

Categorical Exclusion (CE) Evaluation Worksheet

Project Identifier: EX2301

Date Review Completed: 3/27/2023

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OAR Functional Area: OER

Worksheet File Name: 2023-03-OER-E3-EX2301

Step 1. CE applicability

- 1. Is this federal financial assistance, including via grants, cooperative agreements, loans, loan guarantees, interest subsidies, insurance, food commodities, direct appropriations, and transfers of property in place of money?**

no

- 2. What is the proposed federal action?**

The proposed action is the NOAA's Office of Exploration and Research (OER) to complete a ROV and mapping shakedown expedition using the NOAA Ship Okeanos Explorer focused on exploring deep waters (greater than 250 m for ROV operations and greater than 200 m for mapping operations) in U.S. waters off the West Coast. Operations will be conducted 24 hours per day and consist of remotely operated vehicle (ROV) dives, mapping operations (primarily overnight), and full shore-based participation via telepresence. Expedition operations will include using NOAA Ship Okeanos Explorer's deepwater mapping systems (Kongsberg EM 304 multibeam, EK60/EK80 split-beam sonars, Knudsen 3260 Chirp sub-bottom profiler, and Teledyne acoustic Doppler current profiler), expendable bathythermograph (XBTs) in support of multibeam sonar mapping operations, conductivity, temperature, depth profiler (CTD) casts, OER's two-body ROV system (Deep Discoverer and Seirios), and high-bandwidth satellite connection for continuous ship-to-shore communications. Mapping and shakedown objectives include but are not limited to: confirm the functionality and integration of all acoustic equipment and ancillary systems, conduct reference surveys, conduct EK split-beam sonar calibrations, execute mapping line plans as defined onboard personnel, verify Global

Foundation for Ocean Exploration (GFOE) managed telepresence systems, and testing the CTD in multiple water depths.

The EX2301 2023 Shakedown and EXPRESS West Coast Mapping will commence on April 3, 2023 in Portland, Oregon, and will conclude in Seattle, Washington on April 27, 2023. The exact start and end dates may vary by a few days or weeks depending on weather and other logistical considerations. EX2301 will focus operations in U.S. waters off the U.S. West Coast with the focus on ROV and mapping properties within the U.S. EEZ in deep waters greater than 200 m. Mapping and ROV shakedown operations will be conducted at depths between 250 and 6,000 m. The actions during this expedition demonstrate independent utility and they are not connected to any other federal actions.

3. Which class of CE in Appendix E of the NAO 216-6A Companion Manual is applicable to this action and why?

- a. E3: Activities to collect aquatic, terrestrial, and atmospheric data in a non-destructive manner.
- b. The topical scope for this action is consistent with the CE number E3 in Appendix E of the Companion Manual to NOAA Administrative Order (NAO) 216-6A: to collect aquatic, terrestrial, and atmospheric data in a non-destructive manner. The expedition will use remote sensing, video, images, and a limited number of physical samples to collect baseline information on unexplored deep-water (>250m) areas off the U.S. waters off the West Coast. The use of conductivity, temperature, and depth instruments or a moving vessel profiler from a platform, including the use of drop cameras during this expedition will occur. During EX2301, operations deployment, operation, and retrieval of a limited number of ROVs, ASVs, AUVs, buoys, moorings, or similar instrumentation to conduct non-destructive sampling and collection of data from those instruments once installed, including physical, chemical, and biological measurements, and visual data will take place during the expedition. The limited number of biological and geological samples collected will follow OER's Best Management Practices and procedures to ensure the wellbeing and protection of organisms in and near the areas of operations.

Additionally, EX2301 will conduct calibrations of sonars which will involve no permanent physical, chemical, or biological changes to the environment in areas deeper than 200 meters in depth. This expedition will perform mapping survey operations to collect critical baseline information to support priority NOAA science and management needs to ensure that the platform is ready for the 2023 field season.

Step 2. Extraordinary Circumstances Consideration

4. Would the action result in adverse effects on human health or safety that are not negligible?

The actions of the NOAA Ship Okeanos Explorer will take place in remote deep-sea (>200m) areas located off shore of the U.S. West Coast with a focus on waters within the U.S EEZ. All operations are underwater and will have no human presence in the area besides those on onboard the EX2301. The vessel will transit through different depths as it moves from the ports of call to the areas of operations in deeper waters. These actions do not involve any procedures or outcomes known to result in impacts on human health and safety.

5. Would the action result in adverse effects on an area with unique environmental characteristics that are not negligible?

While the Okeanos Explorer is operating within the U.S. EEZ where majority of operations would take place, the effects will be negligible as acoustic mapping and ROV operations are considered transient and would not cause any permanent impact on the seabed or within the water column. The procedures that are employed when operating acoustic systems impacts are well-documented and would follow the accepted best management practices for all operations onboard the vessel to ensure that the level of impact is below minor to the point of being barely detectable. Expedition operations are planned and reviewed before any actions are taken in order to determine whether there would be the potential for adverse effects on the area.

6. Would the action result in adverse effects on species or habitats protected by the ESA, MMPA, MSA, NMSA, or MBTA that are not negligible?

The activities are not likely to have a negative effect on species or habitats protected by the ESA, MMPA, MSA, NMSA, or MBTA. According to NOAA Fisheries, there are 22 ESA endangered and threatened species found along the U.S. West Coast. The Okeanos Explorer operations will abide by the Best Management Practices and Mitigation Measures developed in collaboration with the various regulatory and federal agencies to ensure that operations in the these sectors would not result in any activities having adverse effects on the species or habitats protected under ESA, MMPA, MSA, NMSA, or MBTA.

7. Would the action result in 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?

The expedition operations will be in the compliance with FEC 07 Hazardous Materials and Hazardous Waste Management Requirements for Visiting Scientific Parties (or the OMAO

procedure that supersedes it) to ensure generation, use, storage, transport, and disposal of such substances will not result in significant impacts.

8. Would the action result in 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?

The proposed action will not result in adverse or indirect effects that cannot be resolved through applicable regulatory processes since we will not be operating within listed or eligible properties, lands, resources or sites coming under the umbrella of protection referenced above.

9. Would the action result in 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)?

The NOAA Ship Okeanos Explorer will be operating in the remote and offshore areas along the U.S. West Coast region as the EX transits between the calibration areas and dive targets during EX2301. There are no communities within or near the geographic scope of the expedition due to activities operating in areas greater than 200 meters. The expedition does not involve actions known or likely to result in adverse impacts on health or the environment of minority or low income communities.

10. Would the action contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of the species?

During EX2301, NOAA Ship Okeanos Explorer will not make landfall in areas other than commercial ports in Portland, Oregon and Seattle, Washington. The ship and OER mission team will comply with all applicable local and federal regulations regarding the prevention or spread of invasive species. At the completion of every CTD cast, the equipment will be thoroughly rinsed with fresh water and completely dried to prevent spreading organisms from one site to another. Also the Engineering Department aboard the NOAA Ship Okeanos Explorer attends yearly Ballast

Management Training in accordance with NOAA Form 57-07-13 NPDES VGP Annual Inspection and Report to prevent the introduction of invasive species.

11. Would the action result in a potential violation of Federal, State, or local law or requirements imposed for protection of the environment?

OER has taken measures to ensure that any effects on species or habitats protected by the ESA, MMPA, MSA or NMSA meet the definition of negligible. The proposed actions will not result in any Federal, State, or local law violations or requirements imposed for protection of the environment. OER received a ESA Programmatic Letter of Concurrence and Project Design Criteria letter dated March 14, 2022 from the NMFS ESA Interagency Cooperation Division for ESA Section 7 that concurs with OER's determination that the proposed action may affect, but is not likely to adversely affect ESA-listed species and their designated or proposed critical habitat in the action areas. The ESA Programmatic Letter of Concurrence and its Project Design Criteria will be provided in the EX2301 expedition report.

Given the offshore focus of most of our proposed work, it was determined that it is not likely that we will encounter marine mammals protected under the MMPA, or sea birds protected under the MBTA as they are often found in territorial and state waters. If we did encounter any such protected animals, our impacts would be negligible because of the best management practices that were developed with relevant agencies that we adhere to avoid or minimize environmental impacts. These best management practices and project designed criteria are outlined in the FY23 Field Season Instructions.

OER requested a Essential Fish Habitat (EFH) consolation under section 304 of the Magnuson-Stevens Fishery Conservation and Management Act for expeditions conducted by the NOAA Ship Okeanos Explorer during its 2023 field season in the North Pacific Ocean, Eastern Pacific Ocean, Central Pacific Ocean, and Alaska. The EFH Letter of Acknowledgement was received on August 3, 2022 from the Assistant Regional Administrator for the NOAA Office of Habitat Conservation stating that the FY23 expeditions will not adversely impact EFH. This letter will additionally be included in the EX2301 expedition report. A permit request was submitted to the National Marine Sanctuaries for FY23 operations by the NOAA Ship Okeanos Explorer to conduct activities within the sanctuaries found along the U.S. West coast. The request included to conduct ROV, mapping, and AUV operations within the Sanctuaries for FY23. Permission was obtained on March 21, 2023 to conduct operations within the Sanctuaries.

12. Would the action result in highly controversial environmental effects?

No, the exploration activities are small and considered minimal following the best available information about effects of the equipment to support determination that activities would be localized and be short in duration in any particular area at any given time with no notable or lasting changes to the environment. Given the project's scope and breath, no notable or lasting changes or highly controversial effects to the environment by mapping operations conducted onboard the Okeanos Explorer. Any effects would be small and considered minimal as the vessel transits through the area of interest continuously using acoustic sound sources which have been analyzed to determine the effects that may occur during operations.

13. Does the action have 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?

The decision to take this action will not result in growth-inducing changes, compel future actions with potential impacts, or foreclose options for future actions. Each expedition is independently useful and is not connected to subsequent federal actions.

14. Would the action result in environmental effects that are uncertain, unique, or unknown?

The techniques and equipment used are standard for this type of field study, and the effects are well known and assessed to determine whether the actions may result in environmental effects that are uncertain, unique, or unknown.

15. Does the action have 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 techniques and equipment used are standard for this type of field study, and the effects are well known and assessed to determine whether the actions may result in environmental effects that are uncertain, unique, or unknown.

CE Determination

I have determined that a Categorical Exclusion is the appropriate level of NEPA analysis for this action and that no extraordinary circumstances exist that would require preparation of an environmental assessment or environmental impact statement.

I have determined that an environmental assessment or environmental impact statement is required for this action.

OAR Decision Maker's Name: David Turner

OAR Decision Maker's Position/Title: Acting Deputy Director of NOAA Ocean Exploration & Research

Date Signed: March 28, 2023

David Turner