Open Ocean Restoration Area 2022 Annual Meeting and Loon Special Session Script and Q&A

October 6, 2022 Webinar – Presentation Script

Slide 1: Open Ocean Restoration Area Annual Meeting and Loon Special Session
Speaker: Lena Flannery

Hi everybody, while we're waiting to get started, please fill out this poll so we can learn more about who is joining us today.

Thanks for those responses, we're excited to have folks from so many different backgrounds with us today.

Message in the chat: Welcome to the OO TIG Annual Meeting. We will get started shortly.

Slide 2: Webinar Participation
Speaker: Lena Flannery

Thank you everyone for joining today's Open Ocean Trustee Implementation Group webinar. I'm Lena Flannery, a contractor with the Department of the Interior. I'm helping facilitate the webinar today.

Before we begin the presentations, I'd like to quickly run through some webinar logistics. You should be able to see the control panel on the right-hand side of your screen, which is shown on this slide.

Note that only presenters will be heard during the webinar; all attendees will be muted.

Please also take a look at the Questions box at the bottom of the control panel, where the green arrow is pointing. If you have questions about the presentation topics along the way, we encourage you to enter those in the Questions box at any time. You will also have an opportunity to enter questions at the end of the presentation, but if you plug them in early, it can help us organize them ahead of time.

We'll also post the presentation slides and a transcript of the webinar to the https://www.gulfspillrestoration.noaa.gov/ website in a few days.

Now I'll turn it over to Treda Grayson to go through our agenda for today.

Message in the chat: Open Ocean Restoration Area webpage:
http://www.gulfspillrestoration.noaa.gov/restoration-areas/open-ocean/

Slide 3: Webinar Overview
Speaker: Treda Grayson, USEPA

Thank you, Lena, and thank you everyone for joining today's Open Ocean Trustee Implementation Group webinar. I'm Treda Grayson with the US Environmental Protection Agency. I'd like to start by saying that our hearts go out to everyone impacted by the devastating effects of Hurricane Ian. Our thoughts are with our colleagues, families, and everyone in the communities that were affected as they begin the long road to recover and rebuild.

We planned today's webinar to provide our annual update about restoration for the *Deepwater Horizon* Open Ocean Restoration Area. During the webinar, we'll share information about our planning work, approved restoration projects, and monitoring and adaptive management activities. We'll also save time to take your questions. Following the annual meeting portion of the webinar, we have a special session to share information about the ways our project to restore breeding habitat for common loons is engaging communities in restoration.

Slide 4: *Deepwater Horizon* Incident
Speaker: Treda Grayson, USEPA

We may have a few people joining us today that are not familiar with the history of our work, so I'd like to provide a short overview of the *Deepwater Horizon* incident.

On April 20, 2010, the *Deepwater Horizon* oil rig exploded, caught fire, and sank, leading to the largest offshore marine oil spill in US history. Approximately 134 million gallons of oil were released into the deep ocean over nearly three months. Surface oil slicks covered more than 43,000 square miles of the Gulf—an area roughly the size of the state of Virginia. The oil washed onshore, impacting at least 1,300 miles of shoreline habitats. The spill and associated response actions resulted in injuries to diverse species, habitats, resources, and ecological functions. Overall, injuries affected such a broad array of natural resources and ecological services, over such an expansive area, that they caused an ecosystem-level injury to the northern Gulf of Mexico.

Slide 5: *Deepwater Horizon* NRDA Settlement
Speaker: Treda Grayson, USEPA

The *Deepwater Horizon* Natural Resource Trustees are in the first decade of a multi-decade process to plan and implement a comprehensive ecosystem restoration plan that includes the five goals shown on this slide. In 2016, the Trustees reached a settlement resulting from the Natural Resource Damage Assessment (NRDA) process. The settlement resolved BP's liability for natural resource injuries caused by the oil spill. Part of the settlement requires BP to pay up to $8.8 billion over 15 years to federal and state Trustees for the purposes of restoring injured natural resources and the services they provide. Based on the kind and extent of injuries caused by the spill, the settlement has been allocated among the Trustees' restoration goals as shown on this slide.

Slide 6: Open Ocean Trustee Implementation Group
Speaker: Treda Grayson, USEPA

The Open Ocean Trustee Implementation Group, referred to as a TIG, is one of seven TIGs established to conduct restoration for the *Deepwater Horizon* NRDA. The four federal natural resource Trustees – NOAA, DOI, EPA, and USDA – serve on the TIG. We also coordinate with the five Gulf state Trustees, especially when restoration overlaps state jurisdictions. The TIG is responsible for developing project alternatives that are proposed in draft restoration plans and engaging the public, especially during restoration planning. Based on public input, we select and implement restoration projects and conduct monitoring and adaptive management. The Open Ocean Restoration Area was allocated $1.2 billion which, as shown by this donut chart, includes approximately $868 million to restore birds, sturgeon, oceanic fish and invertebrates, sea turtles, marine mammals, and deep-sea coral communities.

Slide 7: Open Ocean Funding Update
Speaker: Treda Grayson, USEPA

The restoration allocation is received in annual payments that began in 2017 and will continue through 2031. The Open Ocean TIG has received approximately $518 million of its $1.2 billion allocation. As of May 2022, we have committed over $340 million for projects and activities to achieve our restoration goals.

Next, I'd like to turn it over to Laurie Rounds to provide an update on our restoration work.

Slide 8: Restoration Planning and Projects
Speaker: Laurie Rounds, NOAA

Thank you, Treda, and thank you all for joining today. I'm Laurie Rounds and I represent NOAA on the Open Ocean TIG. I'll provide an update on our restoration planning activities and projects. As a reminder, you can enter your questions into the Questions box anytime and we will put those into a queue to answer after the presentation.

Slide 9: Open Ocean Restoration
Speaker: Laurie Rounds, NOAA

The Open Ocean TIG has approved a total of 30 projects: 26 restoration projects and four monitoring and adaptive management activities. As you can see from the map, our projects are implemented throughout the Gulf of Mexico. Some projects are also implemented outside the Gulf region, in areas where we can achieve the greatest restoration benefits for the species that were injured. For example, during our special session today you'll hear more about one of those projects that is working in Minnesota to restore common loon nesting habitat.

Five of our projects were selected prior to the settlement, during Early Restoration; of these, we completed two projects in 2019 to restore recreational uses on federal lands in Florida and Alabama. And we anticipate completing three more projects, the two remaining Recreational Enhancement projects and the Oceanic Fish Restoration project, over the next year to 18 months. Most of our projects, 21 restoration projects and three monitoring activities, were approved in 2019. These are currently in progress or beginning implementation work now. We recently developed a fourth monitoring activity that we'll talk about later in the presentation.

Unfortunately, there are too many projects to go into detail about each one during today's webinar, so we hope you will read the progress reports published this past June to learn more about our work. We have shared a link in the chat to where you can find the reports.

Message in the chat: Link to annual progress reports:
https://www.gulfspillrestoration.noaa.gov/2022/05/2021-annual-reports-include-26-new-projects-more-than-270-total

Slide 10: Restoration Plan 3
Speaker: Laurie Rounds, NOAA

I'd also like to provide an update on development of our third restoration plan, which is focused on seabird species that were injured by the spill. Several seabird species were heavily impacted in the open water, but these seabirds may only over-winter or rarely spend time in the Gulf region. Northern gannets and Audubon's shearwaters are two examples. So, we are drafting a plan to propose a range of restoration techniques that will bring the greatest restoration benefit for seabirds by reducing predation on nesting habitats, re-establishing breeding

colonies, and reducing mortality from threats such as fisheries bycatch. Project ideas being developed for the draft restoration plan range from areas in Northeastern Canada and the US to the Caribbean and South Atlantic region.

We anticipate that Draft Restoration Plan 3 will be ready for public review in early 2023. We'll hold a public meeting during the comment period to present the range of projects in the draft plan and provide opportunities for public comment. After considering all the public comments we receive, we'll finalize the plan and then project implementation can begin.

Next, I'll share some highlights from a few of our current restoration projects.

Slide 11: Open Ocean Restoration Highlights
Speaker: Laurie Rounds, NOAA

I'd like to start with some news about several expeditions being led by NOAA and DOI for the four projects to restore Mesophotic and Deep Benthic Communities. A series of eight at-sea expeditions launched in April this year and will continue through October. Because of the many challenges to restoring these deep-sea habitats, the projects included a two-year implementation planning phase. Important outcomes from the planning phase included detailed work plans and agreements with several partners for the expeditions. The work plans also incorporated results from an input process held last year that identified stakeholder priorities. We recently published a report about the priorities identified, and there's a link to it in the chat if you'd like to learn more.

This year's expeditions focused on returning to the area around the *Deepwater Horizon* oil spill at the well-head and in nearby geologically diverse areas called the Pinnacles Trend and DeSoto Rim. They also collected data at sites that were not directly impacted to provide reference conditions and develop targets for restoring these complex habitats. Across the expeditions, science teams conducted high resolution mapping of more than 2,000 miles of seafloor that will document habitat distribution and abundance. They also:

- Collected samples of corals for propagation and for biological and genetic studies;
- Conducted video surveys of coral habitats;
- Collected sediment cores to understand ecosystem health and the biological needs of species we're working to restore; and
- Collected a range of physical, chemical, biological, and genetic data that will help characterize these deep-sea communities.

The projects will conduct at-sea expeditions annually over the next four years. They also include a final year to synthesize and assess our progress in advancing the science and techniques needed to restore, protect, and manage mesophotic and deep benthic communities. Reports

and data from the projects will be made available both through the *Deepwater Horizon* restoration portal and NOAA's publications repository.

Message in the chat: Priority Areas Suggested by Stakeholders for Restoration and Protection of Mesophotic and Deep Benthic Communities:
https://repository.library.noaa.gov/view/noaa/45103

Slide 12: Open Ocean Restoration Highlights
Speaker: Laurie Rounds, NOAA

Other Open Ocean projects are working to reduce bycatch to help restore oceanic species. Bycatch is the unintentional catch of or interactions with non-targeted species. The Trustees are working with partners in the Gulf shrimp fishery to select, test, and voluntarily adopt new devices that will reduce bycatch and benefit fish and sea turtles impacted by the spill. One project is working to reduce finfish bycatch by developing better bycatch reduction devices. Through dockside outreach, the project identified and began testing three candidate devices. Successful candidates will go on for more testing by shrimp fishers to determine their effectiveness.

We're also implementing a project to identify new designs for Turtle Excluder Devices, often called TEDs. The project's goals are to design TEDs that are more effective in excluding small-bodied turtles than current designs while minimizing impacts on shrimp harvest. A TED is a simple grid made of metal bars that fits into a trawl net. Small animals, such as shrimp, pass through the grid into the mesh bag at the end of the trawl and are caught. When larger animals like sea turtles enter the trawl net, they are redirected by the TED and are able to exit through an opening either at the top or bottom of the net.

This summer, the project completed a first round of testing for seven prototype TED designs with narrower bar spacing. Early results from these tests show promise to dramatically improve the effectiveness of TEDs for small turtles. The three most promising narrow-bar TED prototypes will move on to catch retention testing to evaluate their ease of use and performance during fishing operations.

You can learn more about these projects on our website. We also provided a link to more information and reducing bycatch from NOAA, including a podcast about these and other *Deepwater Horizon* projects.

Next, I'd like to turn it over to Melissa Carle to provide an update on our monitoring and adaptive management activities.

Message in the chat: Link to Dive in with NOAA Fisheries bycatch podcast:
https://www.fisheries.noaa.gov/podcast/reducing-bycatch-through-innovation

Slide 13: Monitoring and Adaptive Management
Speaker: Melissa Carle, NOAA

Thank you, Laurie. I'm Melissa Carle, and I'm NOAA's team lead for Monitoring and Adaptive Management for *Deepwater Horizon* restoration. I'll provide an update on our monitoring activities. As a reminder, you can enter your questions into the Questions box anytime and we will put those into a queue to answer after the presentation.

Slide 14: Monitoring & Adaptive Management
Speaker: Melissa Carle, NOAA

We continue to implement three Monitoring and Adaptive Management activities that were approved in 2019. However, the TIG has also been working to address additional information needs and gaps that were identified in our Monitoring and Adaptive Management Strategy. Earlier this year, we started to develop new projects to identify and assess indicators of restoration progress and synthesize data to help us understand the cumulative outcomes and impact of our restoration work. We're also developing new projects to identify stressors and where they may overlap with areas used by multiple open ocean species. And finally, we're considering effective approaches to analyze data and identify areas that are highly valuable or productive for ocean resources. We anticipate developing these new Monitoring and Adaptive Management activities over the next several months and will release implementation plans through the Gulf Spill Restoration website. Next, I'd like to share an update about a recently approved monitoring activity.

Slide 15: Monitoring & Adaptive Management
Speaker: Melissa Carle, NOAA

The TIG recently approved a new Monitoring Activity called "Vessel Surveys for Abundance and Distribution of Marine Mammals and Seabirds." This activity was selected to resolve critical information gaps in marine mammal and seabird abundance and distribution. The work is designed to provide data needed to interpret and verify patterns found through earlier surveys conducted by the Gulf of Mexico Marine Assessment Program for Protected Species, often shortened as GoMMAPPS.

For example, earlier surveys found possible changes in abundance and occurrence of small whales and oceanic dolphins. This new project will verify whether those changes have persisted and will validate spatial models used to plan restoration. For example, if the sperm whale population has moved further west than expected, we might prioritize efforts by our projects to reduce vessel strikes or noise impacts in the western Gulf.

This monitoring activity is also important to our work to restore seabirds. More than 30 of the 93 injured bird species were seabirds, which use the open waters of the Gulf. However, there are critical information gaps for restoring seabirds. This new monitoring activity will build on previous GoMMAPPS seabird surveys to collect data on seabird abundance and distribution and how these factors may change across seasons and years.

We're excited to be able to leverage the availability of one of NOAA's research vessels to conduct two summer surveys in 2023 and 2024. NOAA and DOI will conduct the surveys and data analysis over this three-year project. To learn more about the work to be conducted, please see the recently released implementation plan using the link in the chat.

Next, Jon Morton will go over how you can access project information on our website.

Message in the chat: Open Ocean Trustees Release Plan for At-Sea Surveys of Gulf Seabirds and Marine Mammals: https://www.gulfspillrestoration.noaa.gov/2022/08/open-ocean-trustees-release-plan-sea-surveys-gulf-seabirds-and-marine-mammals

Slide 16: How to Access Open Ocean Project Information
Speaker: Jon Morton, USDA

Thank you, Melissa. Hello everyone. I'm Jon Morton with the US Department of Agriculture. I'd like to go over some of the features of the Gulf Spill Restoration website and how you can get more information about the great restoration projects you heard about today. From the home page, in the "Projects Near You" box, you can click the "View Project Details" button, shown here with the purple arrow. Explore our interactive map to see details on restoration projects, using the link in the chat. This tool provides a map of all the projects approved by the 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. Project records include progress reports, budgets, and monitoring and adaptive management plans.

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.

Thank you for your attention. Next, we look forward to answering your questions. I'll turn it back over to Lena Flannery now.

Message in the chat: For reference you can find information about our projects here: https://www.habitat.noaa.gov/storymap/dwh/?openOcean

Slide 17: Questions
Speaker: Lena Flannery

Thanks, Jon. Hello again, this is Lena Flannery and I'll help to moderate the Q&A session. 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. I'll give a quick review of how you can enter your questions.

Slide 18: Questions
Speaker: Lena Flannery

Questions can be entered into the Questions box at the bottom of the GoToWebinar control panel. We'll pass them on to someone on our team that can best respond. We'll go ahead and start with some of the questions we've gotten so far.

[See Summary of Questions and Answers for the Q&A portion of the webinar.]

Thank you for your questions for the Open Ocean TIG. Now I'd like to introduce Ashley Mills to begin our special session on loons. And as a reminder if you have any questions related to loons, please enter those into the questions box at any time.

Slide 19: Engaging Communities in Restoration: Restoring Common Loons in Minnesota
Speaker: Ashley Mills, DOI

Thank you, Lena, and good afternoon, everyone. I'm Ashley Mills. I serve as the Department of the Interior Representative for the Open Ocean Trustee Implementation Group.

Today, in this interactive special session, we will shine a light on partnerships and public engagement for the Restoration of Common Loons project. And, as part of this session, we would like to hear from you! We have a couple poll questions to ask you at the end of the presentation today, and we'll have some time to answer any questions you may have.

We will begin this session with a brief description of loons and why we're implementing this project, and then introduce some of the members of the loon project team to focus on community engagement aspects.

Slide 20: Bird Connections to Gulf Habitats
Speaker: Ashley Mills, DOI

Many bird species spend part of their lives in the Gulf of Mexico, during migration or over the winter months, and then migrate to other areas to nest, as the image on this slide indicates.

Common loons spend their winter months in the Gulf of Mexico and then migrate north to nest in Minnesota, Wisconsin, Maine, and Alaska, as well as Canada, primarily on lakes in coniferous forests.

Common loons were one of the bird species injured by the *Deepwater Horizon* incident. At least several hundred individual loons were injured or died because of the spill. As an oil pollution incident, the *Deepwater Horizon* oil spill is subject to the provisions of the Oil Pollution Act. A primary goal of the Oil Pollution Act is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving an oil discharge.

The Open Ocean Restoration Area addresses restoration for species throughout their life stages and geographic ranges. This means we are using some of the Open Ocean Restoration Area funds for restoration projects outside of the Gulf of Mexico when there is a strong potential to restore for the injury to a particular species.

Slide 21: Restoration of Common Loons in Minnesota
Speaker: Ashley Mills, DOI

The Common Loon project is a great example of this. It focuses on restoring and conserving loon nesting habitat and preventing incidental bird mortality. Project activities on the nesting grounds directly address primary threats to common loons, such as habitat loss, human disturbance, and exposure to toxic lead-based fishing equipment.

Our goal is to reduce mortality and increase reproductive success of common loons at their nesting areas, using proven techniques known to minimize threats to loon survival and reproduction. This project is highly likely to benefit loons by ultimately creating more baby loons which can then grow and reproduce as well.

So that is why we are doing this project in Minnesota, one of the primary areas where common loons nest. We want to create more baby loons that can grow and migrate down to the Gulf for the winter.

Now, Kate Healy of the Fish and Wildlife Service (FWS) will join us to describe more of the project details.

Slide 22: Restoration of Common Loons in Minnesota
Speaker: Kate Healy, USFWS

Hello, my name is Kate Healy. I am a Fish and Wildlife Biologist with the Gulf Restoration Office, stationed in Fairhope, Alabama, and one of two Project Managers collaborating with our project partners in the state of Minnesota to help implement this project on the ground.

So how do we restore a bird injured by the *Deepwater Horizon* Oil Spill? Especially one that doesn't breed or nest in the Gulf of Mexico? As Ashley stated, the OO TIG can implement restoration activities throughout a bird's life stages and geographical range. That is how we found ourselves in the state of Minnesota. Studies show that roughly 67% of the adult population of common loons in the contiguous United States breed in the Upper Midwest.

Building on a long history of habitat management and citizen-based support for common loon conservation, we are collaborating closely with the Minnesota Department of Natural Resources (DNR) to employ restoration techniques that enhance loon reproductive success. These include acquisition of lakeshore loon nesting habitat and habitat enhancement, which entails placement of artificial nesting platforms, and outreach to lake associations to develop loon conservation plans. To date, project partners at the Minnesota DNR have identified 20 suitable land parcels for acquisition, identified 45 active loon territories for artificial nesting platform placement, drafted 80 loon-friendly lake association plans, and presented project details and objectives at 25 lake associations.

Slide 23: Loon Restoration Project Team
Speaker: Kate Healy, USFWS

To help implement restoration activities on the ground, it is important to engage local subject matter experts and state agencies intimately involved in common loon conservation and management. Our project partners include the Minnesota Department of Natural Resources, Minnesota Pollution Control Agency (MPCA), US Geological Survey (USGS), Upper Midwest Environmental Sciences Center, and the FWS Minnesota-Wisconsin Ecological Services Field Office.

Next, two of our project partners from the Minnesota Pollution Control Agency will present details on how we are working to reduce loon exposure to toxic, lead-based fishing equipment through the Get The Lead Out program, and the creative things we've been doing to overcome some of the challenges during the COVID-19 pandemic.

I'd like to turn it over to Reena Bowman, our FWS Project Manager stationed at the Minnesota-Wisconsin Ecological Services Field Office, to introduce our project partners from the Minnesota Pollution Control Agency.

Speaker: Reena Bowman, USFWS

Thank you. It is my pleasure to introduce the two Minnesota Pollution Control Agency Program Coordinators for the Get The Lead Out project. Kelly Amoth is a graduate of the University of Georgia with degrees in English and Ecology. Prior to joining the program, she worked in environmental education as a naturalist in the Twin Cities area. Steven Yang is a graduate of Duke University with a master's degree in Environmental Management. His graduate research

focused on communicating fish consumption advisories to vulnerable communities in Wilmington, North Carolina. I'm now going to pass it over to Kelly to begin the special session.

Slide 24: Lean and Loons: A Toxic Relationship
Speaker: Kelly Amoth, MPCA

Thanks, Reena, and thanks everyone for inviting us today to share about the work we're doing here in Minnesota to increase awareness about the danger of lead fishing tackle to loons and our effort to help motivate behavior change to using lead-free alternatives.

Slide 25: Species of Focus
Speaker: Kelly Amoth, MPCA

Our special session today is about loons, a topic that we're always excited to talk about and that most Minnesotans are very excited to talk about as well. Loons are iconic here in our state. As I tell students all the time, we're the only state that has the loon as our state bird. The common loon population is estimated to be about 12,000. Steven and I have gone all across the state in the last two years and haven't met anyone yet who doesn't love loons.

We're very used to seeing loons in their breeding plumage, in the photo on the left. But we also know that they are headed to the Gulf, so keep an eye out for their winter plumage as they begin their migration journey soon.

Slide 26: Migration of Common Loons
Speaker: Kelly Amoth, MPCA

Post-*Deepwater Horizon*, there were many research projects to assess the damages of the oil spill. One that resulted in the work that we are doing was with the USGS Office in Wisconsin with Kevin Kenow and his team to pinpoint the migration patterns of Minnesota loons.

His team caught loons at night and inserted satellite transmitters into them to pinpoint where they migrate and show that they were affected by the *Deepwater Horizon* oil spill and were there when the oil spill happened. They showed that we need to work to recover and restore their population here in Minnesota.

Slide 27: What and How Loons Eat
Speaker: Kelly Amoth, MPCA

Here in Minnesota, we're the land of over 10,000 lakes, and our lakes are filled with fish, which is great for loons because they are piscivores (fish eaters). They are also visual predators, so

they need clean, clear water. We often try to have students imagine what it was like in those days post-*Deepwater Horizon* when the water was filled with oil and they couldn't see anything.

There are two big factors that make loons more susceptible to lead poisoning, their diet of fish and their ability to dive all the way down to the bottom of lakes.

Slide 28: Lead Ingestion
Speaker: Kelly Amoth, MPCA

There are two primary ways that loons ingest fishing tackle, the first of which is by going after fish. Here in Minnesota, we love to fish. The Minnesota DNR's latest numbers are that there are 1.4 million licensed anglers in Minnesota, which is about a quarter of our population. So, we need anglers to know that the tackle they are using can be dangerous to loons.

A loon will ingest fishing tackle when it eats fish that has tackle attached to or inside of it. Sometimes fishing line can break off with the tackle when fish get away from anglers. This tackle can be dangerous to loons if they ingest the fish. We've also heard of loons sometimes even striking directly at lures while people are fishing.

Slide 29: Lead Ingestion
Speaker: Kelly Amoth, MPCA

The second way that loons ingest fishing tackle is when they are picking up lead weights that have fallen off your line or broken away. Loons need to swallow rocks or small pebbles to help digest their food in their gizzard. They will sometimes inadvertently pick up lost fishing tackle as well.

Those are the two big ways that loons can ingest fishing tackle. Now I'll pass it over to Steven to see if you can tell the difference between pebbles and fishing tackle.

Slide 30: Is it a rock or a split shot?
Speaker: Steven Yang, MPCA

Thanks, Kelly. With that, we're going to give you a little challenge to see how many lead split shots you can find among pebbles.

Split shots are in the photograph on the top, they're lightweight with little slits in them. The idea is that you put your line in the slit and attach it, but they can get lost pretty easily if they slip off or unravel. They end up disappearing into the lake, but they're very similar in shape and size to the pebbles that loons need for their gizzards.

I'll give you ten seconds to find how many split shots are among these pebbles, and then we'll reveal the answer on the next slide.

Slide 31: Is it a rock or a split shot?
Speaker: Steven Yang, MPCA

There are nine split shots in the photo. If you counted less than nine, you may have mistaken some split shots for rocks, and if you counted more than nine, you may have mistaken some rocks for split shots. Either way, you can see how it's very easy for a loon to mistake split shots for the pebbles they need due to the similar shape and size.

Slide 32: Lead of any size is fatal
Speaker: Steven Yang, MPCA

Large lead is problematic too. Once a loon ingests lead tackle, the acid in its digestive system breaks down the lead, which causes it to enter the bloodstream and ultimately cause lead poisoning. It's estimated that 25% of adult loon deaths in the United States are caused by lead poisoning from ingesting lead tackle.

Lead poisoning is not pretty at all for loons. It's a very slow and painful death. A loon with lead poisoning behaves very strangely and is also very weak. Symptoms can include tremors, loss of balance, gasping, and limited flying, swimming, and eating abilities. Obviously, the loon with lead in it is jeopardized, but so are the chicks or potential future chicks. Lead-poisoned loons can't mate or nest like usual. If they have chicks, they can't take care of them or protect them as well too. Lead poisoning will kill a loon in just two to three weeks. Lead-poisoned loons aren't able to retreat to land well, and if they do, they usually stay hidden, so they are seldom found. Usually, loons do not display symptoms until lead is already at toxic levels in their bloodstream. At that point, it's almost always too late, and the loon may have to be humanely euthanized.

Slide 33: Lead-Free Options
Speaker Steven Yang, MPCA

The death of loons and other wildlife species is easily preventable by using non-toxic alternative options. Our program talks about the dangers of lead fishing tackle, but we also want to highlight the many alternatives that are out there.

You can see the list of alternatives on the top of the slide. All the tackle in these photos is lead-free. There's a variety of tackle out there that is lead-free, and you can see here that they look just like any other tackle we might find in the store. They also perform very similarly to lead

tackle as well. Tungsten even performs much better – it's denser, more sensitive, and sinks faster. Lead is a soft metal, so these alternative metals are harder and longer lasting.

We have a list of over 100 lead-free tackle retailers on the Internet, throughout the United States and Canada. You can access it through the QR code or the link in the chat.

And with that, I'll hand it off to Kelly to talk about the program's goals.

Message in the chat: Lead-free retailers list: www.pca.state.mn.us/air-water-land-climate/where-to-buy-lead-free-tackle

Slide 34: Pre-Pandemic Annual Goals
Speaker: Kelly Amoth, MPCA

Thanks, Steven. When we started our work in September of 2020, we were 100% teleworkers. And we were given all of these goals for talking about this issue and making a difference in Minnesota, from education and outreach to collecting lead and getting a foot in the door of bait and tackle stores. We were faced with the challenge that a lot of these things, from teaching kids in classrooms to doing tackle exchanges at stores or sports shows, were in-person events.

We couldn't get in front of the public, so we had to take on an attitude of pivoting, adapting, and finding new and creative ways to accomplish these really important goals and get the message out about the dangers of lead. We'll share some of the things that we have been doing in the last few years.

Slide 35: Continuous Adaptation: Education
Speaker: Kelly Amoth, MPCA

Education, like everything else, had to go virtual. We got the word out to teachers that we would be happy to come into their classrooms virtually for 30-45 minutes to talk about this issue with their students. In our program, we've reached over a thousand kids virtually, from kindergarten to 12th grade.

We worked with teachers to find out how we could make our work meaningful to what they were teaching in their curriculum, from the water cycle to ornithology or learning about lead in chemistry class. We made it happen, and thankfully, starting this past spring, we were able to start transitioning back to in-person school outreach, which was really fun.

A big audience of our program is youth, so it's important to get the word out to youth anglers in Minnesota. In the summer of 2021, we started visiting summer camps in the Twin Cities area that were teaching kids how to fish. We brought small tackle kits with us that were packed with lead-free tackle to get them started as hopefully lifelong lead-free anglers. Steven and I acknowledge that there are some price barriers to making the transition to lead-free tackle,

especially for kids. So, if we can get as much lead-free tackle into their hands as possible, we're going to do it.

Slide 36: Continuous Adaptation: Outreach
Speaker: Kelly Amoth, MPCA

The other big component of our outreach efforts is through social media communication efforts. We use social media to reach people when we can't be in front of them at in-person events and get the message out about this issue.

We use our social media platform for three different storylines. People love to see pictures of loons, so we always post information about loons. We also promote lead-free manufacturers. As Steven shared, we have that list of over 100 in the country and in Canada, and we want people to spend their money at those businesses. We do a promotion called Manufacturer Monday to highlight different businesses. We also have a lot of call-to-action posts about how, where, and why people should recycle their lead tackle.

We also did lots of radio and print interviews and magazine advertising to let people know that this program was back and that we're working hard to tell people what's happening with lead fishing tackle.

Message in the chat: Facebook: https://www.facebook.com/LeadOutMN/ Instagram: https://www.instagram.com/leadoutmn/

Slide 37: Continuous Adaptation: Outreach
Speaker: Kelly Amoth, MPCA

In the last year, we've been able to get back out in person. We've been back to sports shows, and we've also found ways to incorporate ourselves into different exhibits that travel around the state. The photo in the middle is at a traveling exhibit called "We Are Water" that focuses on water issues in the community that is hosting the exhibit. We send sample packs there too, so people can pick up some lead-free tackle.

We also have great community partners who sometimes reach out to us about getting materials to table about Get The Lead Out at an event, and we're happy to help them and get those materials to them. Because Steven and I are part of a small team, we can't be everywhere, but we have so many fantastic partners that are helping us with this mission, as Steven will talk about later.

Slide 38: Minnesota State Fair
Speaker: Kelly Amoth, MPCA

The last big outreach event is the Minnesota State Fair, which is a 12-day event that ends on Labor Day. Over 1.8 million people visited the Minnesota State Fair this summer. The Minnesota Pollution Control Agency has its own building called the Eco Experience, where we touch on all the different topic areas we are working on – land, water, air, energy, and climate.

This year, we worked to bring a giant loon from a small northern Minnesota community about four hours away from the Twin Cities, and we built an exhibit around it. This exhibit had information about the Get The Lead Out program, loons, and climate change actions that Minnesota can take to help loons. We also had some loon calls that people could listen to.

The photo on the left shows our two big giveaways. We gave away close to 20,000 loon tattoos and 12,000 sample packs of lead-free tackle. Hopefully more Minnesotans are out there fishing with lead-free tackle after visiting us. This opportunity let us get in front of almost 200,000 people just in this building. In the chat there's a link to a video about the loon's journey to the Twin Cities. I'll pass it back to Steven to talk about our collection partners.

Message in the chat: Video from KARE11 (a Twin Cities news station) about the World's Largest Floating Loon: https://youtu.be/Ioh2huvY5xs

Slide 39: Continuous Adaptation: Lead Collection
Speaker: Steven Yang, MPCA

Like Kelly mentioned earlier, lead collection is a big part of our education outreach. A byproduct of buying lead-free tackle is that anglers will then ask what to do with their lead tackle, or how to get rid of or recycle it.

A big part of what we used to do is tackle exchanges, with the goal of collecting or recycling lead tackle and making lead-free tackle more available. We would mainly set up shop outside bait and tackle stores. People would come with lead tackle and drop it off, and we would hand out lead-free tackle.

Given our virtual setting, we couldn't do this, so we had to adapt. We developed lead collection kits, which achieve the same goals of collecting/recycling lead tackle and promoting lead-free tackle. Over the past two years, we have mailed out lead collection kits to over 85 partners throughout the state. These partners include lake associations, local governments, environmental non-profits, and county household hazardous waste facilities. The collection kits allow organizations to collect lead tackle on our behalf. They come with printed education and outreach materials, as well as lead-free tackle sample packs. These organizations then share them in their communities in a variety of ways, such as at annual meetings and community events. We also include electronic resources for them to use and print.

I should highlight our partnership with county household hazardous waste facilities, which is important because our program language has always been to dispose of or recycle your lead tackle at your county household hazardous waste facility. These facilities are properly licensed and equipped to manage lead-related waste and sometimes recycle it for car batteries. We stress that people should not throw their lead tackle into their household trash or recycling bin because it might end up back in the environment.

For all these partner organizations, we did virtual trainings to make them more knowledgeable and comfortable talking about our program and this issue in their communities. In 2021, we had 40-50 lead collection partners, and they reported back over 275 lbs. of lead tackle collected. In 2022, we added an additional 30 or so partners, bringing our total to over 85, and the latest numbers are about 500 lbs. of lead tackle collected. All of this was done while Kelly and I and our team mostly worked from home. We would never have been able to do this and reach these parts of the state if it weren't for our passionate lead collection partners that we're truly grateful for.

On the right-hand side, you can see a map of our lead collection partners throughout Minnesota. There's a cluster down in the Twin Cities metropolitan area. In north-central Minnesota, there's another cluster in what we call lake country. A lot of our 10,000 lakes are there, and also a lot of loons – and of course a lot of the folks who love those loons.

We've been asked many times if we wanted to go back to tackle exchanges because of how successful they can be. But as a program, we do like this adaptive method of the collection kits because we like our branding and messaging indicating that the tackle is lead-free. We also like the community-organized aspect of it. Local community organizations or individuals may have better relationships with their communities, and their message might resonate more than if it were coming directly from us, a state agency that's far away.

Slide 40: Lead Collection Partners
Speaker: Steven Yang, MPCA

Here are a few examples of lead collection partners of ours. On the left is the National Loon Center, a small non-profit devoted to all things loons. This was a very easy partnership for us, and they have a lead collection box that's currently in their Visitor Center.

On the right is Crooked Lake Township, a town of about 500 people in north-central Minnesota. They have promoted Get The Lead Out over the past two years at a community summer festival. They worked with a lot of local lake associations to promote the program. They also gave out raffle tickets, one of which was a coupon for lead-free tackle at the local bait and tackle store. They've collected over 75 lbs. of lead in the past two years, so they're a very successful partner of ours.

We also admire these partners because they come up with very creative ways to incentivize lead tackle disposal. One partner had a free beer ticket at a brewery as an incentive for lead tackle disposal, and they were successful too.

Lake associations are also great partners. They have a very close connection to the lakes and the loons that return to them every year. They also network and spread the word to other lake associations. Oftentimes we get emails from lake associations that have heard about the program from other lake associations and are interested.

Slide 41: Lead Collection Partners
Speaker: Steven Yang, MPCA

This was the original idea for lead collection boxes, but we ended up scaling back to the cardboard lead collection kits that have the same goals. Despite that, we still wanted to try out one of these permanent drop boxes that you see here. It's a USPS mailbox with our logo, labels, and stickers on it. We elected to put it here in this small channel because over the past three years, there have been 25 dead trumpeter swans here – 13 were tested for lead poisoning, and all 13 were confirmed to have had lead poisoning. In the photo on the right, you can see trumpeter swans in the small channel. This is a very popular spot in the summer for fishing, so we thought this was a great hotspot. The local news media will pick up on it every now and then if there's a dead trumpeter swan, so we thought it was a good idea to test out our permanent drop box idea here. Over the past two years, we've collected a lot of lead here.

Slide 42: Working with Retailers
Speaker: Steven Yang, MPCA

There's a big retail component to our program. There are many anglers out there who are very passionate about our issue, but when they go to their small bait and tackle store, they can't find lead-free tackle despite how much they want to. We acknowledge this burden, and we want to help both retailers and consumers buy more lead-free tackle.

We came up with a rebate program that went live in April. It's essentially a grant program – the idea is that small bait and tackle stores (less than 100 workers) apply for this rebate program, get approved if they're eligible, and get a 30% rebate when they buy lead-free tackle. For example, if they buy $1,000 worth of tin split shots, they get $350 back. It's saving them money and making more lead-free tackle available to consumers.

This idea evolved from our original point-of-purchase display idea, where we would have had physically displayed the lead-free tackle in stores. We would have had to come up with the display design and signage, and also procure the tackle ourselves. Given our virtual situation, we took a hands-off approach that was easier for both us and bait and tackle stores. We came

up with the rebate program because it essentially achieves the same goal of getting more lead-free tackle available on shelves. It also gives the bait and tackle stores more freedom to choose what to stock and who to buy the lead-free tackle from.

We're currently working on the best communication methods to reach these stores. We identified a little over 400 small bait and tackle stores in Minnesota and sent them the postcard you see on the right side of the slide. Future communications and outreach could include direct phone calls or even in-person visits. Since April, we've had seven small bait and tackle stores apply, most of which are in northern Minnesota. With that, I'll hand it off to Kelly to conclude the presentation.

Slide 43: What can you do?
Speaker: Kelly Amoth, MPCA

Thanks, Steven. We've talked to a lot of people, and depending on where we are, sometimes people say that they have no interest in fishing. We want people to know, especially here in Minnesota, that while we are talking about lead fishing tackle, this issue touches all of us, no matter if you're an angler or not. We try to make our outreach broad so that we can reach as many different audiences and interest groups as possible. We try to leave people with a few action items that they can take, no matter how they relate to this issue.

The first, which is really for anglers, is buying lead-free tackle. Steven and I made the transition ourselves. We've cleaned out our tackle boxes of lead tackle, which we acknowledge is a slow process. We encourage people to look at what they're using – if they're using something that may have lead, it's probably a good time to recycle it.

We remind people, as Steven said, that lead is a toxic material that cannot go in your household garbage or recycling. You have to bring it to the household hazardous waste facility in your country.

A big action item that I talk about with kids all the time is sharing about the danger of lead to wildlife. As Steven shared about the trumpeter swans, we know that lead affects lots of different animals.

Also, we always make sure to tell people to protect themselves from lead. Sometimes when people are fishing with lead split shots, they like to put them in their mouth to clamp them down on their line – hopefully you haven't done this yourself! When fishing and hunting, make sure to wash your hands before you eat or drink, and don't put tackle in your mouth. It's a big thing for us to promote how people can take action about this issue.

Slide 44: Thank You
Speaker: Kelly Amoth, MPCA

This slide has our contact information – if you have questions for us that we can't get to today, please feel free to send our program email your questions. Also give us a follow on social media on Facebook or Instagram. We'd love to hear from you. With that, I'll pass it over to our organizers for the Q&A part of the webinar.

Slide 45: Questions
Speaker: Lena Flannery

Thank you, Kelly and Stephen, for those details on the loon project. Now we're going to move into a question-and-answer period, as well as do another poll or two.

Slide 46: Questions
Speaker: Lena Flannery

Please enter any questions you have for the Trustees into the Questions box at the bottom of the GoToWebinar control panel. We'll pass them on to someone on our team that can best respond. While we're getting the Q&A organized, we'll move into a quick poll.

Slide 47: We'd Like to Hear From You
Speaker: Lena Flannery

This poll asks about outreach techniques. Please complete the poll you see on the screen, and we'll share the results in just a minute.

Excellent, thanks for your participation.

Slide 48: Questions
Speaker: Lena Flannery

Now we'll go ahead and answer some of the questions we've gotten so far.

[See Summary of Questions and Answers for the Q&A portion of the webinar.]

Thanks for all your questions today. At this point I'll turn it back over to Ashley to close us out.

Slide 49: Thank You
Speaker: Ashley Mills, DOI

Thank you, Lena. We'd like to thank everyone for joining today's webinar and hope you've found it helpful.

Soon, we'll post the presentation and written transcript to the Trustees' website. To find the Open Ocean webpage, go to https://www.gulfspillrestoration.noaa.gov/ and click on the Open Ocean icon, which is shown in the upper right of this slide.

If you would like to contact the Open Ocean Trustees, you can use the email address shown on the slide.

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

Message in the chat: You can contact the Open Ocean TIG at openocean.tig@noaa.gov. Today's presentation and a transcript will be made available on the Trustee website at www.gulfspillrestoration.noaa.gov within a few days following the webinar.

Summary of Questions and Answers

Open Ocean TIG Q&A

Question: Can you mention the status of the different planning phases for other projects included in the Open Ocean Restoration Area?

Response [from Laurie Rounds, NOAA]: In 2019, we completed two restoration plans that selected 21 projects for all our resource restoration types. Those projects are in different stages of implementation. For example, the projects for Mesophotic and Deep Benthic Communities completed planning and began their five-year implementation phase this year, so we don't anticipate additional planning work for this restoration type in the near term. However, we are conducting planning for other restoration types. For example, we're developing our third draft restoration plan, which is focused on Birds. We also recently released a strategic plan for Fish and Water Column Invertebrates that will guide future restoration planning. We are currently focused on our third restoration plan. As that plan nears completion, we will evaluate the best timing for future plans. Thank you for your question.

Question: What is the timeline for hearing back about projects under consideration? And when can we expect the next Open Ocean TIG Draft Restoration Plan?

Response [from Ashley Mills, DOI]: Thank you for submitting a project idea to the Trustees. Earlier this year we completed our process to screen project ideas received from the public for

our third restoration plan. The project ideas that best met our goals are being further developed, and in some cases combined, to develop a range of projects. These projects will be proposed for public review and comment in a draft restoration plan that we anticipate releasing this winter. So, please sign up for updates on the Gulf Spill Restoration website so you receive an email when the plan is released. Thank you for your question.

Question: When is the next anticipated Request for Proposal (RFP)?

Response [from Laurie Rounds, NOAA]: As you heard today, the Open Ocean TIG is busy working to implement many restoration projects, release our next restoration plan, and develop additional monitoring activities. We don't yet have a timeframe for when we expect to begin our next restoration plan by asking the public for project ideas. However, project ideas can be submitted anytime on the Gulf Spill Restoration website. The TIGs don't use a Request for Proposal process. Instead, each TIG announces a call for project ideas. The Trustees use ideas added to the online project portal to help us identify restoration projects that will go into a draft restoration plan that is then released for public comments. Thank you for your question.

Question: How could an International Partnership NGO participate in practical research about water quality and threatened species in the future?

Response [from Treda Grayson, USEPA]: NRDA is a restoration-focused program and does not conduct research. You may be interested in exploring research-related programs like the RESTORE Act Science Program implemented by NOAA and the RESTORE Act Centers of Excellence conducted by each Gulf state. These programs were established following the *Deepwater Horizon* oil spill to advance science, technology, and monitoring. You may submit restoration-focused project ideas at any time on the Gulf Spill Restoration web site. Thank you for your question.

Question: We received a comment from a commercial fisherman in Cedar Key, Florida regarding oyster restoration. Eric Weissberger from NOAA will touch on that topic.

Response [Eric Weissberger, NOAA]: Each TIG has what we call restoration types they are responsible for based on the injury and where it occurred. Oyster restoration is being conducted by the Regionwide Trustees and by each of the five state Trustee Implementation Groups. For your region, please see the projects that the Florida trustees are conducting to benefit oysters as well as other resources and water quality. The Open Ocean trustees don't conduct oyster restoration, but you can find out more about what the other groups are doing on the Gulf Spill Restoration website, and you can also suggest project ideas for the Trustees to consider for future restoration plans on the same website. Thank you for your question.

Question: Which marine mammals were affected by the spill?

Response [Laurie Rounds, NOAA]: Marine mammals were one of the resource groups injured in the oil spill. This group includes oceanic whales (sperm whales, Rice's whales) and dolphins, as well as dolphins that reside in the estuaries and coastal areas around the Gulf. Many of our Open Ocean restoration projects are looking to find ways to help restore for that injury by reducing some of the stressors on marine mammal populations across the Gulf.

Question: Following up on last question – bottlenose dolphins will be injured by the Louisiana TIG project, Mid-Barataria Sediment Diversion. Is there anything specific the Open Ocean TIG has planned to address those expected losses?

Response [Laurie Rounds, NOAA]: The Louisiana Trustee Implementation Group just put out the restoration plan for the Mid-Barataria Sediment Diversion, which is best addressed by providing any comments or questions to the Louisiana TIG. The Open Ocean TIG is focused on restoring injuries caused by the oil spill to oceanic species in the open waters of the Gulf of Mexico. Please look through the Gulf Spill Restoration website to get more information about that recent plan released by the Louisiana TIG. Thank you.

Loon Special Session Q&A

Question: Where and when will common loon restoration activities take place? And are there any plans to expand the loon project beyond the Gulf?

Response [Kate Healy, USFWS]: As you have seen, the restoration of common loons is happening right now, and the Minnesota Pollution Control Agency is actively engaging communities with the Get The Lead Out program. The Minnesota Department of Natural Resources is actively engaging with lake associations to build conservation plans. We're also identifying acquisition parcels and lakes that would benefit from artificial nesting platforms. Minnesota is a large state, so we wanted to concentrate our restoration efforts where we would basically get the biggest bang for our buck. Based on an analysis of data from the Minnesota DNR and from the US Geological Survey, we identified an eight-county focal area located in north-central Minnesota. It consists of Aitkin, Becker, Beltrami, Cass, Clearwater, Crow Wing, Hubbard, and Itasca Counties. Thank you for the question.

Question: How do the Minnesota Pollution Control Agency, National Loon Center, and Association of Cass County Lakes work together without duplicating efforts?

Response [Steven Yang, MPCA]: For background, the Association of Cass County Lakes is an organization of lake associations in Cass County in north-central Minnesota (one of the counties that Kate mentioned earlier). The National Loon Center, which was highlighted in the presentation, is a loon conservation non-profit with a small visitor center. We have partnerships with both organizations for lead collecting efforts, and they've also been generous with incorporating our messaging into their organizations. Many of the lake associations are near one another, and many are also near the National Loon Center. We're all promoting Get The Lead Out, so there can definitely be overlap given the close proximity. Our message in the local community may be repetitive, but I think it's a positive thing because it strengthens our message, especially when it comes from multiple local organizations and channels of communication versus coming directly from us, a state agency over three hours away. This area is just one of many in the state where we have multiple partners and overlapping efforts, but they can amplify our message and make it more rewarding since it comes from the local community. Thank you for the question.

Question: Does lead free tackle hurt a loon if it swallows it?

Response [Kelly Amoth, MPCA]: Lead-free tackle made of materials like tin, bismuth, tungsten, and steel will not affect a loon as lead-based tackle does. As Steven shared, a loon that ingests a lead split shot is going to get very sick within two to three weeks and die. But if it were a tin split shot, it would go into their gizzard and probably just act as a rock to help them digest their food. We also get asked about how hooks attached to fish affect loons – hooks get dissolved by the acid in loons' stomachs. We also really want people to know that tackle can hurt loons even if it's not swallowed. We're seeing lots of posts in Facebook groups right now about loons being found with tackle embedded in their beaks. If you're an angler, be a responsible angler – make sure you reel in your line if you see a loon close by, so it doesn't potentially strike at your lure. Thank you for the question.

Question: Has there been any attempt to work on policies or getting a ban on the use of lead?

Response [Kelly Amoth, MPCA]: We hear this question a lot, especially from Minnesotans who come up to us and say, "I didn't even know you can still buy lead tackle." Here in Minnesota, there is no legislation about the sale and use of lead fishing tackle. There is legislation in other states on the size and weight of tackle that is used, but not here in Minnesota. Our work is non-legislative, and we're an education and outreach-based program, so we're promoting awareness about this topic and helping to encourage behavior change, rather than working on changing legislation in the state. Thank you for the question.