

DEEPWATER HORIZON OPEN OCEAN TRUSTEE IMPLEMENTATION GROUP

ANNUAL MEETING WEBINAR SCRIPT

December 12, 2019

Slide 1: Open Ocean Trustee Implementation Group Annual Meeting, December 12, 2019

Gale

Welcome to the Open Ocean Restoration Trustee Implementation Group's Annual Meeting. My name is Gale Bonanno. I'm the EPA representative for the Open Ocean Trustee Implementation Group. Thank you for joining us today. We are happy to see that over 160 people have registered for today's webinar. We are excited to talk with you today about our progress and next steps in meeting our restoration goals for the Open Ocean Restoration Area. We are also looking forward to answering your questions following our presentation. Before we start, I'd like to ask Stephen Heverly with NOAA to go over the webinar tools that you may want to use today.

Slide 2: Webinar Participation

Stephen

Thank you Gale. Hi, everyone. This is Stephen Heverly with NOAA's Restoration Center, I'd like to 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'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. You'll also have an opportunity to submit questions at the end of the presentation.

After our presentation, we'll answer as many questions as we can in the time allotted. We'll also post the presentation slides and a transcript of the webinar to the GulfSpillRestoration.noaa.gov website in a few days. Now back to Gale to go through our agenda for today.

Slide 3: Today's Agenda

Gale

Thank you Stephen. During today's webinar we'll provide an overview of the Open Ocean TIG's representatives and funding; provide an update of TIG activities; provide an update on Open Ocean Restoration Projects; and tell you how you can find more information. Then we'll have time for questions.

Slide 4: Welcome to the Open Ocean TIG

Gale

I'd like to introduce the members of the Open Ocean Trustee Implementation Group. The Open Ocean Trustee Implementation Group, referred to as a TIG, is one of seven Gulf of Mexico Restoration Areas established to conduct restoration for the *Deepwater Horizon* Natural Resource Damage Assessment. The four federal natural resource trustees are the members of this TIG, and we work together to plan and implement restoration for fish, sturgeon, sea turtles, marine mammals, birds, and deep-sea communities injured by the 2010 BP oil spill. All of our work is consistent with the programmatic restoration plan finalized by the Trustee Council in April 2016. The Open Ocean TIG also coordinates with the five Gulf state trustees, especially when restoration overlaps state jurisdictions.

The representatives for the Open Ocean TIG are Chris Doley and Laurie Rounds for the National Oceanic and Atmospheric Administration or NOAA; Ron Howard and Mark Defley for the U.S. Department of Agriculture; myself and Treda Grayson for the U.S. Environmental Protection Agency; and Debora McClain and Ashley Mills for the Department of the Interior.

Slide 5: Open Ocean Restoration Area Funding

Gale

This diagram shows the restoration funding allocations for the Open Ocean Restoration Area, including \$868.3M to protect and replenish living coastal and marine resources. The funding allocations are a result of the programmatic restoration planning effort and are defined in the Consent Decree.

Each TIG develops project-specific restoration plans for their respective restoration area, consistent with the funding allocations. A series of payments will be available to each TIG over the course of 15 years, proportional to the total amount allocated to each restoration area. Each TIG also identifies their priorities to meet our goals for Monitoring and Adaptive Management.

Slide 6: Open Ocean Activities Update

Gale

Next, we'll present more information about the Open Ocean TIG planning and restoration activities in 2019. You'll hear from other TIG representatives as well as several trustee subject matter experts during the presentation. Now I'll hand it over to Laurie Rounds, NOAA's Open Ocean TIG representative to provide an update on our activities in 2019.

Slide 7: Overview of 2019 Activities

Laurie

Thank you Gale. During 2019, the Open Ocean TIG completed several activities to advance our restoration goals. 2019 was marked by major accomplishments in selecting restoration projects to address injuries in the Open Ocean Restoration Area. In March of this year we completed Restoration Plan one that selected three projects to restore Birds and Gulf Sturgeon totaling \$16 million. And on December 10 we release our second restoration plan that selected 18 projects to restore Fish, Sea Turtles, Marine Mammals, and Mesophotic and Deep Benthic Communities with a total budget of almost \$226 million. Together these plans selected 21 restoration projects that will help address injuries from the DWH oil spill for all six restoration types in the Open Ocean Restoration Area.

During this intensive restoration planning effort, we also recognized the importance of advancing our Monitoring and Adaptive Management goals. We completed a strategy for Open Ocean Monitoring and

Adaptive Management that laid the foundation for how the TIG will develop, prioritize, and fund Monitoring and Adaptive Management activities that advance restoration planning and evaluation. We also selected three Monitoring and Adaptive Management Activities to address important information needs for Gulf Sturgeon and Marine Mammals. And we continued to implement the five projects approved during Early Restoration to address injuries to recreational uses at federally managed areas. During the presentation, we will present more information about all of these activities.

Slide 8: Open Ocean Funding Update

Laurie

This slide provides an update on the Open Ocean TIG's commitment of funds since our June Trustee Council annual meeting. It now includes funds committed to implement the restoration projects approved in the Open Ocean Final Restoration Plan 2 and three Monitoring and Adaptive Management activities approved in 2019. With these additional projects and activities, the Open Ocean TIG has committed about 26% or \$318 million of the \$1.2 billion allocated to:

- Implement five early restoration projects;
- To implement 21 projects approved in 2019 in our first and second restoration plans, which implement restoration for all 6 restoration types;
- To implement three MAM Activities; and
- To provide administrative oversight and comprehensive planning for the federal trustees within the Open Ocean TIG as well as across all TIGs.

As you can see, the Open Ocean TIG made substantial progress to meet our restoration goals in 2019. However, this represents the beginning of our restoration work to fully allocate restoration funds for all six restoration types.

Next, Eric Weissberger, NOAA's Monitoring and Adaptive Management coordinator, will provide an update on the Open Ocean TIG's Monitoring and Adaptive Management planning activities in 2019.

Slide 9: Monitoring & Adaptive Management Strategy

Eric

In May of this year the TIG released the first iteration of its MAM strategy, a document describing processes to help us fine-tune our restoration work, and promote effective and efficient use of restoration funding. The strategy lays out processes to assist with identifying and prioritizing information gaps and data needed to successfully plan, implement, evaluate, and adaptively manage Open Ocean restoration. It also describes how we will fill those gaps and coordinate activities with other Trustee Implementation Groups and science and restoration programs in the Gulf of Mexico. We are now following the procedures laid out in the strategy and developing our priorities for monitoring and adaptive management.

Slide 10: Monitoring & Adaptive Management Stakeholder Outreach

Eric

To get public input on our monitoring and adaptive management priorities, we held two outreach events, one at the Gulf of Mexico Oil Spill and Ecosystem Science (GoMOSES) conference in February and one in June in conjunction with the Restoration Plan 2 public meeting. Input provided by stakeholders is being considered as the TIG develops its MAM priorities. We will provide an update on MAM priorities at the 2020 GoMOSES conference.

Next, Ashley Mills the Department of the Interior's Open Ocean TIG representative will provide information about the TIG's restoration projects.

Slide 11: Open Ocean Restoration- Goal: Provide and Enhance Recreational Opportunities

Ashley

Thanks Eric.

For lost recreational use resulting from the oil spill, the restoration goals are to:

- Increase recreational opportunities such as fishing, beach-going, camping, and boating with a combination of ecological restoration and creation of infrastructure, access, and use opportunities; and to
- Use education and outreach to promote engagement in restoration and stewardship of natural resources, which could include education programs, social media, and print materials.
- In working to accomplish these goals, the Open Ocean TIG is conducting engineering and design, implementation, or monitoring of four Early Restoration projects that provide and enhance recreational opportunities. The Department of the Interior is the lead implementing trustee on these four projects. I'll provide an overview and update on the projects and then at the end of this presentation we'll show you where you can find more information.

Slide 12: Enhancing Recreational Opportunities

Ashley

The Beach Enhancement project removes asphalt and other road material scattered by storms and hurricanes over the Fort Pickens, Santa Rosa, and Perdido Key areas of Gulf Islands National Seashore, Florida District. The fragments of asphalt and road material range from quarter-inch pea size to 10-foot large slabs. In sensitive areas, removal is done by hand. This project is currently in progress, in its fourth year.

The Bike and Pedestrian Use Enhancements Project will enhance bike and pedestrian use in the Davis Bayou Area of Gulf Islands National Seashore, in Mississippi, to improve the safety of roadway users by construction of multiple-use trails. The project will widen the existing road surface on Park Road for 2.17 miles to accommodate bicycle and pedestrian trails. This project is in the Engineering and Design phase. Construction is expected to begin in 2021.

The Bon Secour National Wildlife Refuge Trail Enhancement Project repaired and enhanced the Jeff Friend Trail on the refuge. An aged boardwalk and gravel trail was repaired and improved to meet the standards of the American with Disabilities Act, to ensure safe public access and to enhance the quality of visitor experience. The project also included construction of an observation platform along the trail, and the widening of two parking spaces to better accommodate visitors who have physical disabilities. This project is complete and now in the monitoring stage.

Next is the Gulf Islands National Seashore Ferry Project, which we highlight on the next slide.

Slide 13: Project Highlight: Gulf Islands Ferry Project

Ashley

This project funded the purchase of two pedestrian visitor ferries for use between the City of Pensacola, Pensacola Beach, and the Fort Pickens area of Gulf Islands National Seashore in Florida. The two ferries, named Pelican Perch and Turtle Runner by local schoolchildren, have been in operation the past two summers. The Department of the Interior is the lead implementing Trustee, in coordination with the City of Pensacola and Escambia County.

Slide 14: Open Ocean Restoration- Goal: Replenish and Protect Living Coastal and Marine Resources
Ashley

Next, Jamie Reinhardt, NOAA's Fish and Water Column Invertebrates Restoration Coordinator will begin our overview of restoration projects that address the Open Ocean TIG's goal to replenish and protect living coastal and marine resources.

Slide 15: Reducing Bycatch and Mortality
Jamie

Thank you Ashley.

- The goals for Fish and Water Column Invertebrates are to restore for injuries from the spill by
 - Reducing direct sources of mortality, and
 - Increase the health of fisheries by providing fishing communities with methodologies and incentives to reduce impacts to fishery resources
- We'll accomplish this by decreasing bycatch and fishing mortality in various fisheries by partnering with the fishing community, which has already put substantial effort into reducing bycatch in the Gulf of Mexico. For example:
 - In the longline fishery for tuna & swordfish, we will engage with commercial fishermen to enhance fishing practices and tools that reduce bycatch and improve fishing efficiency
 - The Oceanic Fish Restoration Project is an early restoration project that's been on-going since 2017. As participants in the project, longline fishermen fish with alternative gear that catches some pelagic fish at a much lower bycatch rate. From 2017 and including the 2020 season, there have been 17 participants so far, many of them participants in multiple seasons.
 - The PLL Fishing Depth Optimization project will restore for bluefin tuna and other pelagic fish by identifying and sharing fishing practices that reduce bycatch in the longline fishery.
 - In the shrimp fishery, the Better BRDs project will partner with scientists and commercial fishermen to improve bycatch reduction devices that shrimpers use on their trawl nets.
 - In the recreational reef fish fishery, the Reduction of Post-Release Mortality from Barotrauma project will enhance the use of fishing tools to reduce post-release mortality of reef fish. We will distribute FDDs, promoting their use and educating recreational fishermen on best release handling methods. Additionally, we will collect more information to improve our understanding of post-release mortality in reef fish.
 - Multiple fisheries will benefit from the Hotspots project, which will use communication networks and mapping tools to assist commercial fishermen to avoid fishing in high bycatch areas. Our Phase I project will conduct a series of workshops with stakeholders and scientists to understand the opportunities for conducting such a restoration project, and compile information to determine the data requirements.

- All of the restoration projects for Fish and Water Column Invertebrates depend on the active participation of commercial and recreational fishermen.
 - Outreach & engagement with fishermen is very important to us and to the success of the restoration projects.
 - The project teams make efforts to include fishermen and other industry stakeholders throughout the project – from soliciting ideas to project development and implementation – to make sure that fishing communities are on-board with the project and to ensure that fishing communities benefit from the projects as well.
 - All the projects are non-regulatory, temporary, and voluntary which allows fishermen to choose to participate or not.

Next, Sara Wissmann, NOAA’s Sea Turtle Restoration Coordinator will provide an overview of two Sea Turtle projects.

Slide 16: Reducing Bycatch and Mortality

Sara

Thank you Jamie.

The goals for Sea Turtle Restoration are to restore for injuries from the spill by addressing primary threats to sea turtles in the marine and terrestrial environments. Primary threats include bycatch in commercial and recreational fisheries, acute environmental changes, loss or degradation of nesting beach habitat, and other anthropogenic threats in the various geographic and temporal areas within the GOM and Atlantic Ocean that are relevant to injured sea turtle species and life stages.

The OO Restoration Plan 2 will help accomplish this goal by working to decrease bycatch and mortality in two commercial fisheries in the Gulf of Mexico, the reef fish bottom longline and shrimp trawl fisheries.

Our project titled “Identifying Methods to Reduce Sea Turtle Bycatch in the Reef Fish Bottom Longline Fishery” will conduct a thorough analysis of existing fisheries observer data to identify cofactors associated with the bycatch of sea turtles. This analysis will help us identify voluntary practices that could potentially reduce the frequency or severity of sea turtle interactions with the fishery.

Our project titled “Reducing Juvenile Sea Turtle Bycatch Through Development of Reduced Bar Spacing Turtle Excluder Devices”, will work to develop and test new turtle excluder devices, also known as TEDs, with smaller bar spacing than the currently approved TED designs. The new designs will be developed with the goal of reducing the bycatch of small juvenile sea turtles that are able to fit through the current TEDs. This project would seek to make new TED designs available for voluntary use by industry, and involves activities such as the development of new TED prototypes, the captive rearing of loggerhead hatchlings, and the testing of various prototypes for both turtle exclusion and target catch retention.

Slide 17: Project Highlight: Increased Engagement With Shrimp Industry

Sara

Based on the public comments received on the Reduced Bar Spacing TED project and the Better BRDs Project, the Open Ocean TIG made changes to both projects to improve and increase stakeholder engagement.

The Reduced Bar Spacing TED project now includes two additional mechanisms for stakeholder engagement. We have added Stakeholder engagement meetings throughout the Gulf in the first and last years of project implementation. The meetings will provide an opportunity for the implementation team to inform the public of project plans and project findings, and provide a forum to solicit suggestions for next steps. We have also added a Stakeholder Workgroup for more direct industry participation. The Workgroup will be engaged throughout the project duration to provide input on the project testing, outcomes, and next steps.

Similar changes were made for the Better BRD project. The OO TIG has revised the project to include more stakeholder opportunities to solicit ongoing feedback as project details are developed. These meetings will help the implementation team to include in-depth fisheries knowledge, while evaluating the most promising opportunities for bycatch reduction.

Slide 18: Addressing Restoration Planning Needs

Sara

The OO Restoration Plan 2 also includes several projects with the goal of addressing Restoration Planning Needs.

I will walk through 4 planning projects for you next, the first 3 are sea turtle projects and the last is a marine mammal project.

Our first planning project is the Gulf of Mexico Sea Turtle Atlas – This project will develop a comprehensive database of GOM sea turtle data forming a 'GOM Sea Turtle Atlas.' The Atlas would provide restoration planners and resource managers with available key spatial datasets for understanding sea turtle presence, abundance, density and habitat use and will be an important tool to aid in restoration planning.

The second project is “Developing a Gulf-Wide Comprehensive Plan for In-water Sea Turtle Data Collection” – The goal of this project is to develop a Gulf-wide plan for standardized in-water sea turtle population surveys, which collect critical data to assess trends in sea turtle populations. This effort is an important first step to filling large data gaps with respect to sea turtle distribution, abundance, and survival rates to inform restoration planning, monitoring, and adaptive management.

The next project is “Developing Methods to Observe Sea Turtle Interactions in GOM Menhaden Purse Seine Fishery”. – The goal of this project is to work together with the industry through a project steering committee to develop effective observer methods that can improve the information collected about interactions with sea turtles and other protected species in the GOM menhaden purse seine fishery. The information gained from this project will allow NOAA to develop future restoration options involving effective voluntary practices and measures to reduce and avoid interactions in the future.

Our last planning project is called the “Compilation of Environmental, Threats, and Animal data for Cetacean Population Health Analyses”. – Similar to the sea turtle atlas, the goal of this project is to develop a platform that would provide user-friendly, web-based access to datasets that would assist restoration planners, responders, and conservation managers in the restoration and protection of marine mammals. It will also develop protocols to better integrate data collected across multiple partners. The platform will support restoration planning, prioritization, and implementation by making key data available to decision makers.

Next Laura Engleby, the Marine Mammal Branch Chief for NOAA's Southeast Region will provide an overview of Marine Mammal restoration projects focused on reducing impacts from key stressors.

Slide 19: Reducing Impacts from Stressors

Laura

One of several restoration goals for marine mammals is to identify and implement restoration activities that reduce key stressors to support resilient populations of cetaceans- dolphins and whales-in the Gulf of Mexico. These three Open Ocean Restoration Plan 2 projects will address known and major stressors to marine mammals, specifically- noise, vessel strikes, and large-scale disasters such as oil spills or major weather events.

The "Reduce impacts of anthropogenic noise" project has three primary and interrelated efforts that include: (1) working with experts and stakeholders on ways to advance noise reduction technologies towards testing and implementation; (2) conducting a noise risk assessment to identify the highest risk areas in the N. Gulf where restoration actions could most effectively prevent or reduce the negative effects of noise and (3) using passive acoustic monitoring arrays to continue baseline data collection that will inform restoration and monitor noise reduction outcomes.

To reduce the risk of vessel strike mortality, particularly for large whales, a risk analyses will be conducted to identify areas of relative concern for collision risk. Once high-risk areas are identified, the project will identify and develop partnerships, cultivate buy in from stakeholders, and implement the most effective and efficient activities for each high-risk area.

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. This third project includes conducting a Gulf-wide gap analysis of current capabilities, improving planning and protocols for marine mammal disaster response and investigating new tools and techniques to minimize or reduce cetacean injury and mortality.

Next, Kris Benson, NOAA's Mesophotic and Deep Benthic Communities Restoration Coordinator will provide an overview of the protection and management of injured deep-sea habitats.

Slide 20: Habitat Protection and Management

Kris

As they were defined in the Trustees' Programmatic Damage Assessment and Restoration Plan, the goals for restoration of Mesophotic and Deep Benthic Communities (MDBC) injured by the spill are to

- Restore mesophotic and deep benthic invertebrate and fish abundance and biomass.
- Actively manage these communities to protect against threats.
- Improve understanding to better inform management and ensure resiliency.

These goals are informed by a recognition of the importance of these habitats as part of the foundation of life and food webs in the northern Gulf of Mexico, important for a variety of commercially and recreationally valuable fish species, and including species that can be long-lived and slow growing, with 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.

The four selected alternatives for restoration of mesophotic and deep benthic communities comprise a portfolio that will be implemented over a 7-8 year period. The total estimated budget for the portfolio of selected alternatives is approximately \$126 million.

For the Mapping, Ground-Truthing, and Predictive Habitat Modeling project: knowing, or being able to reliably predict, where these habitats exist across the northern Gulf of Mexico is critical to prioritizing and undertaking protection and management activities in them and targeting locations for direct restoration. This project will document abundance and distribution of deep benthic communities; and will provide fundamental information to prioritize and support protection and management activities and to target locations for direct restoration.

For the Habitat Assessment and Evaluation project: like the mapping and ground-truthing project, habitat assessment and evaluation will fill critical data gaps to guide direct restoration and protection. This project evaluates sites for potential direct restoration and protection activities, at both injured and reference sites, documents ongoing injury to MDDBs from natural and anthropogenic threats, provides 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 establishes a baseline for health and condition to guide direct restoration and protection.

For the Coral Propagation Technique Development project: this pilot project will develop methods and techniques to effectively enhance coral recruitment and growth and to apply successful methods at a large scale for restoration. It will directly compensate the loss of MDDB corals and associated benthic and water column communities injured by the DWH oil spill.

And for the Active Management and Protection project: this project will accomplish outreach, education, and engagement activities and direct threat reduction efforts such as mooring buoy installations, lionfish removal, assessing threats from leaking and abandoned oil and gas infrastructure, and enhancing resource protection capacities. Importantly, this project will also serve as a conduit for information from all of the MDDB projects 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.

Slide 21: Project Highlight Mesophotic & Deep Benthic Communities

Kris

The phased nature of this portfolio is an important aspect of these projects. Now that Open Ocean Restoration Plan 2 is finalized, an initial 1-2 year implementation planning period is beginning, and it will focus across all of the projects on restoration outcomes and adaptive management and coordination of cross-cutting project requirements such as data management infrastructure and standards, coordination of vessel and vehicle platforms, and management of implementation mechanisms such as interagency agreements, grants, cooperative agreements, and contracts. Implementation planning would be followed by a 5-year implementation period and a final year of project evaluation and reporting.

Next, Ashley Mills, the Department of the Interior's Open Ocean TIG Representative will provide an overview of additional restoration projects focused on habitat protection and management.

Slide 22: Habitat Protection & Management

Ashley

Thanks Kris.

In our first Restoration Plan, the Open Ocean TIG approved three projects for implementation, the first three on this slide, and all are currently in progress and led by the Department of the Interior. Since approving these projects last spring, project managers have been working to coordinate with partners, purchase equipment, and make preparations to get these projects up and running.

The Common Loon restoration project will reduce mortality and increase reproductive success of common loons at breeding, nesting, and migration staging locations in Minnesota by focusing on restoration activities that include: acquisition and/or easements of lakeshore loon nesting habitat, enhancement of loon productivity by providing artificial nesting platforms in targeted lakes and engaging Minnesota lake associations in loon conservation activities, and, reducing exposure to lead-based fishing tackle. Since approving this project, project managers have been working to establish cooperative agreements with partners.

The black tern restoration project will protect 2,000 acres of wetland habitat and 1,000 acres of adjacent upland grassland habitat to enhance and improve breeding site selection and foraging conditions for black terns in more than 30 counties in North and South Dakota located in the Prairie Pothole Region. Conservation easement agreements will be implemented on a voluntary basis with participating landowners as part of ongoing U.S. Fish and Wildlife Service conservation programs in those states. It's been an incredibly wet fall across much of the Dakotas. Most wetland basins in the area are more than 100% full. Early snow conditions have provided additional snowpack that should be beneficial to settling black terns when they return in the spring. Since approving this project, project managers have been working to identify recent, active tern colonies and prioritize parcels that can be targeted for wetland and grassland easements.

Another project that was approved in the first restoration plan is a Gulf sturgeon project. This project will identify and characterize potential Gulf sturgeon spawning habitat in the Pearl and Pascagoula River systems; describe habitat accessibility and patterns of habitat use during spawning periods; determine the river of origin for juvenile sturgeon, and synthesize data needed to evaluate and prioritize Gulf sturgeon spawning habitat restoration projects such as in-stream barrier removal, spawning reef creation, or riparian restoration. Field work is anticipated to begin in spring 2020.

The Long-term nesting beach habitat protection project was very recently approved as part of a suite of projects in restoration plan two. We highlight this project on the next slide.

Slide 23: Project Highlight: Sea Turtle Long-term Nesting Habitat Protection

Ashley

The Long-term Nesting Beach Habitat Protection project meets all four of the Trustees' goals for sea turtle restoration. This project will protect valuable, high-density sea turtle nesting habitat through acquisition

of land from willing sellers near the Archie Carr National Wildlife Refuge on the Florida Atlantic coast. Archie Carr NWR hosts the highest density nesting beach habitat in the western hemisphere for loggerhead sea turtles. This area is the most significant area for green turtle nesting in North America and serves as increasingly important nesting habitat for leatherback sea turtles. These sandy shorelines at Archie Carr NWR serve as nesting habitat for sea turtles that spend a portion of their lives in the Gulf of Mexico.

The project seeks to protect approximately 20 miles of essential beachfront nesting habitat in perpetuity; reduce future land-based threats from development; and enhance sea turtle hatchling productivity. The stretch of beach upon which priority parcels are located have a hatchling production of nearly 850,000 loggerhead turtle hatchlings per year and over 340,000 green turtle hatchlings per year. Strategic protection of priority parcels will help minimize fragmentation, reduce risk of additional coastal armoring and contribute to overall sea turtle protection, conservation and management objectives. Coastal armoring includes things like riprap, rock walls, and sheet metal pilings.

Strategic land acquisition is a preferred coastal management technique for Archie Carr National Wildlife Refuge and the barrier island ecosystem. Archie Carr National Wildlife Refuge Partners, including Brevard County, Indian River County, the Sea Turtle Conservancy, and others important Partners are extremely supportive of this project and have worked together to help identify parcels for acquisition. This project when combined with a sister project funded through National Fish and Wildlife Foundations Gulf Environmental Benefit Fund at \$4.5 million, becomes \$11.5 million towards accomplishing goals for sea turtle conservation and management.

Slide 24: Open Ocean Restoration- Goal: Monitoring and Adaptive Management

Ashley

Next, we'll provide an update on activities to meet our Monitoring and Adaptive Management goals.

Slide 25: Addressing Monitoring & Adaptive Management Needs

Ashley

This year the TIG approved three monitoring and adaptive management (or MAM) activities. Two of these focus on Gulf sturgeon, one examining population dynamics and habitat use of juvenile sturgeon and the other gathering information on sturgeon population status and trends as a baseline to evaluate restoration. I'll present more information about the sturgeon activities in the next slides.

The third MAM activity develops a framework to examine the effects of multiple stressors, such as noise, shipping traffic, and interactions with fisheries, on sperm whales and oceanic dolphins. The framework will be used to evaluate the effects of restoration actions on the injured stocks, supporting prioritization of potential restoration activities.

Slide 26: MAM Activity Highlight: Juvenile Sturgeon

Ashley

The Juvenile Gulf sturgeon monitoring and adaptive management activity will identify important estuarine and riverine habitats, and establish baseline metrics to inform restoration prioritization and evaluate restoration success for juvenile Gulf sturgeon.

We will do this by evaluating estuarine habitat use patterns by juvenile Gulf Sturgeon and trends in juvenile sturgeon recruitment, growth, survival, genetics and kinship across seven river systems where Gulf sturgeon occur. These include the Pearl, Pascagoula, Escambia, Yellow, Choctawhatchee, Apalachicola, and Suwannee river systems. The maps on this slide shows the locations of the seven river systems across the northern Gulf of Mexico, from Louisiana to Florida. The red color on the maps indicates the focal areas for juvenile Gulf sturgeon work under this activity.

Since this MAM activity was approved last summer, project managers have been working to establish cooperative agreements with project partners, purchase equipment and supplies, design the telemetry array, develop standard protocols for field work and data handling, and plan for coordination and training workshops to occur in 2020. We anticipate that data collection will begin in May 2020.

Slide 27: MAM Activity Highlight: Sturgeon Population Status & Trends

Ashley

We approved funding for another Gulf sturgeon monitoring and adaptive management activity, titled Informing Gulf Sturgeon Population Status and Trends as a Baseline to Evaluate Restoration. This activity includes conducting a Gulf sturgeon stock assessment and developing a standardized data collection and storage program for Gulf sturgeon data.

Since this MAM activity was approved last summer, the cooperative agreement with partners has been finalized and project managers have been working to purchase equipment and supplies, coordinate workshops for early 2020, and begin preliminary data analysis. The complete database is anticipated in early 2020.

Slide 28: For more information- Website, Interactive Map

Ashley

Next, Mark Defley with the US Department of Agriculture will provide an overview of how you can find more information about the Open Ocean TIG's activities including all the projects and monitoring and adaptive management activities we've presented today.

Slide 29: Where to Find More Information

Mark

The *Deepwater Horizon* Trustee Council website, which is gullspillrestoration.noaa.gov, serves as the primary source of information for Deepwater Horizon NRDA restoration information. There, you'll find the latest updates on planning for all of the restoration areas, a portal to submit project ideas, detailed data on ongoing projects, restoration plans, and more. Be aware that the home page photos change depending on the latest news updates, but the website's navigation remains the same.

Slide 30: How to Access Open Ocean Project Information

Mark

Also from the home page, in the "Projects Near You Box" you can click the "View Project Details" button, shown here with the blue arrow, to explore our interactive map to see details on restoration projects. This tool provides a map of all the projects approved by the NRDA Trustees and allows you to search by Restoration Area and open or download project data. Once you locate a project you would like to read

more about, you can select it to easily access project specific information. This includes project progress reports, budgets, and project monitoring and adaptive management plans

Slide 31: Questions?

Mark

I'll now turn you back over to Stephen Heverly with NOAA to guide us through the questions and answers portion of the meeting.

Slide 32: Questions

Stephen

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 plug 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. Next, we'll pass them on to someone on our team that can best respond, and they'll provide an answer if they can. We may not get to all of the questions, but we'll try to get to as many as possible.

Here we go...

Slide 33: Thank you

Gale

Thank you for your time and interest in Open Ocean Restoration.

We'll post the presentation and written transcript from today's webinar to the Trustee's website in the next few days. To find the meeting materials, please go to gulfspillrestoration.noaa.gov, and click on the Open Ocean icon, which is shown in the upper right of this slide.

Finally, if you're not signed up for our email blasts, please consider signing up. Aside from visiting the website, it's the best way to stay up to date on all of the Deepwater Horizon NRDA restoration activities. You can easily do that on our home page by scrolling down to the green boxes and clicking the 'sign up now' button.

We'll now conclude our annual meeting webinar. Thank you all very much for participating.