Gulf Coast Ecosystem Restoration Council
Categorical Exclusion Determination Form

This form is to be completed before the Gulf Coast Ecosystem Restoration Council (Council) uses one or more Categorical Exclusions (CEs) to comply with the National Environmental Policy Act (NEPA) for a specific action or group of actions, as appropriate. More information on the Council's NEPA compliance and use of CEs can be found in the Council's NEPA Procedures.

Proposed Action Title:

Comprehensive Living Shoreline Monitoring (AL_RESTORE_004_004_Cat2)

Proposed Action Location: *(State, County/Parish)*

Alabama, Mobile and Baldwin Counties

Proposed Action Description:

Implementation -- Utilizing the Comprehensive Living Shoreline Monitoring plan developed in the program's planning phase, the State of Alabama will monitor and assess the performance of at least ten proposed and existing living shoreline projects in coastal Alabama for a period of five years. This will allow for a robust comparison across all monitored projects, as well as an accurate evaluation of their success relative to specific site conditions, providing valuable information to resource managers, project proponents, homeowners and others interested in utilizing and promoting living shorelines techniques. This project could serve as an example pilot project for the Council to consider as it continues to plan and implement monitoring of living shoreline projects in watersheds across the Gulf.

Categorical Exclusion(s) Applied:

Council CEs: Section 4(d)(4)(i); NOAA CE E5 NAO 216-6A, specifically E5 for Research Activities

Council Use of Member Categorical Exclusion(s)

If the Categorical Exclusion(s) was established by a Federal agency Council member, complete the following. If not, leave this section blank and proceed to the segmentation section.

Member with Categorical Exclusion(s) DOC/NOAA

Has the member with CE(s) advised the Council in writing that use of the CE(s) would be appropriate for the specific action under consideration by the Council, including consideration of segmentation and extraordinary circumstances (as described below)?

☑ Yes ☐ No

Segmentation

Has the proposed action been segmented to meet the definition of a Categorical Exclusion? (In making this determination, the Council should consider whether the action has independent utility.)

☐ Yes ☑ No

Extraordinary Circumstances

In considering whether to use a Categorical Exclusion for a given action, agencies must review whether there may be extraordinary circumstances in which a normally excluded action may have a significant environmental effect and, therefore, warrant further review pursuant to NEPA. Guidance on the review of potential extraordinary circumstances can be found in Section 4(e) of the Council's NEPA Procedures. The potential extraordinary circumstances listed below are set forth in the Council's NEPA Procedures.

The Council, in cooperation with the sponsor of the activity, has considered the following potential extraordinary circumstances, where applicable, and has made the following determinations. (By checking the "No" box, the Council is indicating that the activity under review would not result in the corresponding potential extraordinary circumstance.)

☐ Yes ☑ No 1. Is there a reasonable likelihood of substantial scientific controversy regarding the potential environmental impacts of the proposed action?

☐ Yes ☑ No 2. Are there Tribal concerns with actions that impact Tribal lands or resources that are sufficient to constitute an extraordinary circumstance?

☐ Yes ☑ No 3. Is there a reasonable likelihood of adversely affecting environmentally sensitive resources? Environmentally sensitive resources include but are not limited to:

a. Species that are federally listed or proposed for listing as threatened or endangered, or their proposed or designated critical habitats; and

b. Properties listed or eligible for listing on the National Register of Historic Places.

☐ Yes ☑ No 4. Is there a reasonable likelihood of impacts that are highly uncertain or involve unknown risks or is there a substantial scientific controversy over the effects?

☐ Yes ☑ No 5. Is there a reasonable likelihood of air pollution at levels of concern or otherwise requiring a formal conformity determination under the Clean Air Act?

☐ Yes ☑ No 6. Is there a reasonable likelihood of a disproportionately high and adverse effect on low income or minority populations (see Executive Order 12898)?

☐ Yes ☑ No 7. Is there a reasonable likelihood of contributing to the introduction or spread of noxious weeds or non-native invasive species or actions that may promote the introduction, or spread of such species (see Federal Noxious Weed Control Act and Executive Order 13112)?

☐ Yes ☑ No 8. Is there a reasonable likelihood of a release of petroleum, oils, or lubricants (except from a properly functioning engine or vehicle) or reportable releases of hazardous or toxic substances as specified in 40 CFR part 302 (Designation, Reportable Quantities, and Notification); or where the proposed action results in the requirement to develop or amend a Spill Prevention, Control, or Countermeasures Plan in accordance with the Oil Pollution Prevention regulation?

Supplemental Information

Where appropriate, the following table should be used to provide additional information regarding the review of potential extraordinary circumstances and compliance with other applicable laws. The purpose of this table is to ensure that there is adequate information for specific findings regarding potential extraordinary circumstances.

Supplemental information and documentation is not needed for each individual finding regarding the potential extraordinary circumstances listed above. Specifically, the nature of an activity under review may be such that a reasonable person could conclude that there is a very low potential for a particular type of extraordinary circumstance to exist. For example, it would be reasonable to conclude that the simple act of acquiring land for conservation purposes (where

there are no other associated actions) does not present a reasonable likelihood of a release of petroleum, oils, lubricants, or hazardous or toxic substances.

For some types of activities, no supplemental information may be needed to support a finding that there are no extraordinary circumstances. For example, where the activity under review is solely planning (with no associated implementation activity), it may be reasonable to conclude that none of the extraordinary circumstances listed above would apply. In such cases, the table below would be left blank.

In other cases, it may be appropriate to include supplemental information to ensure that there is an adequate basis for a finding regarding a particular extraordinary circumstance. For example, it might be appropriate in some cases to document coordination and/or consultation with the appropriate agency regarding compliance with a potentially applicable law (such as the Endangered Species Act). In those cases, the table below should be used to provide the supplemental information.

Agency or Authority Consulted	**Agency or Authority Representative: Name, Office & Phone**	**Date of Consultation**	**Notes: Topic discussed, relevant details, and conclusions.** (This can include reference to other information on file and/or attached for the given action.)
DOC/NOAA	NMFS SERO PRD	March 25, 2020	ESA determination and concurrence
DOC/NOAA	NMFS SERO HCD	March 31, 2020	EFH consultation

Additional supplemental information may be attached, as appropriate. Indicate below whether additional supplemental information is attached.

Additional Information Attached: ☑ Yes ☐ No

If "Yes", indicate the subject:

DOC/NOAA CE documentation, NMFS ESA consultation, and NMFS EFH consultation.

Determination by Responsible Official

Based on my review of the proposed action, I have determined that the proposed action fits within the specified Categorical Exclusion(s), the other regulatory requirements set forth above are met, and the proposed action is hereby Categorically Excluded from further NEPA review.

Responsible Official *(Name)*

Responsible Official *(Signature)*

Date

BENJAMIN SCAGGS Digitally signed by BENJAMIN SCAGGS
Date: 2020.05.13 13:36:11 -05'00'

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

MEMORANDUM FOR: Gulf Coast Ecosystem Restoration (RESTORE) Council

FROM: Helen Chabot
NOAA RESTORE Program Lead

DATE: November 19, 2018

SUBJECT: NEPA Categorical Exclusion for the RESTORE Council's Alabama Comprehensive Living Shorelines Monitoring Program

Under its authority provided in the RESTORE Act signed by the President on July 6, 2012, and in compliance with its final procedures for implementing the National Environmental Policy Act (NEPA) and use of categorical exclusions as published in the Federal Register on May 5, 2015, the RESTORE Council (Council) is using a categorical exclusion (CE) of one of its federal members and the procedures as described below. The Council will follow National Oceanic and Atmospheric Administration's (NOAA)'s procedures for considering this type of action in compliance with NEPA. NOAA's Environmental Review Procedures for Implementing the NEPA, NOAA Administrative Order (NAO) 216-6A dated April 22, 2016, and the NOAA's Companion Manual for NAO 216-6A dated January 13, 2017 require all proposed projects be reviewed with respect to environmental consequences on the human environment.

Section 4(d)(4) of the Council's NEPA procedures enables the Council to use CEs of its federal member agencies "when that federal agency advises the Council that use of the CE would be appropriate for the specific action under consideration by the Council." (https://www.restorethegulf.gov/sites/default/files/documents/pdf/Gulf%20Coast%20Ecosystem%20Restoration%20Council%20NEPA%20Procedures.pdf). More information on the Council use of member CEs can be found in the administrative record for the Council's NEPA procedures. NOAA has reviewed this action and advises the Council that use of CE E5 would be appropriate for the specific action under consideration by the Council.

Description of Action

The RESTORE Council proposes to fund the Alabama Comprehensive Living Shorelines Monitoring Program. The Alabama Department of Conservation and Natural Resources (ADCNR) will develop and implement the program, to assess and document the performance and efficacy of living shoreline projects in coastal Alabama. This comprehensive monitoring effort will develop a standard set of monitoring parameters and implement a five (5) year living shorelines monitoring program that will allow for a robust comparison across all monitored projects, as well as an accurate evaluation of their success relative to specific site conditions,

providing valuable information to resource managers, project proponents, homeowners and others interested in utilizing and promoting living shorelines techniques.

Specific Actions/Activities:

- Develop standard set of monitoring parameters. This may include such parameters as shoreline position, breakwater aerial extent and height, cross-shore topographic and bathymetric profiles, vegetation density and species composition, encrusting organism counts and/or measurements of secondary productivity or other similar parameters.
- Develop a standard monitoring protocol based on above noted parameters.
- Finalize monitoring site list.
- Implement standardized monitoring protocol.
- Prepare annual monitoring reports.
- Prepare final program reports.

This project will be funded by the RESTORE Council, Funded Priority List, Project ID AL_RESTORE_004_004_Cat1/Cat 2.

Considering Extraordinary Circumstances

Extraordinary circumstances (NAO 216-6A, Companion Manual, par. 4.A) requires consideration of extraordinary circumstances to determine whether a normally excluded action may have significant impacts. If one or more extraordinary circumstances are present, an evaluation and explanation of the context and intensity of potential impact are required to be discussed.

The RESTORE Council evaluated the proposed action and potential environmental effects, to determine if it includes one or more extraordinary circumstances as listed in NOAA's Companion Manual for NOA 216-6A Section 4, and in the table below.

a	Adverse effects on human health or safety that are not negligible or discountable.
b	Adverse effects on an area with unique environmental characteristics (e.g., wetlands and floodplains, national marine sanctuaries, or marine national monuments) that are not negligible or discountable.
c	Adverse effects on species or habitats protected by the ESA, the MMPA, the MSA, NMSA, or the Migratory Bird Treaty Act that are not negligible or discountable.
d	The potential to generate, use, store, transport, or dispose of hazardous or toxic substances, in a manner that may have a significant effect on the environment.
e	Adverse effects on properties listed or eligible for listing on the National Register of Historic Places authorized by the National Historic Preservation Act of 1966, National Historic Landmarks designated by the Secretary of the Interior, or National Monuments designated through the Antiquities Act of 1906; Federally recognized Tribal and Native Alaskan lands, cultural or natural resources, or religious or cultural sites that cannot be resolved through applicable regulatory processes.

f	A disproportionately high and adverse effect on the health or the environment of minority or low-income communities, compared to the impacts on other communities (EO 12898).
g	Contribution to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of the species.
h	A potential violation of Federal, State, or local law or requirements imposed for protection of the environment.
i	Highly controversial environmental effects.
j	The potential to establish a precedent for future action or an action that represents a decision in principle about future actions with potentially significant environmental effects.
k	k) environmental effects that are uncertain, unique, or unknown.
l	The potential for significant cumulative impacts when the proposed action is combined with other past, present and reasonably foreseeable future actions, even though the impacts of the proposed action may not be significant by themselves.

The proposed action would include small scale, short term finfish and macro-invertebrate sampling using standard gear and methods, specifically gill nets, hand pulled seines and fyke nets. All sampling gear would be deployed for short durations in accordance with monitoring protocols. Vegetation sampling, which would include above-ground and below-ground biomass samples, will be collected using standard hand tools. Sampling will be conducted under existing Scientific Sampling Permits issued by the Alabama Department of Conservation and Natural Resources. Given the limited scale, duration and standard gear and techniques being utilized, there are no anticipated adverse effects on the natural or physical environment and no extraordinary circumstances are involved.

Determination

The proposed action falls into the category of actions subject to categorical exclusions identified in Appendix E of NOAA's Companion Manual to NAO 216-6A, specifically E5, "Activities involving invasive techniques or methods that are conducted for scientific purposes, when such activities are conducted in accordance with all applicable provisions of the Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and Magnuson-Stevens Fishery Conservation and Management Act. Such activities will be limited to impacting living resources on a small scale relative to the size of their populations, and limited to methodologies and locations to ensure that there are no long-term adverse ecosystem impacts."

Based on the foregoing information it has been determined that:

- The RESTORE Council's funding of the Alabama Comprehensive Living Shorelines Monitoring Program described herein clearly fits into CE E5 research activities, involving research activities for scientific purposed conducted on living marine resources on a small scale, in accordance with federal regulations;
- the proposed action does not impact or involve one or more extraordinary circumstances;

- this action has independent utility and has not been segmented from an independent action with potential for significant direct, indirect or cumulative impacts; and
- NOAA has advised the Council through this memorandum that use of the CE would be appropriate for the specific action under consideration by the Council.

This memorandum will remain in the RESTORE Council's project files.

GULF COAST ECOSYSTEM RESTORATION COUNCIL
New Orleans, Louisiana

March 9, 2020

Project Name: Alabama Comprehensive Living Shoreline Monitoring (Implementation)
RESTORE Reference Number: AL_RESTORE_004_004_Cat2
NMFS consultation tracking #: SERO-2019-03493

Mr. David Bernhart
Assistant Regional Administrator
Protected Resources Division
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Mr. Bernhart,

The Gulf Coast Ecosystem Restoration Council (the Council) would like to request expedited informal consultation pursuant to Section 7 of the Endangered Species Act (ESA) for the Alabama Comprehensive Living Shoreline Monitoring (AL CLSM) program. After extensive coordination with Michael Tucker and Kevin Owen of your staff, the Council previously requested consultation for this project in an email dated March 4, 2019, and received notice that this consultation had been assigned the following tracking numbers: SER-2019-19820; SERO-2019-00297. On October 29, 2019, the Council updated our request to pursue the expedited informal consultation process and received notice that this consultation had been assigned the tracking number SERO-2019-03493. Since that time, we received additional feedback from the National Marine Fisheries Service (NMFS) and have continued to work closely with both Michael Tucker and Kevin Owen to address concerns and to revise the proposed AL CLSM program. The Council is providing the following information as an update to that request.

Prior to approving funding for this proposed project, which would be administered by the Alabama Department of Natural Resources and Conservation (AL DCNR), the Council must ensure that all applicable environmental compliance requirements have been addressed. The proposed project includes implementation of the AL CLSM program at living shorelines located in Baldwin and Mobile Counties, Alabama. The AL CLSM program consists of bathymetric and topographic surveys, wave attenuation evaluations, determination of the density and species of encrusting organisms, macro-benthic

invertebrate and nekton utilization, and water chemistry and quality testing at or around the several Alabama living shorelines project locations. The specific living shoreline project locations all fall within a project area that includes tidal, coastal, and nearshore marine waters in the State of Alabama.

The Council has determined that the proposed project may affect but is not likely to adversely affect (NLAA) federally-listed species, as described below, and is therefore requesting concurrence with our determinations pursuant to Section 7 of the ESA of 1973, as amended (16 U.S. Code § 1536), and the consultation procedures at 50 Code of Federal Regulations Part 402 (50CFR 402).

Pursuant to our request for expedited informal consultation, the Council is providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or designated critical habitat (DCH) that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or DCH.

1. PROPOSED ACTION

a. Description of the proposed action:

The AL CLSM program consists of bathymetric and topographic surveys of living shorelines, wave attenuation evaluations along the living shorelines, determination of the density and species of encrusting organisms on and around the living shorelines, macro-benthic invertebrate and nekton utilization of the living shorelines, and water chemistry and quality testing at existing Alabama coastal living shorelines projects. Monitoring work will occur in tidal, coastal, and nearshore marine waters in Alabama between 30.56342°N, -88.07488°W in the north and 30.25332°N, -87.82230°W in the south. Sampling and monitoring will be contained in an area of coastal Alabama from Coffee Island (Grand Bay) on the west, eastward to Perdido Bay, and from north of Fort Morgan and Dauphin Island into north Mobile Bay.

The number of trips and calendar work windows will be determined during development of the monitoring plan during the first phase of the project, so the precise numbers of trips and details of sampling are currently unknown. However, every effort will be made to combine sampling trips where possible in order to reduce the total number of trips. This is standard practice to maximize efficiency for data collection.

Sites may be accessed by foot or by small boats. Boats used will be shallow-draft, outboard-powered aluminum or fiberglass skiffs (e.g. Carolina Skiffs) 16-22 feet in length from the Dauphin Island Sea Lab and USA small boat fleets. The boats will be traveling at low speeds utilizing look-outs and selecting routes that originate from the nearest available launch site to minimize travel distance. Although the exact number of trips and the specific activities to be conducted on each trip cannot be identified at this stage, we anticipate approximately 150 boat trips per year, and not more than 300. This number of trips is to allow sampling at up to 10 living shorelines sites across multiple months of each year by two teams of researchers. The AL CLSM program is expected to involve five years of surveying, sampling, and monitoring. For context, the total boat miles for the

entire 5-year project would be dwarfed by the recreational boat use in Alabama's coastal waters on a single busy day.

The different surveying and monitoring types are described below.

Bathymetric and Topographic Surveys

To accomplish the topographic and bathymetric surveys, investigators would survey the height and aerial extent of the living shorelines. These surveys would be completed through the use of a real-time kinematic global positioning system (RTK GPS) of the structures. Shoreline position would also be surveyed using RTK GPS by walking the shoreline landward of the project site. The topographic and bathymetric profiles would also be surveyed along set transects using RTK GPS and/or a depth finder fitted with differential GPS (e.g., Ceeducer) for portions of the project area that are boat-accessible.

Wave Attenuation

Wave attenuation benefits of the living shoreline structures would be measured through the use of paired wave gauges positioned landward and seaward of selected structures. Wave gauges would be mounted on hand-driven poles.

Encrusting Organism Density and Species Composition Surveys

During each survey event, encrusting organism density and species composition on and around living shoreline structures would be surveyed using two different methods. In the first method, investigators would identify and count bivalves within an excavated area, utilizing methods that report density on a square meter (m^2) basis (e.g., quadrat sampling). The different structure zones (e.g., upper, lower, seaward side, shoreward side) would be included in the sampling design to adequately capture spatial variability. In the second method, the investigators would identify and count invertebrates within colonization trays set on, or adjacent to, the structures (Eggleston, et al., 1998; Gregalis, et al., 2009).

Macro-benthic invertebrate and other nekton (including fish) utilization of the structures would be surveyed using a variety of equipment possibly including trawl nets and seines. Each individual organism captured would be counted and identified to the lowest taxonomic designation possible (family or lower). From each sample, a representative sub-sample of twenty individuals of each species would be measured for total length (TL), and a total group biomass would be recorded.

For fish and mobile invertebrate sampling, the Principle Investigator (PI) will use a variety of gears including trawls, seines, cast net, drop sampler, and traps (crab and minnow). A critical component of sampling design is for the PI to match gears and procedures as closely as possible to those used by AL DCNR Marine Resource Division Fisheries Assessment and Monitoring Program (MRD FAMP) sampling. By doing so, the PI can greatly enhance the power of comparisons of assemblages associated with living shorelines to "reference" assemblages in coastal areas in the wider region, by using the monthly MRD FAMP data as the reference data set. The utilization of the existing data also minimizes the additional redundant sampling needed to obtain this background reference data.

Sampling may be conducted year-round. In the summer, the sampling is expected to be performed on a monthly or bi-monthly basis, with a lower frequency during winter. Most sampling will be during daylight hours only. Any night-time sampling will use only active gears.

Proposed seine net specifications are 50 feet (ft) long, 3/16 inch (in.) knotless mesh, 3/16 in. knotless bag 4 ft x 4 ft. Seine hauls are made from 60 feet offshore to the shoreline, perpendicular to the shoreline. The bag can be rapidly inspected at the water's edge, and individuals not required for further processing can be immediately released with minimal handling.

The trawl nets specifications are directly from AL DCNR MRD FAMP standard operating procedures (see below). Given the size of the living shoreline structures, trawl net tow times will not exceed 5 minutes.

The proposed specifications of the 16 ft Otter Trawl are 2 Seam Net with 3/16 in. interlinear in the bag; Head Rope – 3/8 in. polydac, 14.2 ft-long, 6 ft leg lines, with 2 (3 in. x 3in.) corks; Bottom Rope – 3/8 in. polydac, 17.8 ft-long, 6 ft leg lines, with 3/16 in. chain for lead lines; Chains – 17 in. (17 links) with 8 hangs between each chain (7 chains attached to bottom rope); Webbing – 1 3/8 in. (#9); Bag – 1 3/4 in.; Inner liner – 3/16 in. knotless seine; Main tow line – 3/8 in. polydac at a length of 55 ft (measured from tow point on vessel to bridles); and Bridle length – 35.5 ft.

The cast nets proposed to be used for habitat-specific samples in shallow open waters are 8 ft radius, 3/16 in. cast nets. These nets sample a small area in shallow water and are retrieved immediately, so any protected species can be easily avoided.

A drop sampler is a large fiberglass cylinder, approximately 1.5 meter (m) in diameter, that is suspended from a boom off the front of a shallow-draft boat. To sample, the boat is maneuvered into position by hand by people in the water, the drop is released and then pressed into the substrate to form a seal. The animals are initially cleared using dip nets, before the sampler is pumped dry to allow all remaining animals to be removed. This is one of the few gears that can provide comparable samples between vegetated (e.g. marsh grass) and open water habitats. It is particularly efficient at sampling shrimp, crabs and small benthic fishes. Larger and more mobile species tend to avoid capture. Any protected species can be easily avoided during deployment.

Standard recreational minnow and crab traps will be used. Soak times will be minimized to ensure any small air-breathing animals trapped (e.g. terrapins) can be released unharmed.

Water chemistry and quality measurements would also be collected at each site during these sampling events. Data collected would include temperature, dissolved oxygen, salinity and conductivity. Since these measurements will be conducted in conjunction with the other survey and monitoring programs, no additional sampling trips or vessels would result from the water sampling methods.

b. Description of the project purpose:
The purpose of this comprehensive monitoring activity is to evaluate the effectiveness of specific living shorelines techniques relative to specific site conditions. This will include an assessment of physical parameters (such as wave energy, sediment composition, erosion rates etc.). Ultimately, the goal of this effort is to determine best practices given site-specific physical conditions.

While it is generally accepted that living shorelines can provide erosion control and increased ecosystem services, more data is needed on living shorelines efficacy. This project will provide valuable data on the benefits of a wide range of proposed and existing living shorelines projects. This program will provide data on shoreline stabilization, biological productivity and similar parameters. These data can then be used to inform resource managers, consultants, homeowners and others decision makers interested in promoting and utilizing living shorelines in place of traditional shoreline armoring.

c. Description of minimization measures:
Measures proposed to minimize potential adverse impacts of protected species are listed below.

- Any potential adverse impacts on Gulf sturgeon, the three sea turtle species that may be in the project area, and marine mammals would be minimized because this monitoring project will be conducted by scientists who have an awareness of the potential impacts of the project on marine species.
- Interactions with sea turtles are particularly unlikely as most work will occur within Mobile Bay and Mississippi Sound where turtles are very rare.
- Boat operators will follow NOAA NMFS Southeast Region's "Vessel Strike Avoidance Measures and Reporting for Mariners." If protected species are observed, the project researchers will make every attempt to avoid them by utilizing the necessary distance specified by the NMFS.
- Researchers will visually observe the area prior to using trawls, seine nets or other sampling gear to avoid interactions with protected species.
- No nets will be left unattended in the water. Nets will be visually monitored while in the water so as to avoid interactions with protected species.
- Activities that could interact with protected species will be conducted only during daylight hours.
- Since turbidity is not expected to be created, turbidity control Best Management Practices will not be utilized.
- Trips will be combined whenever possible to minimize the total number of trips performed.

2. ACTION AREA
Pursuant to 50 CFR § 402.02, the term *action area* is defined as “all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action.” Accordingly, the action area typically includes the affected jurisdictional waters and other areas affected by the authorized work or structures within a reasonable distance.

For the purposes of this consultation, the Council has defined the action area to include all tidal, coastal, and nearshore marine waters in the State of Alabama located between 30.56342°N, -88.07488°W in the north and 30.25332°N, -87.82230°W in the south. The action area encompasses an area of Coastal Alabama from Coffee Island (Grand Bay) on the west, eastward to Perdido Bay, AL and from north of Fort Morgan and Dauphin Island into north Mobile Bay, as shown in Figure 1.

Exact details of individual study sites are to be determined when final site selection occurs during phase one of the project. The candidate sites occur in shallow (<2m) waters with sandy/muddy substrates and minimal submerged aquatic vegetation. Hard-bottom structure is limited to the living shoreline structures themselves. No corals or mangroves occur within the study area. The candidate sites and surrounding waters are used primarily by recreational anglers in small boats. Living shoreline structures are identified by existing warning signs (hazards to boating) and any equipment deployed can be within the designated areas, thereby minimizing interactions with recreational anglers.

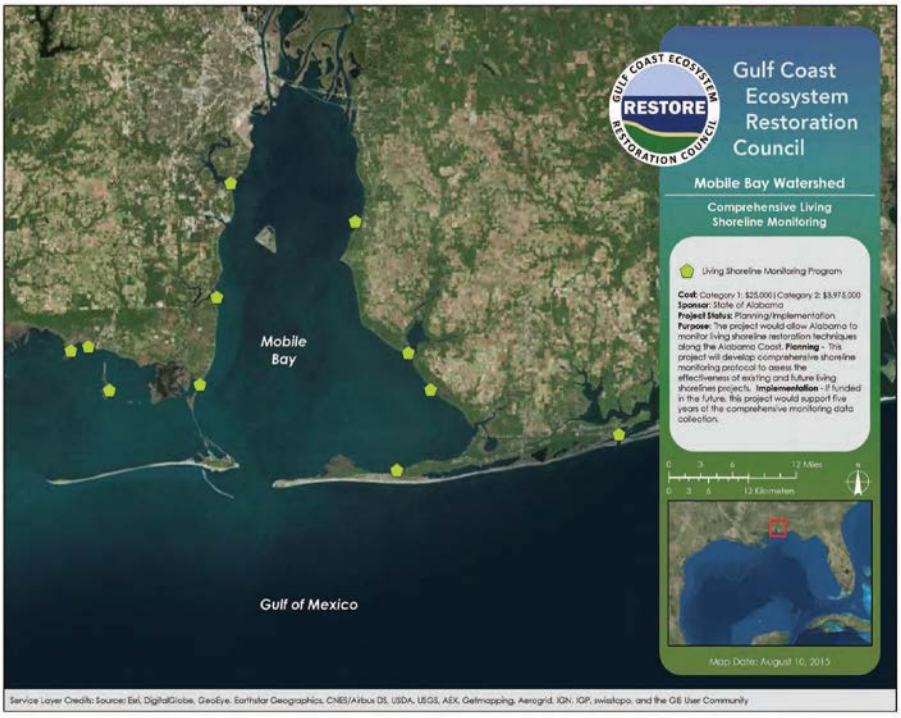

Figure 1. Action Area includes the highlighted living shoreline areas and the intervening waters (source Council. 2019. Biological Effects Form)

3. AFFECTED SPECIES/HABITAT

Project activities have the potential to affect the listed species as shown in Table 1 below. Table 2 provides the species use of the action area.

Table 1: Species in the action area

Species	ESA Listing Status	Listing Rule/Date	Most Recent recovery plan date	Council's Effect Determination (Species)
Green sea turtle[1]	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Kemp's ridley sea turtle	E	35 FR 18319/ December 2, 1970	September 2011	NLAA
Loggerhead sea turtle[2]	T	76 FR 58868/ September 22, 2011	January 2009	NLAA
Gulf sturgeon	T	56 FR 49653/ September 30, 1991	September 1995	NLAA

We believe the project will have no effect on hawksbill and leatherback sea turtles, due to the species' very specific life history strategies, which are not supported within the project area. Leatherback sea turtles have pelagic, deepwater life history, where they forage primarily on jellyfish. Hawksbill sea turtles typically inhabit inshore reef and hard bottom areas where they forage primarily on encrusting sponges.

Table 2: Species use of the Action Area

Species	Species Use of the Action Area and/or DCH Description
Green sea turtle	With the exception of post-hatchlings, green sea turtle live in nearshore tropical and subtropical waters (generally high energy oceanic beaches) where they feed on marine algae and seagrasses (NOAA, 2014).The green sea turtle forages by day in shallow flats and seagrass meadows where they eat seagrasses, mangrove leaves, and algae. They sleep within scattered rock ledges, oyster bays and coral reefs. The project site contains shallow protected waters where green sea turtles could be present; however, the absence of SAV beds reduces the likelihood of foraging at or near the project site.
Kemp's ridley sea turtle	Kemp's ridley habitat largely consists of sandy and muddy areas in shallow, nearshore waters less than 120 ft (37 m) deep, although they can also be found in deeper offshore waters. These areas support the primary prey species of the Kemp's ridley sea turtle, which consist of swimming crabs, but may also include fish, jellyfish, and an array of mollusks (NOAA, 2014). Their foraging and habitat preferences indicate their potential for use of the areas for foraging.
Loggerhead sea turtle	Adult loggerhead sea turtles utilize a variety of habitats. They may be found miles out to sea and in inshore areas such as

[1] North Atlantic and South Atlantic Distinct Population Segment (DPS)

[2] Northwest Atlantic Ocean DPS

	bays, lagoons, salt marshes, creeks, ship channels and mouths of large river. Juveniles are omnivorous and forage on crabs, mollusks, jellyfish, and vegetation at or near the surface. The project site includes estuarine waters where loggerhead sea turtles may be present.
Gulf sturgeon	Gulf sturgeon are opportunistic feeders and forage over large areas. During foraging periods, Gulf sturgeon generally occupy shoreline areas between depths of 6.5-13 ft (2-4 m) and characterized by low-relief sand substrate (Fox et al. 2002). Gulf sturgeon are selecting foraging habitat based on substrate composition and depth, rather than infaunal invertebrate density, abundance or diversity. The site is not near a spawning river or migratory pathway. Onsite conditions within the action area are unfavorable for sturgeon foraging; however, we cannot rule out the presence of transient individuals.

The proposed project is not in, or affecting, Designated Critical Habitat (DCH).

4. ROUTE(S) OF EFFECT TO SPECIES:

One potential route of effects to species is from vessel strikes when project-related boats are transiting to and from monitoring areas, and during the monitoring, sampling and surveys. Sea turtles and Gulf sturgeon may be physically injured if struck by vessels. We believe this effect will be discountable due to the proposed implementation of vessel strike avoidance measures and the ability of these species to move away from moving vessels. All sampling vessels will maintain a minimum of 1 ft. of clearance above the existing bottom. In addition, boat operators will follow NOAA NMFS Southeast Region's "Vessel Strike Avoidance Measures and Reporting for Mariners." All workers are to observe water-related activities for the presence of these species. If a sea turtle or Gulf sturgeon is seen within 100 yards of moving vessels, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment within 50 ft of a sea turtle or Gulf sturgeon. Activities may not resume until the protected species has departed the project area of its own volition or it is deemed that there has been adequate time for such departure to have occurred. Further, vessel operations would be limited to daylight hours so workers would be better able to see listed species, if present, and avoid interactions with them.

Sea turtles and Gulf sturgeon may be affected by being temporarily unable to use the survey and sampling sites due to avoidance of human presence and activities. We believe habitat displacement effects to these species will be insignificant given the relatively small area being affected by the activities at each living shoreline site, the availability of similar habitat nearby, and the limited duration and frequency of the individual surveys that comprise the project.

A portion of the proposed action will require the use of trawl gear; trawl gear is known to have the potential to take ESA listed species. To help avoid potential take of endangered species, in particular sea turtles, under 50 CFR 223, trawls are required to include turtle exclusion devices (TEDs), with certain exceptions and exemptions from these

requirements. Under 50 CFR 223.206(d)(2)(ii), exemptions include specified maximum tow times and non-mechanized operations. To be eligible for these exemptions, the trawl tow times cannot exceed 55 minutes from April 1 through October 31 and 75 minutes from November 1 through March 31. The trawl tow times for the AL CSLM program are expected to be significantly shorter, on the order of 5 minutes. Additionally, the vessel must have on board no power or mechanical-advantage trawl retrieval system (i.e., any device used to haul any part of the net aboard). In the AL CLSM program, the trawls will be deployed and retrieved manually without any mechanical assistance. Therefore, the trawling proposed in the AL CLSM program is exempt from the TED requirements under 50 CFR Part 223.

Potential adverse effects to listed species from the use of excluded trawls in research, among other things, was analyzed by NMFS in the April 18, 2014, biological opinion (NOAA, 2014) concerning shrimp trawling in the Southeastern United States, as regulated under the ESA Sea Turtle Conservation Regulations and as managed under the Magnuson-Stevens Fishery Conservation and Management Act. The Incidental Take Statement of the 2014 Biological Opinion authorizes incidental take associated with said authorized research. Since the proposed trawling for research and scientific purposes has been analyzed and authorized under that 2014 Biological Opinion, this activity will not be addressed further in the present ESA consultation.

A portion of the proposed action will require the use of seine nets along the shoreline and the shallow edges of the living shoreline. The potential for this gear to adversely affect listed species is discountable because these relatively small (50 ft) nets are deployed within 60 ft of the shoreline edge and pulled slowly by field biologists walking shoreward. Since the seines are pulled by hand, any sea turtle or Gulf sturgeon in the vicinity of the net would be able to avoid the net and/or be detected by the biologists and avoided. It is extremely unlikely that a listed species would be captured in seine net sampling during the implementation of the proposed action, given the sampling locations, gear size, deployment speed, and haul distance. In addition, the nets will not be deployed if a listed species is seen in the sampling area unless, and until, either the animal(s) is(are) seen to leave the area, or it is deemed that there has been adequate time for such departure to have occurred. Based on these approaches, we believe the chances of adverse effects to listed species are discountable.

A portion of the proposed action will require the use of a drop sampler along the shoreline and shallow marsh edge within the coastal basins. The use of this gear is not likely to adversely affect listed species because of the small size of the sampling area (1 m^2), and the manual deployment of the device which can easily avoid any ESA-listed species in the sampling area. The equipment will not be deployed if a listed species is seen in the sampling area unless and until the animal(s) is(are) seen to leave the area, or it is deemed that there has been adequate time for such departure to have occurred. The likelihood of a listed species being captured in drop samples during the implementation of the proposed action, given the gear design and deployment method is discountable.

A portion of the proposed action will require the use of a one m^2 quadrat to estimate the density of alive and dead oysters at various life history stages. The 1 m^2 PVC quadrat frame is deployed by divers and will have no effect on listed or protected species.

5. ROUTES OF EFFECT TO CRITICAL HABITAT
The project is not located in designated critical habitat, and there are no potential routes of effect to any designated critical habitat.

6. DETERMINATION:
The Council has reviewed the proposed project for its impacts to federally listed species and their DCH. The Council has concluded the project may affect but is not likely to adversely affect the species listed in table 1 and will not affect any DCH. This analysis was prepared based on the best scientific and commercial data available.

The Council is requesting NMFS's written concurrence with these determinations. The Council appreciates your cooperation in completing this informal Section 7 consultation by concurring with the Council' effect determination in a timely manner. If NMFS disagrees with the Council's effect determination and requests formal Section 7 consultation or to address any additional information needs or suggested modifications of the action, please contact me at phone number 504-252-7716 or by an email addressed to heather.young@restorethegulf.gov. Please reference file name and number, Alabama Comprehensive Living Shoreline Monitoring (Implementation) AL_RESTORE_004_004_Cat2, in all correspondence related to this consultation. Thank you for your assistance.

Sincerely,

Heather Young

Digitally signed by Heather Young
Date: 2020.03.09 15:49:49 -05'00'

Heather Young
Ecosystem Restoration Specialist

Literature Cited

Eggleston, D.B., L.L. Etherington, and W.E. Elis. 1998. Organism response to habitat patchiness: Species and habitat-dependent recruitment of decapod crustaceans. J. Exp. Mar. Biol. Ecol. 223: 111–132

Gregalis, K.C., M.W. Johnson, and S.P. Powers. 2009. Restored oyster reef location and design affect responses of resident and transient Fish, crab, and shellfish species in Mobile bay, Alabama. Transact. Am. Fish. Soc. 138: 314-327.

NOAA. 2014. Endangered Species Act – Section 7 Consultation Biological Opinion. Reinitiation of Endangered Species Act (ESA) Section 7 Consultation on the Continued Implementation of the Sea Turtle Conservation Regulations under the ESA and the Continued Authorization of the Southeast U.S. Shrimp Fisheries in Federal Waters under the Magnuson-Stevens Fishery Management and Conservation Act (MSFMCA). National Marine Fisheries Service, St. Petersburg, FL. April 18, 2014.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
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St. Petersburg, Florida 33701-5505
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03/25/2020

F/SER31:MT
SERO-2019-03493

Heather Young
Ecosystem Restoration Specialist
Gulf Coast Ecosystem Restoration Council
500 Poydras Street, Suite 1117
New Orleans, LA 70130

Ref.: Alabama Comprehensive Living Shoreline Monitoring Project; AL_RESTORE_004_004_Cat2
EXPEDITED TRACK

Dear Heather:

This letter responds to your March 9, 2020, request pursuant to Section 7 of the Endangered Species Act (ESA) for consultation with the National Marine Fisheries Service (NMFS) on the subject action.

We reviewed the action agency's consultation request document and related materials. Based on our knowledge, expertise, and the action agency's materials, we concur with the action agency's conclusions that the proposed action is not likely to adversely affect the NMFS ESA-listed species and/or designated critical habitat. This concludes your consultation responsibilities under the ESA for species and/or designated critical habitat under NMFS's purview. Reinitiation of consultation is required and shall be requested by the action agency or by NMFS where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) take occurs; (b) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in this consultation; (c) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not previously considered in this consultation; or (d) if a new species is listed or critical habitat designated that may be affected by the action.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Michael Tucker, Consultation Biologist, at (727) 209-5981 or by email at Michael.Tucker@noaa.gov.

Sincerely,

SHOTTS.KELLY.MARISE.1365865457
Digitally signed by SHOTTS.KELLY.MARISE.1365865457
Date: 2020.03.25 10:43:50 -04'00'

for David Bernhart
Assistant Regional Administrator for Protected Resources

File: 1514-22.c

Heather Young <heather.young@restorethegulf.gov>

Re: any EFH concerns?

1 message

Heather Young <heather.young@restorethegulf.gov> Tue, Mar 31, 2020 at 9:30 AM
To: "January.Murray@noaa.gov" <january.murray@noaa.gov>
Cc: Rusty Swafford - NOAA Federal <rusty.swafford@noaa.gov>, _NMFS ser HCDconsultations <nmfs.ser.hcdconsultations@noaa.gov>

Thank you very much January. We appreciate Hcd's quick response !
Heather

On Tue, Mar 31, 2020 at 9:21 AM January.Murray@noaa.gov <january.murray@noaa.gov> wrote:

> Hello Heather,
> The NMFS has reviewed the proposed Alabama Comprehensive Living Shoreline Monitoring Project. Based on project locations and minimal impacts to estuarine mud bottom and water column, the National Marine Fisheries Service, Habitat Conservation Division, does not object to the project as proposed. Unless modifications to this proposal are made, no further consultation on effects to essential fish habitat is necessary.
> Thank you for your coordination,
> January Murray
>
> On Mon, Mar 30, 2020 at 4:42 PM Rusty Swafford - NOAA Federal <rusty.swafford@noaa.gov> wrote:
>
> > Good afternoon January,
> >
> > Can you please review this monitoring plan. If you have any questions feel free to contact Heather by phone.
> >
> > Thanks,
> >
> > Rusty
> >
> > ---------- Forwarded message ---------
> > From: **Heather Young** <heather.young@restorethegulf.gov>
> > Date: Mon, Mar 30, 2020 at 4:14 PM
> > Subject: any EFH concerns?
> > To: Rusty Swafford - NOAA Federal <rusty.swafford@noaa.gov>
> >
> >
> > Hi Rusty,
> > I need an EFH check in. The original RESTORE Bucket 2 FPL 1 included an AL Comprehensive Living Shorelines Monitoring project with two components, planning ($25K) and implementation ($3,975,000). The planning component was approved as

Category 1 to develop a 5Yr monitoring plan for living shoreline projects. The implementation component was included in the FPL as Category 2 (prioritized for future review but not approved as environmental compliance was not yet complete). I am now working with AL to get all environmental compliance complete so the Council can consider amending the FPL to approve the $3,975,000 in funding for implementation and move it from Category 2 to Category 1.

ESA consultation is finally complete (took over a year, end result is gill nets were taken out as a method due to sea turtle concerns, PRD contact is Mike Tucker).
I just touched back in with Helen Chabot (we are using a NOAA NEPA CE).

Can you take a look for EFH review. I have the NEPA and ESA documentation attached as a description of the program and the anticipated monitoring methods. Note....the monitoring plan has not yet been developed itself but AL and the PIs know the types of sampling they envision doing.

Thanks and I will give you a call as well.
Heather

---------- Forwarded message ---------
From: **Heather Young** <heather.young@restorethegulf.gov>
Date: Fri, Mar 27, 2020 at 2:23 PM
Subject: update on FPL1 - AL Living Shorelines Monitoring project
To: Helen Chabot - NOAA Federal <Helen.Chabot@noaa.gov>
Cc: John Ettinger <john.ettinger@restorethegulf.gov>, Hunter, Amy <Amy.Hunter@dcnr.alabama.gov>, Swindle, Kelly <Kelly.Swindle@dcnr.alabama.gov>

Helen,

I hope this finds you safe and healthy. I wanted to give you an update on the FPL1 - AL Living Shorelines Monitoring project. First, to jog your memory, you provided a signed memo dated Nov. 19, 2018 (which I've attached) which advised the Council that use of NOAA's NEPA Categorical Exclusion E5 would be appropriate for the Alabama Comprehensive Living Shorelines
Monitoring Program. Since that time, it has taken a long time and a lot of back and forth coordination to get through NMFS's ESA consultation process, but we finally received concurrence with our ESA determination (final version attached). This ESA concurrence from NMFS is documented in a letter signed by Kelly Shots dated March 25, 2020 (also attached).

I will be working with Amy Hunter and Kelly Swindle of AL DCNR to bring this matter to the attention of the RESTORE Steering Committee in the near future so we can request their concurrence on moving toward publication of a public notice concerning a potential FPL1 amendment to move the implementation component of the AL Living Shorelines Monitoring project from Category 2 to Category 1. Prior to doing so, I wanted to touch base with you and provide this update. Please let me know if you have any comments or concerns. I look forward to working with you and the rest of the Council members as we consider this action.

Have a nice weekend,
Heather

--

Heather D. Young

Ecosystem Restoration Specialist
Gulf Coast Ecosystem Restoration Council
tel. 504-252-7716
www.restorethegulf.gov

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Rusty Swafford
Supervisor, Gulf of Mexico Branch
Southeast Region, Habitat Conservation Division
NOAA Fisheries
U.S. Department of Commerce
4700 Av U, Galveston, TX 77551
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Rusty.Swafford@noaa.gov

50 Years of Science, Service, and Stewardship

--

January Murray
Fishery Biologist
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NOAA FISHERIES

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Heather D. Young

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