OPEN OCEAN RESTORATION AREA TRUSTEE IMPLEMENTATION GROUP
of the
DEEPWATER HORIZON TRUSTEE COUNCIL

Civil Action Nos. 10-4536; 10-04182; 10-03059; 13-4677; 13-158; 13-00123 (E.D. La.)
MDL No. 2179

Resolution #OO-2026-016

Open Ocean Trustee Implementation Group Resolution to Approve Changes to the Project, Project Implementation Plan, and Authorized Budget for Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development (ID 235)

1. In accordance with the Oil Pollution Act of 1990 (OPA), the National Environmental Policy Act (NEPA), the *Deepwater Horizon* Oil Spill: Final Programmatic Damage Assessment Restoration Plan and Final Programmatic Environmental Impact Statement (PDARP/PEIS), and the Trustee Council Standard Operating Procedures for Implementation of the Natural Resource Restoration for the *Deepwater Horizon* Oil Spill (August 2, 2021) (TC SOPs), the undersigned representatives of the Open Ocean Trustee Implementation Group (OO TIG) hereby approve the action set forth below to support the restoration of natural resources and services injured or lost as a result of the *Deepwater Horizon* (DWH) oil spill, which occurred on or about April 20, 2010, in the Gulf of America.[1]

2. The Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development (ID 235) (CPT Project) was selected in the OO TIG Final Restoration Plan 2 and Environmental Assessment (OO RP2/EA) in November 2019. The original project duration was seven years. The original project budget of $16,961,000 was increased in 2024 to the current project budget of $28,295,500. The project is consistent with the restoration goals identified in the Final PDARP/PEIS and the Consent Decree resolving the civil actions referenced above.

3. Through Resolutions OO-2020-006 and OO-2020-012, the OO TIG approved the project implementation plan and authorized budgets for the National Oceanic and Atmospheric Administration (NOAA) and the Department of the Interior (DOI) as Implementing Trustees. A project budget increase of $11,344,500 was approved through Resolution OO-2024-018. Through the resolutions identified in the table below, the OO TIG authorized a total commitment of $28,295,500 in Mesophotic and Deep Benthic Communities (MDBC) restoration type funds.

Resolution	Authorized Project Budget	NOAA Budget	NOAA Disbursement	DOI Budget	DOI Disbursement
OO-2020-006	$16,961,000	$15,437,321	$1,545,814	$ 1,513,679	$0
OO-2020-012	$16,961,000	$15,437,321	$0	$1,513,679	$170,000
OO-2021-012	$16,961,000	$15,437,321	$0	$1,513,679	$225,500
OO-2021-015	$16,961,000	$15,437,321	$800,000	$1,513,679	$0
OO-2022-001	$16,961,000	$15,437,321	$5,607,321	$1,513,679	$1,118,179
OO-2023-002	$16,961,000	$15,437,321	$2,305,775	$1,513,679	$0
OO-2023-009	$16,961,000	$14,092,970	$0	$2,858,030	$0
OO-2023-014	$16,961,000	$14,092,970	$3,834,060	$2,858,030	$1,344,351
OO-2024-018	$28,295,500	$24,015,000	$9,922,030	$4,280,500	$1,422,470
Funding Total	$28,295,500	$24,015,000	$24,015,000	$4,280,500	$4,280,500

[1] Per Executive Order 14172, "Restoring Names That Honor American Greatness," the area formerly known as the Gulf of Mexico has been officially renamed the Gulf of America.

4. NOAA and DOI requested changes to the project and provided the project change analysis document: "Evaluation of Changes to the Project: Mesophotic and Deep Benthic Communities: Coral Propagation Technique Development (ID 235) (August 2026)," which is attached to this Resolution. The changes requested are to extend the project duration by five years and increase the authorized budget by $21,000,000. The budget increase will allow the cost-effective continuation of approved activities to meet the project's objectives. Based on their review of the project change analysis document, the OO TIG determined that the additional funding will allow the CPT Project to leverage the substantial capacity and partnerships developed to date to continue implementation to restore mesophotic and deep benthic invertebrate and fish abundance and biomass for injured species, focusing on high-density mesophotic and deep-water coral sites and other priority hard-ground areas to provide a continuum of healthy habitats from the coast to offshore.

5. The OO TIG evaluated the project changes in accordance with Section 9.5.2 of the TC SOPs, as described in the attached project change analysis document. Based on their evaluation, the Trustees conclude that the project changes are consistent with environmental review in OO RP2/EA and its NEPA analysis; there are no significant new circumstances or information relevant to environmental concerns that were not addressed in the impact analysis; and the project changes do not affect the Trustees' selection of the project under OPA. Therefore, no public review is necessary. In addition, the OO TIG determined that the project changes do not require modification to the OO RP2/EA or NEPA analysis. The public will be notified of the project changes through the Trustees' website.

6. At the time this Resolution was approved, environmental compliance with federal regulations was complete for the project. The project changes do not require additional consultations or reviews for environmental compliance. The Implementing Trustees will ensure that all applicable regulatory compliance activities are complete prior to undertaking any regulated activities and the terms and conditions of all federal, state, and local permits will be complied with in the course of implementation.

7. The revised project implementation plan (PIP), which is attached to this Resolution, has been updated to reflect the project changes and change in authorized budget. The Implementing Trustees will inform the public of the project changes through the Trustee website and an update to the DIVER project record. The Implementing Trustees shall implement and monitor the project according to the TC SOPs and the attached project implementation plan entitled "Implementation of the Project: Mesophotic and Deep Benthic Communities: Coral Propagation Technique Development (ID 235) (revised August 2026)."

8. The Implementing Trustees shall notify the OO TIG of any proposed material project changes before taking further action on the project, consistent with the TC SOPs. Any material change would be evaluated by the OO TIG based on factors identified in section 9.5.2 of the TC SOPs prior to its implementation.

9. The Implementing Trustees may modify the PIP in writing if the modifications are minor. Approval of these minor modifications by the OO TIG may be communicated verbally during an OO TIG meeting and memorialized with a memorandum to the administrative record, by email, or through other procedures agreed to by the OO TIG that result in a written record of the decision.

10. Through this Resolution, the OO TIG approves a change in authorized budget as follows:

Restoration Type	Implementing Trustee	Project Name (ID)	Previous Authorized Budget	Total Budget Change	New Authorized Budget
MDBC	NOAA	MDBC - Coral Propagation Technique Development (ID 235)	$24,015,000	$18,671,072	$42,686,072

Restoration Type	Implementing Trustee	Project Name (ID)	Previous Authorized Budget	Total Budget Change	New Authorized Budget
MDBC	DOI	MDBC - Coral Propagation Technique Development (ID 235)	$ 4,280,500	$2,328,928	$6,609,428
		Total	$28,295,500	$21,000,000	$49,295,500

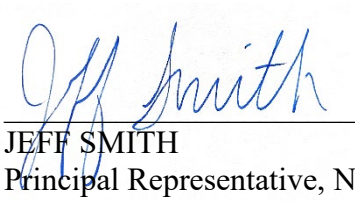
11. Funds identified in Paragraph 10 as approved for use by NOAA and DOI may only be used for the restoration activities approved by this Resolution and described in the PIP. Funds authorized by prior Resolutions identified in Paragraph 3 may continue to be used as originally authorized. Any other use of funds disbursed pursuant to this Resolution is prohibited. Any unauthorized use of disbursed funds must be reported to the full OO TIG immediately upon discovery.

12. Through this Resolution and associated *Deepwater Horizon* Trustee Withdrawal Forms, the OO TIG authorizes the commitment and disbursement of up to $21,000,000 in Mesophotic and Deep Benthic Communities Restoration Type funds from the Open Ocean General Subaccount to NOAA and DOI as detailed in the table below to conduct the tasks described in the PIP. Disbursement of authorized funds will be executed through the Implementing Trustees' submission of withdrawal forms in accordance with the OO TIG's annual cash flow planning.

Restoration Type	Implementing Trustee	Project Name (ID)	Funds Authorized for Disbursement
MDBC	NOAA	MDBC - Coral Propagation Technique Development (ID 235)	$18,671,072
MDBC	DOI	MDBC - Coral Propagation Technique Development (ID 235)	$2,328,928
		Total	$21,000,000

13. It is resolved that after a review of this Resolution and the attached project change analysis document, the duly authorized officials for the OO TIG approve the following: 1) the changes to the Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development (ID 235) as summarized in Paragraph 4 and in the attached project change analysis document; 2) the new authorized budget detailed in Paragraph 10; 3) revisions to the attached project implementation plan; and 4) authorization for the commitment and disbursement of funds as identified in paragraph 12. This resolution may be authorized in counterparts. The effective date of this resolution is the date of last signature below.

OPEN OCEAN RESTORATION AREA TRUSTEE IMPLEMENTATION GROUP



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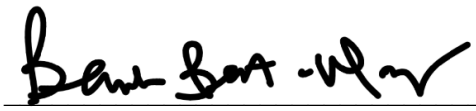

BENITA BEST-WONG
Principal Representative, U.S. Environmental Protection Agency

DATE OF LAST SIGNATURE: September 10, 2026

Evaluation of Changes to the Project Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development (ID 235)

August 2026

I. Introduction

Section 9.4.9 of the Trustee Council Standard Operating Procedures for Implementation of the Natural Resource Restoration for the Deepwater Horizon (DWH) Oil Spill (TC SOPs) provides that if changes are made to any selected project, those changes may require a re-evaluation of determinations made in existing environmental compliance documents. Section 9.5.2 of the TC SOPs provides that the Trustee Implementation Group (TIG) will conduct a project review to determine several factors. First, the TIG will determine whether any change to the project is consistent with the environmental review in the respective restoration plan/National Environmental Policy Act (NEPA) analysis, or whether there are substantial changes that are relevant to environmental concerns. Second, the TIG will assess whether there are significant new circumstances or information relevant to environmental concerns not addressed in the impact analysis of the respective restoration plan/NEPA analysis. Third, the TIG will evaluate whether project changes affect their selection under the Oil Pollution Act (OPA).

The Mesophotic and Deep Benthic Communities (MDBC) - Coral Propagation Technique Development (ID 235) (CPT Project or project) is a preferred alternative identified and selected in the Open Ocean Trustee Implementation Group (OO TIG) Final Restoration Plan 2 and Environmental Assessment (OO RP2/EA), approved by the OO TIG in November 2019. It was selected with three other preferred MDBC alternatives, committing a total of $126,188,000 of the $273,300,000 MDBC allocation. Taken together, the four projects provide a coordinated approach, maximizing efficiencies and cost-effectiveness, to achieve the MDBC restoration goals. The shared timeline for the four projects is 2020 through 2027-28.

In 2025, the OO TIG began a review of the MDBC projects to evaluate progress in meeting MDBC restoration goals and consider committing additional funds to continue their implementation. In February 2026, the OO TIG approved a five-year extension and budget increase of $12.5 million for the MDBC Habitat Assessment and Evaluation Project. Currently, $151.9 million has been allocated to MDBC restoration planning and implementation projects. The TIG is concurrently considering five-year extensions for this CPT Project, the Active Management and Protection (AMP) Project (ID 233), and the Mapping, Ground-truthing, and Predictive Habitat Modeling (MGM) Project (ID 234), with budget increases of $21 million, $12.5 million, and $10 million respectively. Continued implementation of these three MDBC Projects for 5 years would commit an additional $43.5 million of the remaining $121.4 million MDBC allocation. Execution of this full suite of proposed extensions and their associated budget increases would leave approximately $77.9 million for future MDBC restoration.

This document describes the OO TIG's review of the CPT Project and evaluates a $21 million increase in authorized budget to continue implementation for 5 years.

II. Project Background

The goal of the CPT Project is to pilot techniques for coral fragment propagation and transplantation, including studies of substrate placement as structure for coral fragment transplantation and for

recruitment of coral larvae. The project examines the results of these studies across the highly variable geography of the northern Gulf of America (Gulf), both inside and outside of areas with documented or potential injury from the DWH oil spill. Studies are also being designed and conducted to assess whether techniques can be applied at scales meaningful in the scope and context of DWH injury to MDBC. Through these studies, the project is filling critical knowledge gaps relating to coral community enhancement and informing restoration activities. The project focuses on species with documented impacts from the DWH oil spill and other important habitat-forming taxa.

The project completed the approved implementation planning stage in 2022. The 5-year implementation phase began in 2022 and continues through 2026. The project scope includes a final period for analysis, synthesis, and reporting of project results, planned for 2027-2028. The CPT Project, in conjunction with the other MDBC projects, holds annual adaptive management workshops to assess data collected to address uncertainties, evaluate progress towards project objectives and develop annual work plans. Following the project change approved in 2024, the CPT Project increased implementation work plans developed over the first three years of the project to construct artificial substrates for coral transplantation and to scale up coral husbandry and propagation techniques.

The full project description can be found in OO RP2/EA Section 3.8.3. OO RP2/EA is consistent with and tiered from the 2016 Programmatic Damage Assessment and Restoration Plan/Programmatic Environmental Impact Statement (PDARP/PEIS), which was prepared by the Trustees to programmatically plan restoration projects to restore natural resources and services injured by the spill. The PDARP/PEIS also analyzed the environmental impacts of the reasonable range of programmatic alternatives, including considerations associated with planning, feasibility studies, design engineering, and permitting on future restoration projects. The National Oceanic and Atmospheric Administration (NOAA) and the Department of the Interior (DOI) are co-implementing trustees for the CPT Project, which began work in 2020. As selected in OO RP2/EA, the CPT Project's original estimated cost was $16,961,000.

In 2024, NOAA and DOI requested a budget increase to scale up CPT Project restoration activities and provided the project change analysis document: "Evaluation of Changes to the Project: Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development (September 2024)". The OO TIG determined that implementation work plans developed over the course of the first three years of the CPT Project should be ramped up in preparation for an efficient and cost-effective transition to implementation of future restoration actions at a scale commensurate with the DWH injury. In addition, the project changes addressed funding shortfalls due to general market cost increases, inflation, and limited information available about implementation requirements when the project was selected in OO RP2/EA. After reviewing the evaluation, the OO TIG approved the CPT project changes and an additional $11,344,500 in Mesophotic and Deep Benthic Communities (MDBC) restoration type funds through Resolution #OO-2024-018. With these changes, the CPT authorized project budget is currently $28,295,500.

In 2026-28, the CPT Project will complete currently approved implementation and reporting activities. Since commencing work in 2020, the CPT Project has made substantive progress and developed the necessary capacity to conduct direct restoration activities. Implementation of the CPT Project to date has dramatically improved understanding of MDBC species, habitat structure and functioning affected by the DWH oil spill and other threats. CPT Project activities have developed and implemented effective methods for enhancement of coral recruitment and growth. Corals are spawning and settling in multiple

laboratories and propagated fragments are growing in the wild; however, monitoring to date has shown that larger coral fragments fared better in a field study and lab-growth is slow. Additionally, despite progress with several propagation techniques, considerable additional effort is required to develop these techniques so that restoration can continue with confidence that the methods are effective to recruit and grow corals at a scale commensurate with DWH oil spill-related injuries.

The OO Trustees reviewed progress made by the CPT Project and determined that the CPT Project activities to restore MDBC by strategically placing hard substrate in ideal locations for coral colonization and coral transplant survival are successfully advancing the Trustees' MDBC restoration goals. Committing an additional $21 million in MDBC restoration funds to continue implementation of the CPT Project beyond its current duration would constitute an effective and efficient strategy to meet MDBC restoration goals, specifically to restore mesophotic and deep benthic invertebrate and fish abundance and biomass for injured species, focusing on high-density mesophotic and deep-water coral sites and other priority hard-ground areas to provide a continuum of healthy habitats from the coast to offshore.

Currently Approved Project Scope

The following is a summary of the project scope approved in the OO RP2/EA:

The CPT Project implements a range of field and lab-based activities to meet the following project objectives:

1. Propagate new colonies in the highly ranked species identified through the data inventory and analysis, and transplant these back into their natural environment.
2. Document the biology and reproduction of the 12 highly ranked species identified by the project team to understand their propagation potential.
3. Conduct lab and field trials in the 8 different propagation methods documented in the literature review and identified in consultation with SMEs.
4. Deploy and evaluate multiple substrate types with replication in each depth zone, preferably natural substrates or engineered and artificial 'recoverable' substrates that can be monitored over long timeframes using divers or a remotely operated vehicle (ROV).
5. Generate models for propagation success to make comparisons for scaling up activities.

The CPT Project pilots techniques to place hard substrates and propagate corals at different depth zones. The most promising and successful techniques are then scaled up at priority locations. Coral propagation techniques include substrate placement anticipating natural recruitment, field-based fragmentation and placement, and lab-based systems to advance coral nurseries and biological studies. The CPT Project also conducts monitoring at restoration and reference sites, in cooperation with the other MDBC projects, to inform adaptive management and long-term evaluation of success.

Restoration, data collection, monitoring, and surveys are conducted at priority areas in the MDBC Area of Interest (AOI). Activities are conducted using the full suite of available technologies, which have been previously evaluated for the project. Surface (i.e., ship-based) operations and subsurface operations (i.e., ROV, autonomous underwater vehicle (AUV), technical diving, and deployment of instrumented landers and/or moored buoys) are conducted to collect data and samples. The CPT Project conducts the following activities at priority areas in the MDBC AOI using the full suite of available technologies previously evaluated for the project.

Conduct coral propagation and deploy substrates:

The CPT Project conducts field-based propagation activities and deploys substrates at injured and reference areas for successful methods using natural and artificial substrates. Coral propagation technique development-related field operations include the targeted collection of coral specimens (whole colonies, fragments for genetics analysis, commensal organisms, associated sediments or substrates, and water containing gametes or larvae), small-scale deployments of experimental settlement substrates on landers to test coral recruitment potential and performance, and deployment of artificial substrates at suitable sites to restore MDBC. During its extended implementation, the scale of substrates deployed is being increased from past experimental designs. These designs have evolved from racks and settlement arrays attached to landers to constructed bases that hold coral fragments placed by specialized divers or ROVs. The footprint of these designs has evolved from sub-meter to less than 10 square meters at any single placement site. Substrate designs are constructed of natural limestone, aragonitic aggregate, or ceramic tiles.

Current designs are being implemented at gradually larger scales (e.g., aragonitic aggregate pedestal, pyramid, and curb structures, or natural limestone boulders, placed either individually or in piles to achieve elevations of less than 5 m above the sea floor across footprints of less than 10 m sq at any single placement site) to advance restoration at scales commensurate with the DWH injury. These increases in scale, and those anticipated during the project change period, all fit within the scope previously analyzed for this activity (i.e., footprints up to 100 square meters at any single site, placed to avoid existing hard bottom and biogenic structured habitats).

Beginning in 2023, the CPT Project developed a substrate deployment implementation strategy to scale up successful experimental designs based on extensive literature review and subject matter expert input. Evaluation of these techniques was documented in DWH MDBC Technical Memorandum 003, "Inventory and review of artificial substrates to support coral propagation in mesophotic and deep benthic communities", accessible through the NOAA Institutional Repository. The strategy includes the following types of structures:

- Lander Structures- are designed to accommodate the deployment of a small number of corals and be easily retrievable to evaluate and monitor conditions prior to a large-scale restoration effort.
- Long-term Structures- are designed to create hardbottom and/or complex habitat that is conducive to coral recruitment, survival and growth in an area where habitat has been degraded or did not previously exist. Examples of these structures that may be deployed by the CPT Project include rock piles, concrete blocks, and biomimetic structures and 3D-printed surfaces designed to resemble natural coral habitat more closely and/or encourage coral recruitment.
- Nursery Structures- are designed to serve as an intermediary step to improve survival and health by reducing stressors such as predation or competition, allowing for acclimatization to the habitat, and/or improving access to light and food to enhance growth.
- Recruitment Structures- are designed with specialized substrates and materials to enhance the success of coral restoration by increasing the likelihood of settlement of coral recruits. The recruitment of targeted species onto specially designed substrates for deep-water species has had limited success. While recruitment of target species is a key goal for MDBC, more information

about the reproductive biology and species-specific settlement preferences is needed before recruitment structures can be effectively designed.

Substrate deployments are scaled within previously approved criteria with footprints up to 100 square meters at any single site and placed to avoid existing cultural or historic resources or hard bottom hosting biogenic structured habitats. The inclusion of monitoring equipment, natural substrates, Autonomous Reef Monitoring Structures (ARMS), and fragments of target species on substrates and landers provide environmental data, help characterize recruitment patterns on sites, and show short-term survival rates of target species prior to the deployment of long-term structures. Initial deployments of ARMS and landers provide valuable initial data on the suitability of potential sites. Long-term structures are deployed 1 to 2 years after initial deployments of landers and ARMS, based on rates of survival and recruitment observed.

Artificial structures with individual footprints less than approximately 10 square meters and elevations less than approximately5 meters are considered the most suitable size with minimal risk to the environment. Sculpted or cast structures of similar sizes, and similarly sized aggregate structures are anticipated to be the most suitable long-term structure types for active (i.e., coral propagule or fragment out-planting surfaces) and passive (i.e., larval recruitment) restoration approaches in both mesophotic and deep-sea environments. Piles of natural boulders and aragonitic aggregate structures of the same scale are also considered suitable, in many circumstances. Long-term structures of the types reflected in Table 1, below, are planned to be placed in groups of approximately 24 experimental sites at up to 30 survey areas across the MDBC AOI during the project change period, with footprints up to 100 sq m per site.

Table 1 - Summary table of long-term structure artificial substrate types

Substrate Type	Material	Footprint (sq m)	Height (m)	Weight (kg)	Deployment note
Engineered pyramid structures	*Marine grade aragonitic concrete mix, rebar, ~0.1 - 0.2m diameter limestone rock aggregate*	*~4.6 sq m (triangle)*	*~2.5m*	*~3000kg*	*Discrete unit; single placement. shape prevents scour/subsidence.*
Engineered pedestal structures	*Marine grade aragonitic concrete mix, rebar, ~0.1 - 0.2m diameter limestone rock aggregate*	*~1.9 sq m (rectangle)*	*1.7m*	*~3000kg*	*Discrete unit; single placement. base deflects current upward to eliminate scour.*
Engineered curbs – long columnar structures	*Marine grade aragonitic concrete mix, rebar, ~0.1 - 0.2m diameter limestone rock aggregate*	*~1.9 sq m (rectangle)*	*0.5m per unit, piles ~3-4 units high*	*~1500kg*	*New design. placed to control stacking; prevents scour/subsidence.*
Natural limestone boulders	*Natural Florida limestone*	*~0.5 - 2 sq m*	*~0.5 - 2 m diameter per boulder, piles 3-4 units high*	*~500-1000 kg per boulder*	*Boulders vary in size; placed to form a pile. Slight subsidence forms a stable base.*

Substrates are tested in the lab and in the field with a small team of coral biologists working to understand water chemistry, biofilms, and larval settlement in the lab aquaria and in the natural environment to improve the effectiveness of deployed substrates. Long-term substrates are placed in deep-sea and mesophotic environments and monitored using ROVs and divers (in the mesophotic zone) to evaluate restoration performance. The CPT Project is conducting propagation efforts with mesophotic species and is increasing its efforts focused on deeper-dwelling species. The Project oversees and directs teams of technical divers supporting coral propagation in the field.

Coral husbandry and propagation studies:

The CPT Project conducts propagation trials and experiments at federal and external partner labs and in the field. Targeted coral collections during cruise missions are conducted for laboratory culture and in support of studies of food resources, life history characteristics, health condition, and trophodynamic linkages among ecosystem components, which are conducted jointly with the MDBC Habitat Assessment and Evaluation (HAE) Project. This work engages coral biologists, veterinarians, aquarists, ROV engineers, and public aquarium partners in coral collections. The collections support lab-based husbandry and propagation experiments, for both in situ propagation tests and environmental characterizations of conditions for target species and in the design, deployment, and monitoring of artificial substrates. Lab husbandry is intended for out-planting to the natural environment via artificial substrates but also provides a controlled environment for multi-factor studies to improve health and condition of captive corals, including spawning adults and larval recruits, using new techniques like probiotics and feeding automation. Husbandry lab studies focus on understanding basic coral biology and technique development needed for asexual and sexual propagation.

Field and lab data collection, and environmental monitoring:

The CPT Project collects data including analyses of ROV video and stills, water chemistry data from the field and labs, status of live corals, and precise locations of coral aggregations, high-relief bathymetric features, and field instruments for incorporation in mission planning processes and to develop science products. Long-term monitoring of coral restoration and reference sites is conducted through mapping and ROV surveys, landers, and sampling of water, sediments, and biota.

Annual project monitoring and adaptive management activities:

Management of the CPT Project involves ongoing planning and administration, completing annual project work plans and budgets, overseeing and coordinating implementation of partner agreements, and leading the development of mission plans including coordination of all needed assets for field efforts. Project managers support annual adaptive management reviews, stakeholder engagement, coordinate annual implementation activities through ongoing gap analysis, long-term planning to direct CPT Project implementation and reporting for the duration of the project life, and integration with the rest of the MDBC portfolio. The project also produces information that builds upon the 2022-2027 implementation phase and prior implementation products, and reports that information in publications and data repositories.

Previous Analyses of Project Scope

An important, direct approach to restoring MDBC is to facilitate the growth of new corals. As described in the PDARP/PEIS, the creation of interim habitat and active transplantation of corals would help to accelerate an otherwise protracted natural recovery due to the slow natural growth rate and low

recruitment of mesophotic and deep benthic corals. The CPT Project, along with the other MDBC projects, was approved as a long-term project with phased compliance. The project's activities as described in OO RP2/EA Section 2.6.4.3 and Section 3.8.3.2 are summarized as follows: "Develop direct restoration techniques for coral propagation and substrate deployment that can be implemented at a meaningful scale relative to the injury." The project will continue to implement these techniques over time and at scales necessary for effective enhancement of coral recruitment and growth.

Following completion of the Implementation Planning Phase, implementation activities were detailed and reviewed in the following documents approved by the OO TIG through Resolutions OO-2022-001 and OO-2023-009:

- Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities (January 2022).
- Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities 2023-2027 (April 2023).

Geographic areas for field operations are described in Section 4.3.2.1.1 of the OORP2/EA and Section 5 of the January 2022 NEPA and environmental compliance review. CPT field operations take place in the MDBC AOI, which encompasses mesophotic coral habitats along the continental shelf edge (50–200-meter depths) and ocean floor habitats in the continental slope (>200-800-meter depth) and/or deep sea (>800-meter depth).

As described in the January 2022 NEPA and environmental compliance review, CPT related field operations (OO RP2/EA Section 3.8.3.1) include a) the targeted collection of coral specimens (whole colonies, fragments for genetics analysis, commensal organisms, associated sediments or substrates, and water containing food, gametes or larvae) and b) small-scale deployments of experimental settlement substrates to test coral recruitment potential and performance. In addition, targeted coral collections are conducted during cruise missions for live-animal laboratory culture and in support of laboratory studies of genetic expression, life history characteristics, settlement and feeding studies, and studies tracking health condition, and characterizing trophodynamic linkages among ecosystem components. None of the coral species to be collected are listed under the Endangered Species Act (ESA).

As described in the April 2023 NEPA and environmental compliance review, CPT planned project activities include diver- and ROV-deployed field propagation tests of lab-reared coral propagules and lab-reared or in situ fragments placed within one kilometer of the sites where donor colonies have previously been collected. This activity is co-located with in-situ substrate placement activities.

Substrate placement and propagation activities are designed to be experimental in scale, with footprints up to 100 square meters at any single implementation site and placed to avoid existing hard bottom and biogenic structured habitats. Monitoring at placement sites is planned to compare performance of methods and materials for enhancement of growth, reproduction, recruitment, and survival of target propagation coral species.

In 2024, the CPT Project increased fieldwork at deeper depths and increased the capacity of propagation teams to provide expertise for substrate deployments, technical diving, fabrication and coral gardening, and other needs. An expanded level of effort was also initiated in 2024 to collect coral samples, collect

environmental data at coral collection and propagation sites, and conduct biological and genetic coral studies. These activities were extended to cost-effectively implement MDBC restoration.

To ensure propagation methods are implemented in an ecologically appropriate way, the CPT Project also increased efforts in 2024 to conduct lab-based studies to test propagation substrates prior to field deployment and to identify the additional care required for rearing juveniles vs. adults once they settle onto artificial substrates. These studies inform successful restoration techniques, establish sound husbandry methods, and ensure genetic integrity and diversity at transplantation sites.

III. Description of Project Changes

The proposed project change is a 5-year extension to continue implementation of approved activities within the MDBC AOI and an associated increase in authorized budget of approximately $21 million. The time extension and increase in funding will provide additional restoration benefits by allowing NOAA and DOI to leverage the capacities and partnerships established to date and conduct additional MDBC restoration by placing hard ground substrate and transplanting corals. The additional funds would be distributed between co-implementing trustees as follows: NOAA: $18,671,072 and DOI: $2,328,928. No change to the geographic areas for field operations is requested. During the extended duration, the CPT Project would apply the knowledge and experience gained through the current MDBC projects to focus proportionally greater effort on direct restoration activities and expand those efforts for MDBC at deeper depths.

Proposed Budget Changes

The following provides a summary of requested budget changes for the CPT Project and for the co-implementing trustees.

Trustee	Current Authorized Budget (OO-2023-009)	Requested Increase in Authorized Budget	New Total Authorized Budget
NOAA	$24,015,000	$18,671,072	$42,686,072
DOI	$ 4,280,500	$2,328,928	$6,609,428
Total Budget	$28,295,500	$21,000,000	$49,295,500

IV. Determination of Need for Additional OPA Evaluation

NOAA and DOI, as co-implementing Trustees, reviewed previous OPA evaluations to compare prior assessments of the current project to the project with the proposed changes as described in Section III of this document. The purpose of this comparison is to evaluate whether project changes affect the Trustees' selection of the project under OPA in OO RP2/EA and subsequent implementation compliance review documents.

The OPA evaluation of the CPT Project was described in Section 3.8.3.3 of the OO RP2/EA. Consistency with the OO RP2/EA OPA evaluation was described in Section 6 of the memo, "Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental

Compliance Review of Implementation Activities (January 2022)" and in Section 3 of the memo, "Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities 2023-2027 (April 2023)".

The project was selected in OO RP2/EA as a long-range action structured to include a full lifecycle of activities such as initial project design and assessment, tool design, and tool testing through long-term site-specific project implementation. The trustees' analysis in OO RP2/EA found the project has a strong nexus to injuries and would contribute to meeting restoration goals as outlined in the PDARP/PEIS. It was also found to meet the Trustees' goals at reasonable and appropriate costs, have a high likelihood of success, and provide potential benefits to more than one natural resource or service. In addition, the Trustees determined that the project is not expected to have negative impacts to public health and safety and would avoid collateral injury by evaluating environmental consequences of techniques during the project planning and design activities and by identifying best management practices (BMPs) to minimize potential collateral injury. Additionally, the Trustees recognized that the project will increase scientific understanding of restoration, improve the Trustees' ability to target restoration activities and track resource and ecosystem recovery. Subsequent evaluation of project implementation activities in January 2022 and April 2023 found that all project implementation activities remain consistent with the OPA findings in OO RP2/EA and fully meet OPA evaluation standards.

Application of OPA NRDA evaluation standards to project with change

The following summarizes the Trustee's evaluation of the OPA evaluation standards for the project with proposed changes.

Cost to Carry Out the Alternative

The estimated cost of $21 million to continue implementation of the CPT Project for 5 additional years is based on experience gained through the current implementation and knowledge of subject matter experts. The CPT Project has developed cost effective techniques to restore MDBC, especially in mesophotic depths. Continuing this work is the most cost effective and efficient approach to continue to achieve restoration benefits. In addition, critical knowledge gaps remain, especially in restoration techniques for coral species in deeper depths. Continuing the activities performed under the CPT project to address these gaps is cost-effective and would be highly efficient, maximizing coral husbandry labs, progress made through propagation studies, and cross-project infrastructure, including survey and monitoring technological equipment (AUVs, ROVs, landers, sensors). The project would continue to maximize cost efficiency through existing staff expertise and established partnerships. Cost estimates are based on an understanding of the best available, most appropriate technologies and equipment for accomplishing the goals of the project. Cost-effectiveness of the project would be enhanced by continued use of an adaptive management process and progress monitoring.

Trustee Restoration Goals and Objectives

The CPT Project is developing and implementing successful direct coral propagation techniques that would continue to meet the Trustees' goal of restoring mesophotic and deep benthic invertebrate and fish abundance and biomass for injured species. The CPT Project has a strong nexus to injuries caused by the DWH oil spill and response activities, particularly through the development of data and viable techniques to place hard ground substrate and transplant coral to directly restore MDBC that were impacted by the DWH oil spill. The increased budget for the CPT Project would increase efforts focused on substrate

deployments for in-situ technique development, including substrate placement for natural recruitment, field-based fragmentation and placement, and lab-based husbandry. The CPT Project would continue to be consistent with OO TIG goals and objectives and would contribute to the MDBC Restoration Type-specific goals outlined in the PDARP/PEIS.

Likelihood of Success

The CPT Project has demonstrated success by developing and piloting coral propagation techniques over the past 5-year implementation period. Continued implementation of CPT Project activities has a high likelihood of success by building on the improved understanding of MDBC species and habitat structure and functioning that has been achieved by the project. The project would continue to evaluate the success of the techniques developed to date and continue to scale up the most promising and productive techniques for different depth zones. The project is technically feasible and uses best available science, proven techniques, and established methods identified during the current implementation phase. The project has been designed with robust monitoring and adaptive management to provide continued evaluation. The project would continue to use existing methods and be adaptively managed, to increase the likelihood of success.

Prevents Future Injury and Avoids Collateral Injury

Continued implementation of the CPT Project would focus direct restoration in areas in and adjacent to sites injured by the DWH oil spill and continue to monitor recovery of MDBC. Through propagation of lab-reared corals and assisted natural recruitment, continuing the CPT Project would facilitate the long-term recovery of areas in and adjacent to injured habitat and prevent continued loss of the ecosystem services provided by MDBC. This project would continue to avoid collateral injury by utilizing proven methods and BMPs and continuing to evaluate potential environmental consequences of techniques during the project planning and design activities and by identifying additional BMPs as needed to minimize potential collateral injury. Should any potential effects be identified, the OO TIG would ensure proper coordination and protective measures are put in place.

Benefits Multiple Resources

The CPT Project would continue to benefit multiple marine organisms that comprise MDBC. Expected benefits would include maintaining ecological integrity and increasing ecosystem resilience, resulting in improved species populations and increased habitat value for species within, and associated with, these communities.

Public Health and Safety

Continued implementation of the CPT Project is not expected to affect public health and safety. Field operations associated with this project would be performed in remote offshore areas by experienced, licensed crews applying rigorous safety plans and SOPs. The project would ensure personnel are properly trained, that appropriate equipment and safety standards are employed, and that routine safety inspections are performed. Negative impacts to public health and safety from this project are not likely.

OPA Evaluation Conclusions

The proposed changes to the CPT Project described in Section III of this document do not change the OPA evaluation described in the OO RP2/EA or in the January 2022 and April 2023 analyses. The additional funding will allow the CPT Project to cost effectively leverage the substantial capacity and

partnerships developed to date to conduct additional restoration to achieve the Trustees goals using techniques with a high likelihood of success. The project with proposed changes fully meets the OPA evaluation standards and is consistent with the PDARP/PEIS. In addition, the proposed changes described above in Section III do not affect the Trustees' selection of the project under OPA.

V. Determination of Need for Additional NEPA Analysis

NOAA and DOI, as Implementing Trustees, reviewed previous NEPA analyses to compare the environmental impacts of project implementation activities and associated NEPA as previously analyzed to the impacts expected from the proposed changes as described in Section III of this document. The purpose of this comparison is to determine whether the original NEPA analysis in OO RP2/EA and the subsequent analyses captured and analyzed the impacts of continued implementation of approved CPT Project activities.

In OO RP2/EA, the MDBC projects are described as "long-range activities" structured to include a full lifecycle of activities and evaluated from a programmatic perspective. Therefore, the OO TIG committed to review site-specific actions to be conducted by the MDBC projects to affirm their consistency with the NEPA Analysis provided in the OO RP2/EA. The Affected Environment was described in Section 4.3 of the OO RP2/EA. It was further detailed in Section 7 of the Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities (January 2022) memo. The January 2022 analysis provides a detailed description of the areas targeted for field operations as well as updated descriptions of additional protected areas within the project area since approval of the OO RP2/EA. The additional project activities that were analyzed in April 2023 do not modify the MDBC areas and habitats described in the Affected Environment section of the January 2022 analysis. The proposed project change to continue implementation of approved project activities does not change the Affected Environment as previously analyzed.

The original analysis of MDBC project activities can be found in Section 4.4.6.3 and Table 4-8 of the OO RP2/EA and is incorporated by reference. The impacts from the project were found to include beneficial effects as well as some short and long-term, minor to moderate adverse effects. Impacts from substrate placement and coral transplantation were described as having long-term benefit to coral species and associated fish and sessile and benthic organisms. These activities would also cover soft bottom substrates, causing short-term to long-term, minor to moderate localized adverse impacts to physical resources. The use of sonar operations (e.g., ship-mounted, towed, and AUV-mounted side scan sonars; synthetic aperture sonars; multi-beam echo-sounders) may result in temporary, short-term, minor changes to the acoustic environment in the areas that would be surveyed, leading to disturbances to fish, sea turtles, and marine mammals. Project activities, including substrate placement and sample collection, were also described as causing short-term to long-term, minor to moderate adverse impacts and long-term benefits to biological resources from the restoration of MDBC. The gradual expansion in size and scale of substrates developed and deployed over the course of the project fits within and does not change the scale of impacts previously evaluated. Analysis in OO RP2/EA also found that the project would not adversely impact human uses and socioeconomics, but may have long-term, minor adverse impacts to cultural resources. However, mapping and application of best practices during subsea operations would be used, making these impacts unlikely. The Finding of No Significant Impact (FONSI) can be found in Appendix

H of the OO RP2/EA. The FONSI concluded that implementation of the OO RP2/EA preferred alternatives, including the CPT Project, will not significantly impact the quality of the human environment.

BMPs identified in required permits, consultations, or environmental reviews would be followed to reduce or eliminate potentially adverse environmental impacts. Additionally, BMPs described in Appendix 6.A of the PDARP/PEIS that are relevant to this project would be applied. Through technical assistance with regulatory agencies, additional BMPs may be identified for implementation and would be catalogued in compliance documents.

Project activities were further evaluated in Section 7 of the Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities memo (January 2022) and in Section 4 of the Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities 2023-2027 memo (April 2023). Through both of these evaluations, the potential environmental effects of the planned field operations, including anticipated methods and geographic locations, were found to be consistent with the environmental review in the OO RP2/EA or with other relevant NOAA NEPA documents that were incorporated by reference for specific field operations not described in detail in OO RP2/EA. The reviews also determined that there were no substantial changes relevant to environmental concerns, and no significant new circumstances or information relevant to environmental concerns not addressed in the OO RP2/EA impact analysis. The extension of previously evaluated project implementation activities and increase in project budget as proposed in this document do not modify the areas and habitats addressed or environmental consequences to those resources as addressed in previous NEPA documentation.

NEPA Analysis Conclusions

The proposed project changes described in Section III of this document do not change the scope of the original project that was defined and analyzed in the OO RP2/EA or in the January 2022 and April 2023 memo analyses. No changes will be made to the project implementation activities, conservation measures and best management practices to be implemented. Section VI below reviews the project's environmental compliance status and finds that no additional compliance is necessary because the project would not change in any substantive way that would require additional compliance. Therefore, prior NEPA determinations are still applicable, and no new impacts are anticipated to result from the proposed project changes. In addition, no substantial changes to environmental concerns, no significant new circumstances, and no new information that would alter the OO RP2/EA impact analysis have been identified and are not anticipated by continuing implementation of project activities.

VI. Determination of Need for Additional Environmental Compliance

Environmental compliance reviews were completed during a review of 2023-2027 field activities and are detailed in "Mesophotic and Deep Benthic Communities Restoration Projects: National Environmental Policy Act and Environmental Compliance Review of Implementation Activities 2023-2027 memo (April 2023)". This analysis included experimental propagation tests, with footprints up to 100 square meters at a single site, placed to avoid existing hard bottom and biogenic structure habitats. This project change

does not alter activities previously reviewed in the April 2023 memo, thus additional compliance reviews are not required.

If future compliance reviews include new or updated best management practices or requirements, project field work will follow the most recent requirements. If additional field activities or methodologies are added in the future, the need for additional compliance reviews will be evaluated at that time.

VII. Conclusions

Section 9.5.2 of the TC SOPs provides that the TIG will review proposed material project changes to determine the following factors:

- Whether any change to the project is consistent with the environmental review in OO RP2/EA NEPA analysis, or whether there are substantial changes that are relevant to environmental concerns.
- Whether there are significant new circumstances or information relevant to environmental concerns not addressed in the impact analysis of the respective restoration plan/NEPA analysis.
- Whether project changes affect their selection under OPA.

Outcome of Evaluation of Project Changes:

- The changes to the CPT Project are consistent with the environmental review in the OO RP2/EA NEPA review and there are no substantial changes that are relevant to environmental concerns.
- There are no significant new circumstances or information relevant to environmental concerns not addressed in the impact analysis of the respective restoration plan/NEPA review.
- The OO TIG evaluated whether project changes affect the selection under OPA and determined they do not.
- The OO TIG evaluated whether the project changes affect the need for additional consultations or reviews for environmental compliance. Based on review of the proposed project changes, completed consultations and reviews remain valid.

Continued implementation of the CPT Project for five additional years and increasing the authorized budget by $21M would continue to achieve the Trustees' restoration goals and do not impact the overall project objectives or environmental consequences. These changes do not affect the selection of this project under OPA, and the project is consistent with the environmental review conducted for the OO RP2/EA. Therefore, no further analyses under OPA or NEPA are necessary and modifications to the final restoration plan are not required. In addition, the original public comment period conducted for the OO RP2/EA solicited public input on the project and comments were supportive of this project with no controversial issues identified. The public will be informed of the changes to the project through the Gulf Spill Restoration website.

Implementation of the Project: Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development (revised August 2026)

Approved by Resolution #OO-2026-016

This Implementation Plan outlines the tasks and activities to be undertaken to implement the Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development Project (CPT Project) authorized by Resolution #OO-2020-006. It has been revised to reflect the project changes approved by resolution OO-2026-016. The National Oceanic and Atmospheric Administration (NOAA) and the Department of the Interior are designated as the Implementing Trustees for this Project, which the Open Ocean Trustee Implementation Group (OO TIG) selected in the *Open Ocean Trustee Implementation Group Final Restoration Plan 2/Environmental Assessment: Fish, Sea Turtles, Marine Mammals, and Mesophotic and Deep Benthic Communities, November 2019* (Final RP2/EA). This project will be implemented in a manner consistent with the Final RP2/EA.

A. Project Overview and Roles of Implementation Partners

An important, direct approach to restoring Mesophotic and Deep Benthic Communities (MDBC) is to facilitate the growth of new corals. As described in the PDARP/PEIS, the creation of interim habitat and active transplantation of corals would help to accelerate an otherwise protracted natural recovery due to the slow natural growth rate and low recruitment of mesophotic and deep benthic corals. The objective of this project is to develop techniques that can be used for direct restoration of MDBC at a scale that is meaningful relative to the injury to these communities. The project completed the approved implementation planning stage in 2022. The original 5-year implementation phase began in 2022 and is anticipated to continue through 2026. The project scope includes a final period for analysis, synthesis, and reporting of project results, planned for 2027-2028.

In 2024, the OO TIG approved the CPT project change and increased budget through Resolution #OO-2024-018. In 2025, the Project completed its fifth year of the seven-to-eight-year original project duration. Critical data to evaluate the results of coral lab studies and substrate field tests are becoming available near the end of the current project implementation phase to inform and refine restoration priorities. Therefore, NOAA and DOI requested a project change to continue the activities performed under the project beyond 2026. Based on their review of progress made and the project change analysis document, the Open Ocean TIG determined that the requested extension of time and increased budget is needed to continue restoration actions at a scale commensurate with the DWH injury. Through Resolution OO-2026-016, the Open Ocean TIG approved a project extension of 5 years, for a total estimated duration of 11 years. The project budget was also increased by $21 million from $28,295,500 to $49,295,500 to continue implementation of approved activities described below and in the project change analysis document, “Evaluation of Changes to the Project Mesophotic and Deep Benthic Communities - Coral Propagation Technique Development Project (ID 235).”

B. Project Tasks and Activities

The project consists of the following tasks, which may be implemented concurrently. Dates provided below are estimated and subject to change as project activities are adaptively managed.

Task 1: Implementation Planning Phase (completed)

This task was completed in 2022. Project managers integrated mapping, habitat suitability and larval dispersal modeling and habitat assessment datasets for restoration site identification and for methods development and planning. This also included coordinating field and lab efforts and coordinating data management, infrastructure, and analyses, including performance review and results analysis and adaptive management of the project through implementation planning workshops. Project managers conducted stakeholder engagement; developed an adaptive management plan with milestones for technical and strategic evaluations to assess progress towards project objectives and overall restoration outcomes; and completed implementation work plans, budgets, environmental compliance, and reporting of project results.

Timeline: This activity was undertaken in 2020-2022.

Roles: NOAA led this activity with support from DOI.

Products or Deliverables: Five-year Implementation Plan and environmental compliance analysis as well as planning phase reports and products were completed and publicly shared through the project DWH annual reports.

Task 2: Project Management and Administration

The purposes of this ongoing task are to:

- Provide coordination to ensure funding mechanisms are in place to execute project activities
- Ensure annual reporting to the public on the NOAA Data Integration Visualization Exploration and Reporting (DIVER) application occurs
- Ensure OO TIG review and approval, as appropriate, for (1) any necessary project changes based on the TC SOPs for project change analysis, (2) key project milestones such as completion of any outstanding environmental compliance, (3) records that need to be submitted to the Administrative Record, and (4) materials prepared during project completion and closeout
- Oversee the project's scope, schedule, and budget
- Ensure communication of project progress to the Open Ocean TIG, NOAA and DOI
- Engage stakeholders and coordinate field and lab efforts through annual workshops
- Compile monitoring information and ensure MAM reports are completed

Further, NOAA and DOI will ensure that all elements are sequenced and implemented in accordance with the OO RP2/EA and TC SOPs including implementation of the project's Monitoring and Adaptive Management Plan.

Timeline: 2020-2031

Roles: NOAA is and will continue leading this activity with support from DOI.

Products or Deliverables: DIVER reports, annual implementation updates to the OO TIG, annual project workshops.

Task 3: Implementation- Field Data Collection and Analysis

This activity will continue to conduct field-based propagation activities and deploy substrates at injured and reference areas for successful propagation methods using natural and artificial substrates. Coral propagation technique development-related field operations include the targeted collection of coral specimens (whole colonies, fragments for genetics analysis, commensal organisms, associated sediments or substrates, and water containing gametes or larvae) and small-scale deployments of experimental settlement substrates on landers to test coral recruitment potential and performance. Substrates will continue to be tested in the lab and in the field with a small team of coral biologists working to understand water chemistry, biofilms, and larval settlement in the lab aquaria and in the natural environment to improve the effectiveness of deployed substrates. In situ testing will be conducted with sufficient replication to allow robust statistical analysis of the comparison among treatments, with repetitive monitoring over time of multiple deployments in each of multiple sites and with deployments of instrumented landers at each site to understand environmental variables contributing to success or failure of this approach and the health of the resident corals.

This activity also includes continuing lab work to include development of coral husbandry techniques and specialized analyses of biological and environmental samples, as well as desktop processing, analysis, and reporting. Lab husbandry is intended for out-planting to the natural environment via artificial substrates but also provides a controlled environment for multi-factor studies to improve health and condition of captive corals, including spawning adults and larval recruits, using new techniques like probiotics and feeding automation. The lab work is done in acknowledgement of the project's focus on lab-based studies of basic biology and technique development needed for asexual and sexual propagation.

Timeline: Field and lab tests will take place in years 2021-2031.

Roles: NOAA is and will continue leading this activity with support from DOI.

Products or Deliverables: This activity will report data and analysis results according to the standards established in the project monitoring and adaptive management plan.

Task 4: Restoration monitoring and adaptive management

As part of the OO RP2/EA (Appendix A), the Open Ocean TIG developed a Monitoring and Adaptive Management Plan (MAM Plan) for this project. The MAM Plan will continue to be implemented in accordance with Section 3.2 of the OO RP2/EA. Monitoring of restoration activities will follow the MAM Plan in cooperation with project partners and will be updated as needed based on implementation activities.

Timeline: 2020-2031

Leads: NOAA is and will continue leading this activity with support from DOI

Products or Deliverables: Revisions of MAM Plan as needed, annual DIVER monitoring report, final MAM report

Task 5: Project Wrap-up and Closeout

The purpose of this task is to complete the closeout reporting and processes described in both the Open Ocean TIG project completion and closeout guidelines and the Trustees' Monitoring and Adaptive Management Procedures and Guidelines Manual. The TIG completion and closeout reports are in addition to final MAM reporting for the individual tasks with report deliverables, and in addition to any administrative reporting for project closeout from the Trustee Council/LAT such as final DIVER progress reporting and financial reconciliation. NOAA is and will continue leading this wrap-up and close-out reporting with support from DOI, incorporating, as appropriate, material from final reports from partners.

Timeline: 2030-2031

Leads: NOAA is and will continue leading this activity with support from DOI

Products or Deliverables: Final project completion report, Final MAM Report and data information package, financial reconciliation information for OO TIG project close-out resolution, and final annual DIVER report.

C. Project Estimated Budget and Timeline

Budget components, estimated dollar values, and expected timelines are provided in the table below. Budget estimates have been revised to reflect the additional $21M authorized by the Open Ocean TIG as a $18,671,072 increase in the NOAA budget and a $2,328,928 increase in the DOI budget for project management and administration, implementation and monitoring and adaptive management, and contingency. Amounts and dates provided below are estimated and subject to change as project activities are adaptively managed. The Implementing Trustees may expend funds for their documented costs related to management, planning, implementation, monitoring, and adaptive management of the Project in accordance with requirements set in the approving Open Ocean TIG resolution OO-2026-016. Implementing Trustees can expend funds up to the total amount allocated as needed across the Budget Components identified below.

Cost Category	Estimated Budget	NOAA Budget	DOI Budget	Expected Timeline
Implementation Planning Phase (Completed)	$1,090,931	$916,952	$173,979	2020-2022
Project Management and Administration	$3,364,288	$3,206,620	$157,668	2020-2031
Implementation and Monitoring and Adaptive Management	$41,253,995	$35,472,150	$5,781,846	2021-2031
Contingency	$3,586,286	$3,090,350	$495,935	2020-2031
Total Budget	$49,295,500	$42,686,072	$6,609,428	2020-2031

D. Project Implementation Guidelines

This project will be implemented in a manner consistent with the OO RP2/EA, Resolution OO-2026-016, and the Trustee Council Standard Operating Procedures for Implementation of the Natural Resource Restoration for the Deepwater Horizon (DWH) Oil Spill, revised August 2, 2021 (TC SOPs).

The Implementing Trustees shall track the progress of implementation and monitoring according to the TC SOPs and provide the OO TIG with status updates annually or as requested.

The Implementing Trustees shall maintain an updated DIVER project record and project folder on the OO TIG Project Implementation Library SharePoint site.

The Implementing Trustees shall provide project reports, products, and other documents to the OO TIG for review prior to their submission to the DIVER project record in accordance with guidelines provided on the OO TIG Implementation Library SharePoint site.

This Implementation Plan remains in effect until project completion/closeout is completed according to requirements outlined in this plan, Resolution OO-2026-016, and in the TC SOPs.