulf of Mexico. Assessing the status of sea turtle populations across broad areas and multiple life stages is difficult. As a result, data gaps exist regarding sea turtle distribution, abundance, and vital rates. This project focuses on the development of a systematic approach for sea turtle data collection in the marine environment. It would involve convening experts to develop a standardized data collection strategy, identifying data collection protocols and coordinating with various stakeholders.

The 4th project is **Developing Methods to Observe Sea Turtle Interactions in the Gulf of Mexico Menhaden Purse Seine Fishery**

The estimated duration is **4 years**, and the estimated budget is **3M**

Fisheries observers help to characterize bycatch by observing where, when, and how many protected species become entrapped in fishing gear. Newly developed tools, such as video monitoring, are also employed to document bycatch. The Gulf of Mexico menhaden purse seine fishery currently lacks an effective observer program to assess sea turtle bycatch. This project would work with the menhaden industry to identify the most viable means of sea turtle bycatch detection to fill important knowledge gaps. This project may inform future restoration efforts.

Our 5th project is titled **Reducing Juvenile Sea Turtle Bycatch through Development of Reduced Bar Spacing in TEDs**

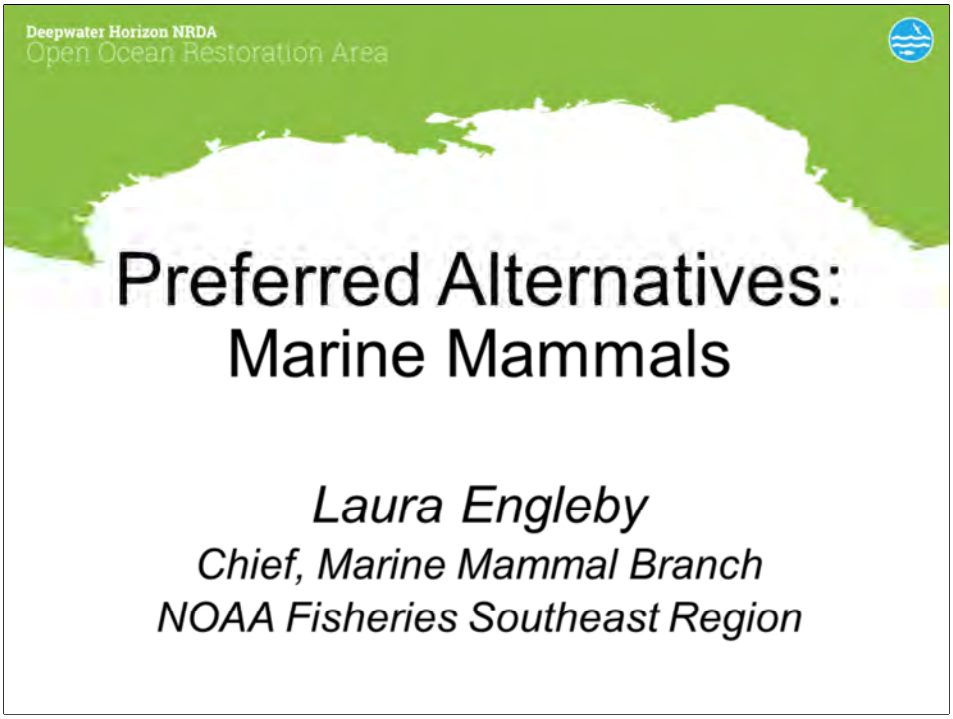
The estimated duration is **4 years**, and the estimated budget is **2.15M**

Sea turtle mortality in the shrimp otter trawl fishery has been greatly reduced with use of turtle excluder devices, generally referred to as TEDs. A TED is a metal grid that fits into the cod end of the trawl net, with a top or bottom escape opening covered by a flap. When sea turtles encounter a TED they should be able to escape through the adjacent opening, while shrimp pass through the bars and are caught in the net. While current TEDs are successful at excluding larger turtles, they are not able to effectively exclude small juvenile sea turtles because they can either pass through the bars or are unable to escape through the flap opening. This project would test new TED designs for otter trawls with smaller bar spacing to determine if they can effectively exclude small turtles. The new designs would also be evaluated for shrimp catch retention on commercial vessels.

The 6th and last sea turtle project we'll discuss today is called **Long-term Nesting Beach Habitat Protection for Sea Turtles**

The duration for this project is **3 years**, and estimated budget is **7M**

Sea turtles face a variety of threats on their nesting beaches. Nesting females and hatchlings are negatively affected by artificial lighting, coastal armoring, and nesting habitat alteration. This project would protect valuable, high-density sea turtle nesting habitat through acquisition of nesting habitat near the Archie Carr National Wildlife Refuge on the Atlantic coast of Florida. Through acquisition of land from willing sellers, the project would protect essential nesting habitat in perpetuity; reduce future threats from development; and enhance sea turtle hatchling productivity.



Sara: Next Laura Engleby will provide an overview of the preferred alternatives for Marine Mammal restoration.

There are 21 species of cetaceans (the whales and dolphins) found across a broad range of habitats in the northern Gulf of Mexico, including offshore, coastal waters, and the bays, sounds, and estuaries. All marine mammals are federally protected under the Marine Mammal Protection Act and some, such as the Gulf of Mexico Bryde's whale and sperm whale, are also protected under the Endangered Species Act.

The Trustees determined that, as a result of the Deepwater Horizon Oil Spill, exposure to chemical contaminants had resulted in death, reproductive failure, and adverse health effects, such as lung and adrenal disease, in northern Gulf of Mexico cetacean populations. Marine mammals are long-lived species, so it may take decades to recover without active restoration. The Open Ocean TIG has placed an initial restoration focus on continental shelf and oceanic stocks of marine mammals.

The trustees' restoration goals are to:

- Implement an integrated portfolio of restoration approaches to restore injured marine mammal species across their diverse habitats and geographic ranges.
- To identify and implement restoration activities that mitigate key stressors in order to support resilient populations.
- Collect and use monitoring information, such as population and health assessments and distribution information.
- The Trustees will also identify and implement actions that support ecological needs of the stocks; improve resilience to natural stressors; and address direct threats caused by human activity, such as bycatch in commercial fisheries, vessel collisions, noise, industrial activities, illegal feeding and harassment, and hook-and-line fishery interactions.

After careful consideration, the Trustees are proposing four preferred alternatives for marine mammals in this draft restoration plan. These include:

Reducing Impacts to Cetaceans During Disasters by Improving Response Activities

One of the more direct opportunities to benefit cetaceans is through improving and enhancing response and assessment activities during anthropogenic and natural disasters in the Gulf of Mexico, when large numbers of animals are threatened. Specific activities proposed by this project would include conducting a Gulf-wide gap analysis and risk assessment of the current disaster response capacity. Activities would also include improving planning and developing protocols for marine mammal disaster response and investigation, and developing new tools and techniques to minimize or reduce cetacean injury and mortality. Overall, restoration goals would be met by the eventual implementation of marine mammal disaster response and preparedness measures that would improve the survival and health outcomes of cetacean populations in the Gulf of Mexico.

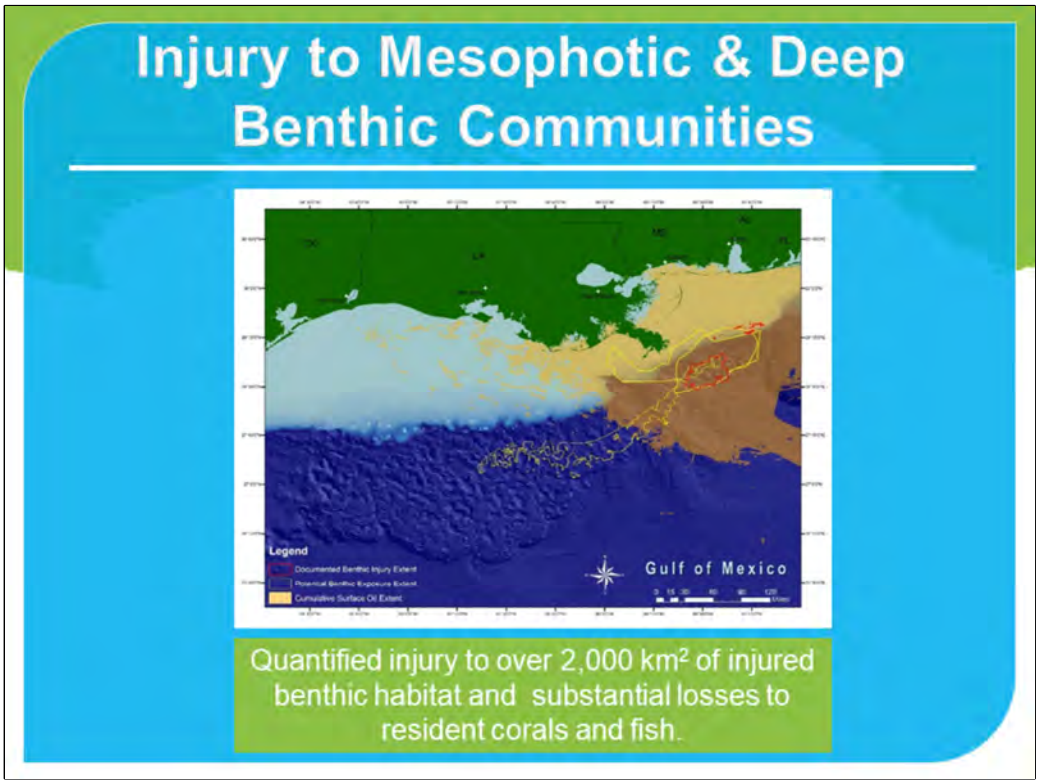
The acoustic environment in the Gulf of Mexico includes a spectrum of noise sources, including a variety of human-made sounds from, for example, seismic airguns, explosives, pile driving, and propeller noise. Cetaceans rely on sound for vital life functions and increased anthropogenic noise levels may mask important biological sounds, disturb or displace vital behaviors, and cause direct physiological harm. Many strategies and technologies for reducing noise impacts to cetaceans have been developed; however, further development and effective implementation are still needed. This project would leverage existing recommendations and studies to identify activities to reduce noise levels in the Gulf of Mexico; convene experts to learn more about the status of new technologies and identify mechanisms for applying new and existing techniques in the Gulf of Mexico; and work with groups to identify partnership opportunities to advance noise reducing technologies for testing and implementation. A noise risk assessment would be conducted to identify the highest risk areas in the northern Gulf of Mexico where restoration actions could most effectively prevent or reduce the negative effects of anthropogenic noise on cetaceans. The project would also use passive acoustic monitoring arrays to continue baseline data collection to inform restoration and monitor noise reduction outcomes.

Compilation of Environmental, Threats, and Animal data for Cetacean Population Health Analyses (CETACEAN) Platform

Currently, information on cetaceans in the Gulf of Mexico is collected by a variety of organizations and is stored using different databases. To coordinate critical data for restoration, this project proposes to develop a platform that would provide user-friendly, web-based access to datasets that would assist the Trustees, restoration planners, responders, and conservation managers in the restoration and protection of marine mammals. It would also develop protocols to better integrate data collected across multiple partners. Technical experts would identify key datasets, parameters, analyses, and partners for the project. The CETACEAN platform would be released over the first three years of the project and include training to inform users and data collectors of standardized data collection protocols. The CETACEAN platform would support restoration planning, prioritization, and implementation by making key data available to decision makers in a centralized platform.

Vessel collisions are one of the main anthropogenic sources of mortality for large whales around the world and are a threat to cetaceans in the Gulf of Mexico, particularly to large whales, such as Gulf of Mexico Bryde's whales. While there are a number of potential actions to reduce the risk of whale-vessel interactions, there is insufficient information to implement one set of measures across the Gulf of Mexico and to know what measures would be most effective. In order to appropriately focus vessel strike risk reduction activities, this proposed project would first conduct analyses to identify locations of the highest volume of vessel activity in the Gulf, consolidate data for characterizing offshore cetacean distribution, and then combine vessel and cetacean data to identify areas of relative concern for collision risk. Once the project establishes and prioritizes high-risk areas, the project would identify and develop partnerships, cultivate buy-in from other stakeholders, and implement the most effective and efficient activities to reduce and mitigate vessel strike mortality for each high-risk area.

Laura: Next Kris Benson will provide an overview of the preferred alternatives for Mesophotic and Deep Benthic Communities.



Quantified injury to over 2,000 km^2 footprint of injured benthic habitat surrounding the wellhead

Substantial losses to resident corals and fish in approx. 10 km^2 of mesophotic reef habitat

Documented hydrocarbon exposure (not quantified injury) to an additional ~7,500-12,000 km^2 of benthic habitats extending up the slope and onto the shelf

“Deep plume” in water column extending ~400 km SW of the wellhead, trap height intersecting bottom depths from 975-1280m

Cumulative surface oiling extent of at least ~112,150 km^2 contributing to marine snow event observed throughout that area.

The final restoration type that we will discuss is mesophotic and deep benthic communities. This includes hard and soft ground habitats, as well as associated fish and invertebrates. Rare corals, fish, crabs, and other small animals and microbes live in these habitats on the sea floor and are part of the foundation of life and food webs in the northern Gulf of Mexico. In addition, mesophotic reef habitats are important for a variety of fish species of commercial and recreational importance such as snapper, grouper, and amberjack.

The Deepwater Horizon oil spill severely affected mesophotic and deep benthic communities. The species that make up these communities can be long-lived and slow growing, some living for hundreds or even thousands of years. As a result, their recovery is expected to be slow. Restoration is also complicated by several factors, including a limited understanding of key biological functions, limited experience with restoration at depth or with these species, and remote locations that limit accessibility.

Therefore, the trustees' restoration goals are to:

- Restore invertebrate and fish abundance and biomass for injured species, focusing on high-density mesophotic and deep water coral sites and other priority hard-ground areas to provide a continuum of healthy habitats from the coast to offshore.
- To actively manage valuable deep-sea communities to protect against multiple threats and provide a framework for monitoring, education, and outreach.
- And to improve our understanding of these communities to better inform management and ensure resiliency.

The preferred alternatives for restoration of mesophotic and deep benthic communities comprise a portfolio that would be implemented over a 7-8 year period. An initial 1-2 year implementation planning period would allow for strategic planning, development of detailed adaptive management and public engagement plans, and coordinated management of cross-cutting project requirements. Implementation planning would be followed by a 5-year implementation period and a final year of project evaluation and reporting. The total estimated budget for the portfolio of preferred alternatives is approximately $125.5 million.

The “mapping, ground-truthing, and predictive habitat modeling” project would document abundance and distribution of deep benthic communities and provide fundamental information to prioritize and support protection and management activities and to target locations for direct restoration.

Specific project activities include assessing current mapping data, prioritizing mapping sites and coordinating data management through annual workshops; undertaking mapping and ground-truthing in the mesophotic zone; undertaking mapping and ground-truthing in the deep benthic zone; assessing current models and developing and refining predictive habitat models to improve the effectiveness and cost efficiency of future mapping and ground-truthing efforts and of on-the-ground habitat conservation and restoration actions; and establishing data infrastructure, protocols, and management, including coordination with existing data repositories and identification of final data and analysis products.

The “habitat assessment and evaluation” project would fill critical data gaps and evaluate sites for potential direct restoration and protection activities, at both injured and reference sites; document ongoing injury to MDBCs from natural and anthropogenic threats; provide background data needed to detect and quantify potential future impacts in other locations and to assess success of restoration efforts with respect to recovery, natural mortality and growth rates; and establish a baseline for health and condition to guide direct restoration and protection.

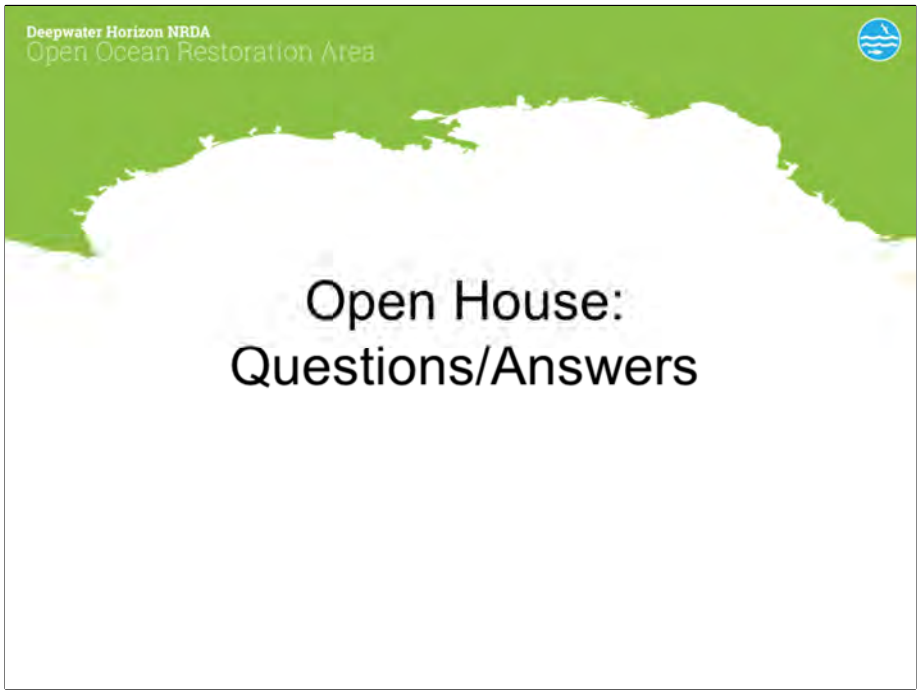
Specific project activities include assessing available information for analysis, integration, and coordination with existing data repositories; coordinating sampling strategies (for example, monitoring standards, appropriate number of sites and frequency of sampling), data management (integration with existing long-term monitoring data sets, dissemination, archiving), infrastructure, and analyses, including evaluation and adaptive management of the project, through annual workshops; establishing and maintaining long-term monitoring and sentinel sites based on documented injury, reference, and active restoration or protection; conducting field data collection and analysis through series of periodic, multi-disciplinary, benthic surveys; conducting and/or assimilating regional oceanographic characterizations; supporting development and application of image analysis/species recognition tools; and assessing the effectiveness of existing spatial management frameworks for addressing key threats to MDBCs.

The "coral propagation technique development" project would be a pilot-scale project to develop methods and techniques for effective enhancement of coral recruitment and growth and the application of successful methods at a large scale for restoration, and would directly compensate the loss of MDBC corals and associated benthic and water column communities injured by the DWH oil spill.

Specific project activities would include integrating mapping, habitat suitability and larval dispersal modeling, and habitat assessment datasets for restoration site identification and for methods development and planning; undertaking performance review and results analysis, coordinating field and lab efforts, and coordinating data management; undertaking field and lab work to test a variety of different substrates, techniques, and methods to enhance recruitment and/or transplant corals, including direct *in situ* transplants, among or within sites, and use of laboratory grown coral fragments; undertaking lab work, including development of coral husbandry techniques and specialized analyses of biological and environmental samples; and undertaking *in situ* testing with sufficient replication to allow robust statistical analysis of the comparison among treatments, with repetitive monitoring over time of multiple deployments in each of multiple sites and with deployments of instrumented landers at each site to understand environmental variables contributing to success or failure of this approach and the health of the resident corals

The "active management and protection" project would manage and protect MDBCs from known threats, contributing to management activities to achieve restoration goals identified in the DWH PDARP to maintain ecological integrity and increase ecosystem resilience through outreach, education, engagement and through threat reduction efforts such as mooring buoy installations and removal of marine debris, derelict fishing gear, and invasive species. This project would also provide information to management entities such as the Gulf of Mexico Fishery Management Council, NOAA's Office of National Marine Sanctuaries, and DOI's Bureau of Ocean Energy Management.

Specific project activities would include extending outreach and education related to MDBC to the public generally and engaging agencies, stakeholders, and advisory groups with MDBC science & restoration; and accomplishing resource management and protection by directly addressing threats. Education, outreach, and engagement activities would include developing partnerships with education venues to create and display educational exhibits and associated programs about MDBC; developing and disseminate content for K-12 education programs, social media, and traditional media sources; and assessing educational and outreach outcomes with behavioral and attitudinal surveying; collaborating with researchers to interpret science and produce educational materials; evaluating priority areas eligible for protection under various existing programs and mechanisms; and informing and supporting management and protection actions through data sharing and communications with strategic partners. Threat reduction activities would include preventing damage from boat anchoring through mooring buoy installation & maintenance; improving understanding of visitor uses and reducing user conflict through evaluation and development of vessel registration and/or fishing endorsement programs; assessing and remediating threats of contaminant releases or physical impacts from abandoned or leaking oil and gas infrastructure; preventing damage by removing marine debris and derelict fishing gear; supporting stable MDBCs by removing invasive lionfish and other invasive species; and improving management through enhanced resource protection capacity.

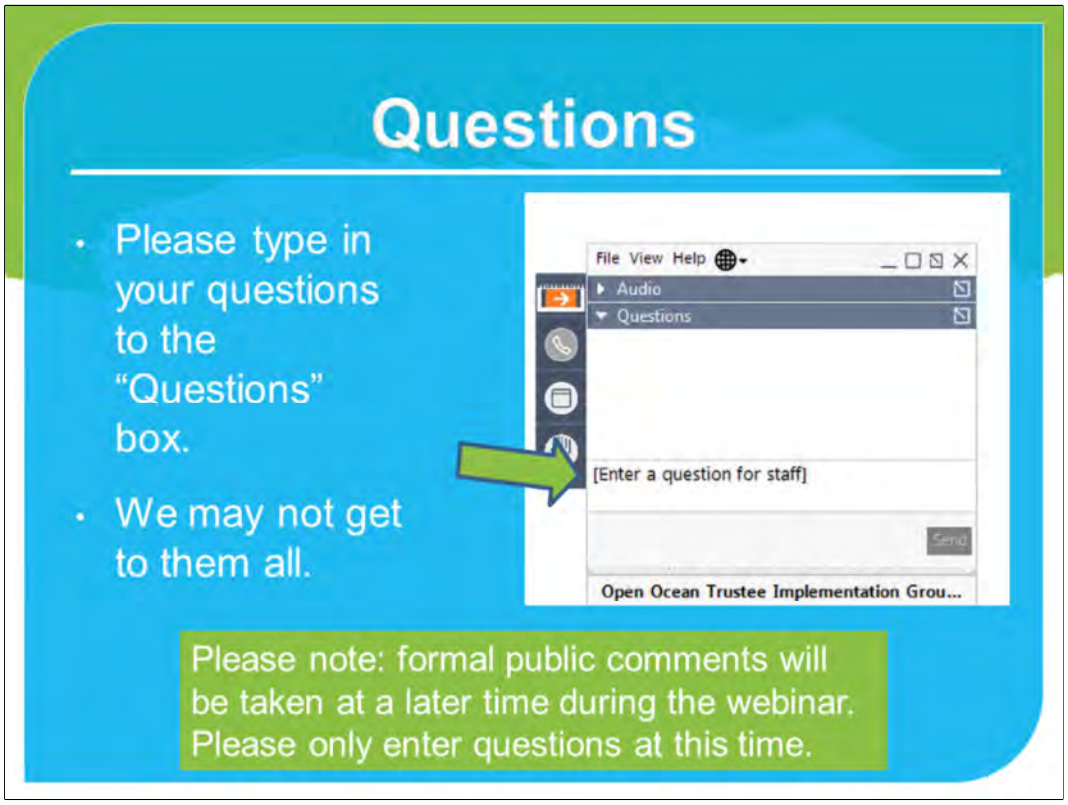


Kris: Thank you and now I'll turn it back over to Laurie.

Thank you Kris. We would now like to give you the opportunity to ask questions about the Draft restoration plan, the proposed projects, or the comment process and next steps. As we described at the beginning of the webinar, this is an opportunity to ask questions and the trustees will answer as many questions as we can over the next 10 to 15 minutes.

We hope that this question/answer period will assist with the development of comments on the draft restoration plan. Please continue to hold any comments that you would like to submit until we begin the public comments session of the webinar next.

Stephen Heverly a contractor with NOAA will now provide a reminder about how to enter your questions and the process we will use during this Q&A period.



Ok. We've been collecting your questions along the way and we're going to paraphrase some of them, or combine similar themes to try to answer as many questions as possible. Remember, if you still have a question at this point, you can type it into the "Questions" box at the bottom of the GoToWebinar control panel (shown on this slide).

We'll take a few minutes to give you time to enter any additional questions before we begin. Please be as concise as possible.

We'll pass your questions on to someone on our team that can best respond, and they'll provide an answer if they can. Your questions and our answers will hopefully help you with crafting your public comments later in the webinar, or if you submit them through our online portal or the mail.

We may not get to all of the questions, but we'll try to get to as many as possible during the next 10-15 minutes.

Here we go…

**Notice of time remaining at halfway point and with only 2 minutes remaining.*

Laurie: Thank you for your questions. We will now move into the Public Comments Session of the webinar to accept your comments on the Open Ocean Draft Restoration Plan 2 and Environmental Assessment.

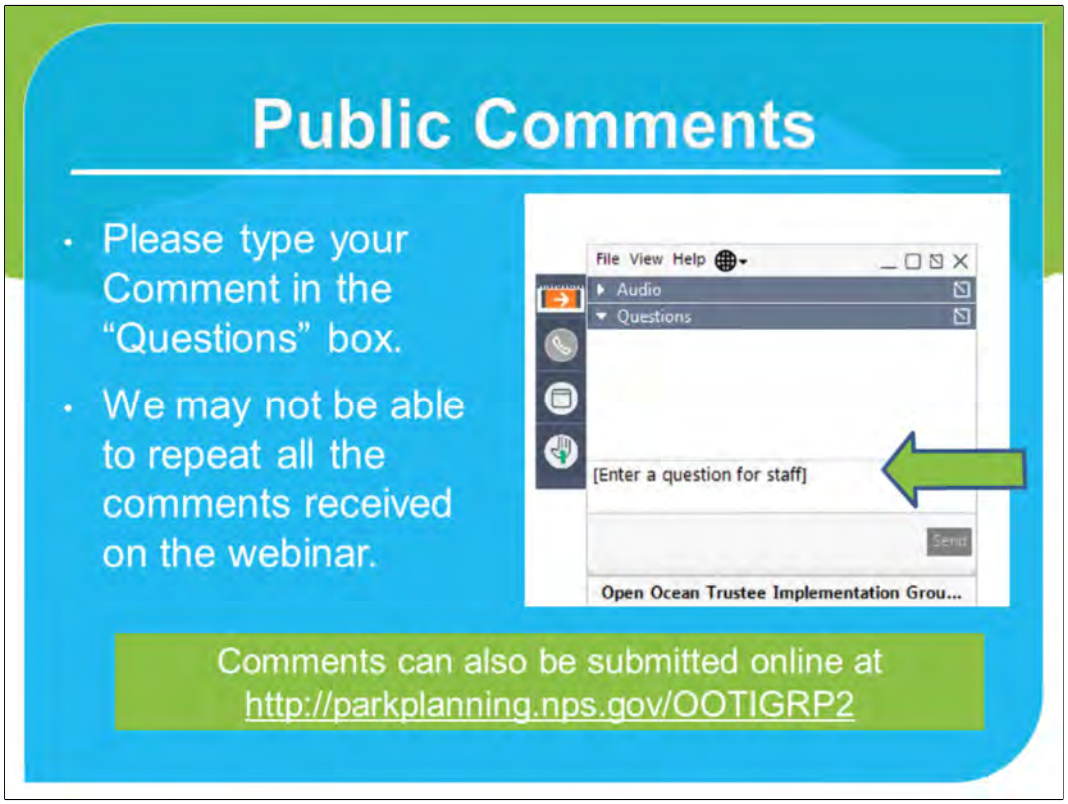
Comments submitted during this portion of the webinar will be included as part of the formal public comments for the draft restoration plan. We will accept comments over the next 10 minutes before closing the webinar at our scheduled end time.

Because of time limitations and the constraints of the webinar commenting tool, please keep your comments brief (similar to a two to three-minute verbal comment at an in-person public meeting). If you have lengthier comments, please consider using other modes to provide comments via our online portal or by mail. Method for submitting comments are provided on our website, Gulf Spill Restoration Dot NOAA Dot Com.

During the public comment period, the Trustees will not respond to comments at this time. Instead, a summary of comments received, the Trustees' responses, and any changes made to the Draft plan will be included in the Final restoration plan.

As a reminder, the Trustees listed here are participating today/tonight…

Next, Stephen will go over how to enter your comments using the GoTo Meeting questions box.



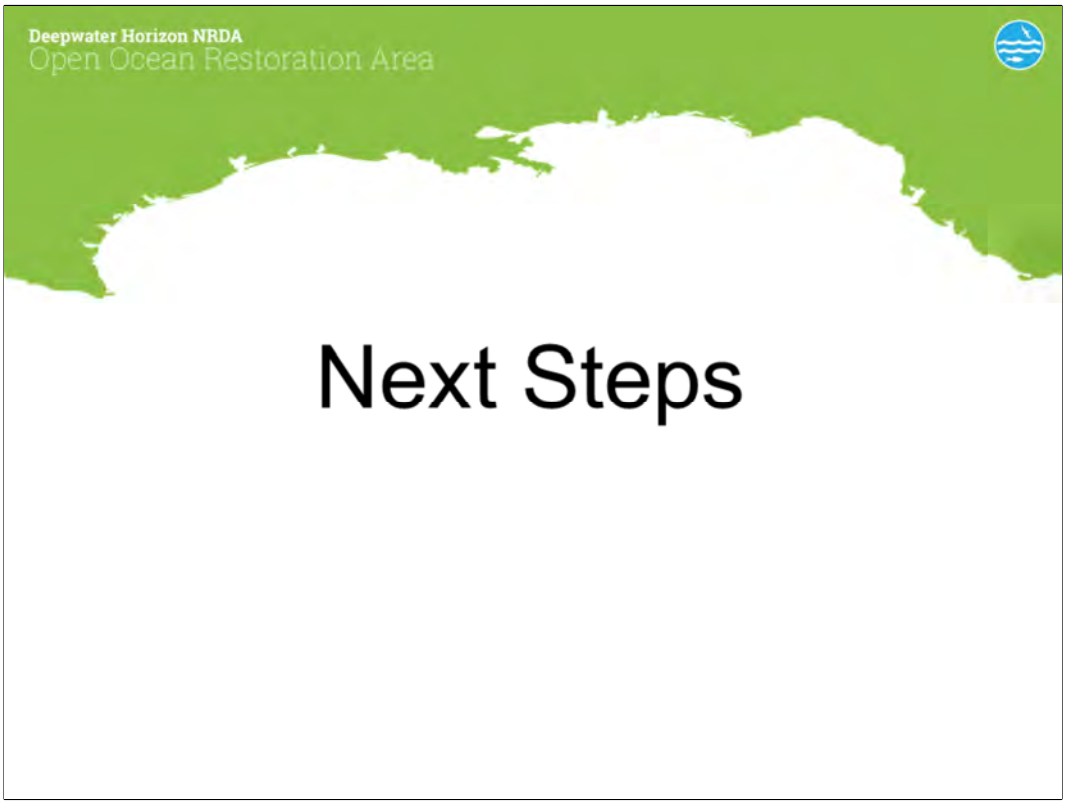
Please type your comment for the Open Ocean Draft Restoration Plan into the Questions box.

We'll take a few minutes to give you time to enter any comments before we begin to read them so that participants can hear your comment.

We may not be able to repeat all of the comments provided, but we'll try to get to as many as possible. However, comments submitted during this portion of the webinar will be included as part of the formal public comments on the Open Ocean Draft Restoration Plan 2.

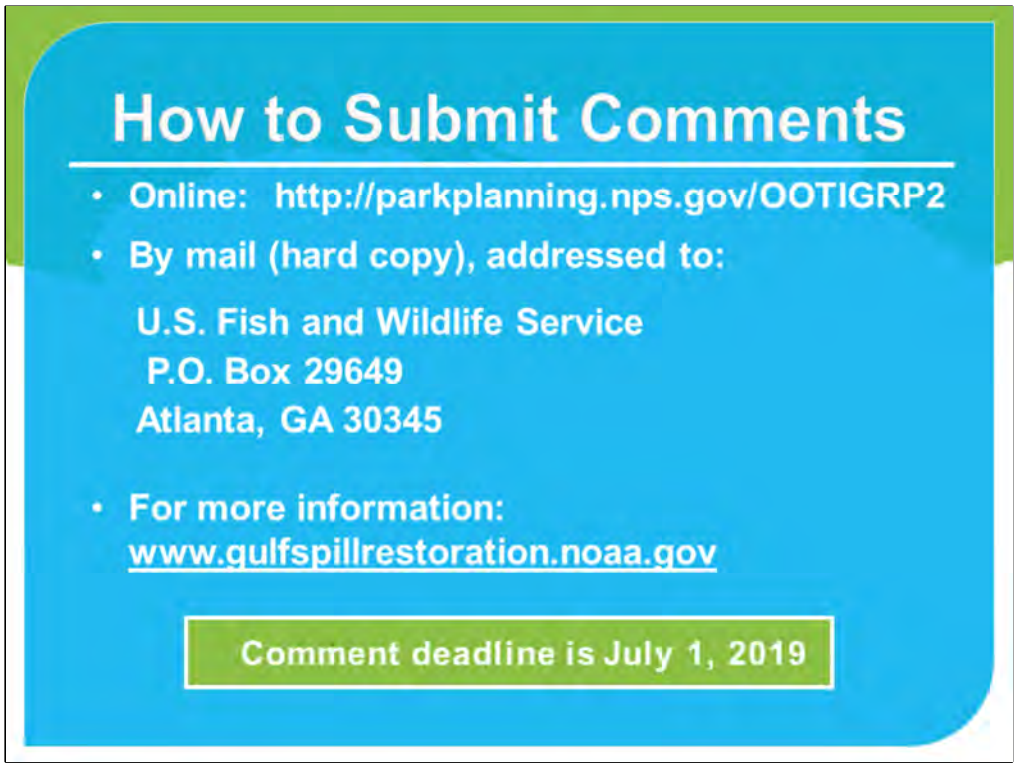
Here we go…

**Notice of time remaining at halfway point and with only 2 minutes remaining.*



Stephen: Thank you for your comments. Laurie will now go over next steps.

Before closing tonight's meeting, I'll briefly remind everyone how to submit comments online or through the mail and next steps in the restoration planning process specific to this restoration plan.

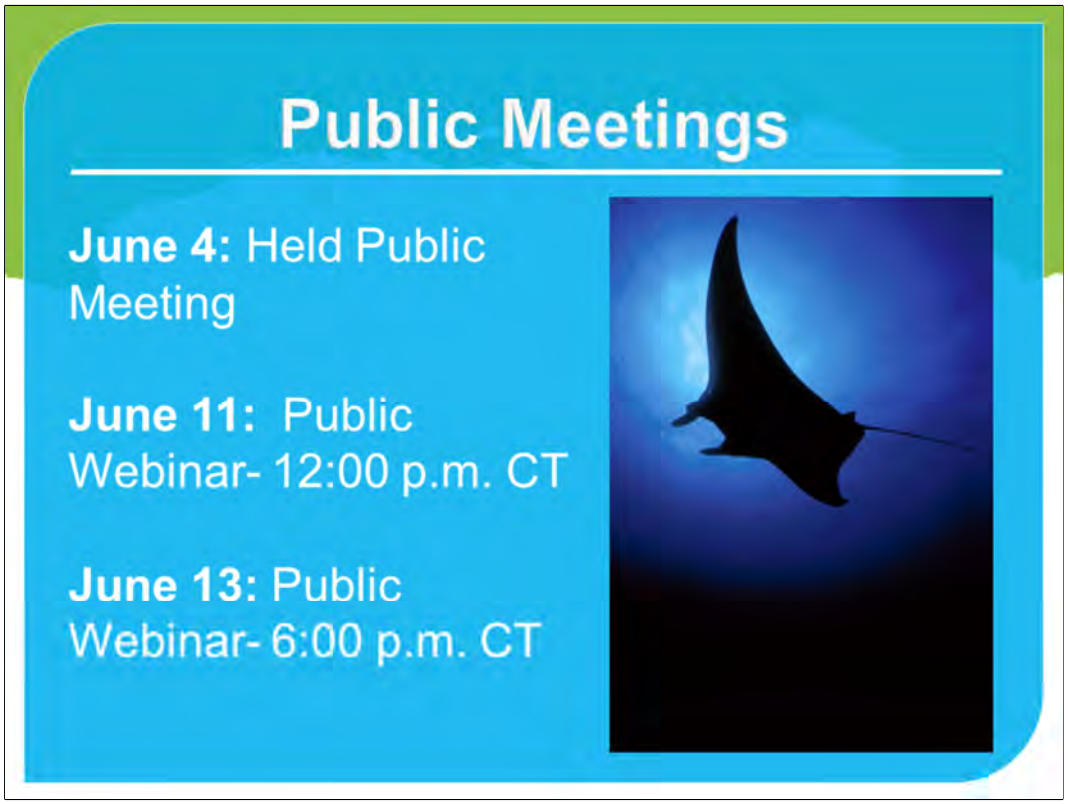


Comments may be submitted via our online comment portal or by U.S. mail at addresses provide on this slide and in the materials available tonight.

Public comments will be accepted on or before July 1, 2019

After the close of the public comment period on July 1st, the Open Ocean TIG will consider all input received during the public comment period and then finalize the RP/EA.

A summary of comments received and the Open Ocean TIG's responses will be included in the Final Restoration Plan and Environmental Assessment.



{modify based on date given] The Open Ocean Trustees are holding two public webinars. Tonight's webinar was the first. The second webinar will be held on June 13th at 6 pm Central time. Registration is required to participate and links to register are available on our website.

Thank you for your time and interest in Deepwater Horizon Gulf Restoration. We look forward to receiving comments on the draft restoration plan.

We will post the presentation from today's/tonight's webinar to the Trustee's website in the next few days.

We will now conclude this meeting. Thank you.