

DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

Ancient Landforms off the Washington Coast

1. PURPOSE

The passage of the 2005 Energy Policy Act has increased interest in renewable energy development on the Pacific Outer Continental Shelf (OCS), and BOEM has received applications for both offshore wind and offshore wave projects. To better understand the potential impacts that BOEM-approved actions may have on submerged cultural landforms, a science-based analysis of these resources, in addition to the involvement of Tribal communities, is necessary. The purpose of this study is to refine the regional model of submerged cultural landforms off the State of Washington by collecting baseline remote-sensing data and to incorporate traditional Tribal knowledge to develop appropriate information-gathering protocols and survey measures to avoid or mitigate adverse effects to National Register (eligible or listed) Native American sites. This study will also build on the results of similar research that was recently completed offshore southern California and central Oregon (BOEM, 2021).

2. BACKGROUND

BOEM, an agency of the U.S. Department of the Interior, is charged with the responsibility of considering the effects of its approved actions on cultural resources that are listed or eligible for listing on the National Register of Historic Places (NRHP). The most pertinent of these laws are the National Historic Preservation Act (NHPA) of 1966 (as amended), the National Environmental Policy Act (NEPA) of 1969 (as amended), and the Outer Continental Shelf Lands Act (OCSLA) of 1978. Currently, BOEM requires avoidance or mitigation of areas identified through remote-sensing data as being potentially associated with submerged cultural landform features. While remote-sensing surveys, though limited, have been conducted offshore California and Oregon to assess the presence of submerged cultural landforms, no associated surveying or seafloor modeling work have been conducted off the State of Washington. The lack of a robust scientifically-proven and standardized, “best practices” methodology for identifying submerged ancient cultural landforms along the contiguous United States (US) Pacific OCS, and the Tribal archaeological resources these landforms may potentially contain, has long been a concern among Federal, State, and Tribal historic preservation officers. Through consultation with the Quinault Indian Nation and other Washington Tribes, as appropriate, this study will identify appropriate methods for incorporating traditional knowledge and oral histories into the identification of high-probability areas for containing submerged cultural landscapes. Remote-sensing surveys will then be conducted to produce high-resolution maps of these areas, and discovered topographic features will be incorporated into regional landscape models highlighting the preservation potential of submerged ancient cultural landforms and associated archaeological resources, as appropriate.

3. OBJECTIVES

The overall goal of this cooperative agreement is to acquire information that will enable BOEM to assist the States of Washington, Oregon, and California; west coast Tribal Nations; and public stakeholders with contributing information to further refine current models for the preservation potential of submerged ancient cultural landscapes along the US Pacific OCS. The specific objectives that will enable BOEM to accomplish this goal during this study are:

- 1) to develop a pro-active, best practices approach for consulting with the Quinault Indian Nation and other appropriate Washington Tribes in order to inform the identification of submerged landforms, submerged traditional cultural properties, and associated areas of significance that BOEM may need to consider during future offshore renewable energy development;
- 2) to incorporate indigenous knowledge with remote-sensing and bathymetry data collected from these areas into a model depicting the preservation potential of submerged ancient cultural landforms and associated archaeological resources, as appropriate, offshore Washington and the US Pacific coast in general.

4. STATEMENT OF WORK

Information acquired from this project will assist BOEM under its historic preservation mandates with identifying and preserving cultural heritage sites and traditional cultural properties along the western coast of the US. A three (3)-year project proposal shall be developed to address the objectives listed above and the tasks listed below. BOEM estimates a maximum of \$550,000 will be available for this project. This amount includes preparing a research design; logistics, communications, administration, and project management; obtaining any necessary permits or approvals; scheduling, conducting, and managing Tribal consultation meetings; research cruise planning, mobilization, performance, and demobilization; and report writing, all of which are the responsibility of the Recipient.

5. TASKS

- 1) Develop a methodology for engaging and consulting with the Quinault Indian Nation and other appropriate Washington Tribes with ancestral and cultural ties to the Pacific coastal region.
- 2) Schedule and host a workshop(s) with appropriate Tribes to discuss and compile traditional knowledge and oral histories regarding coastal landscape use and to identify areas now submerged offshore the State of Washington that may contain cultural properties that could be impacted by BOEM-approved activities associated with offshore renewable energy development.

- 3) Complete a remote-sensing research and mapping cruise along certain offshore areas identified as potentially containing intact submerged landforms, such as inundated paleoshorelines and estuaries. At minimum, the research cruise will include the use of a multibeam sonar, a side-scan sonar, and sub-bottom profiler. At a minimum, the Recipient will follow BOEM's recommended archaeological survey guidelines.
- 4) Utilize data collected during the remote-sensing research and mapping cruise to produce a model of submerged cultural landforms off Washington and explain how this information may inform the interpretation of similar landforms along the US Pacific coast.
- 5) Prepare a final report of summarized findings that respectfully incorporates indigenous knowledge with details of all previous tasks and provides a context of the preservation potential for submerged cultural landscapes off Washington and the US Pacific Coast, in addition to highlighting best practices for consulting with the Quinault Indian Nation and other Washington Tribes.

6. SCIENTIFIC INTEGRITY POLICY

Scientific integrity is vital to Department of the Interior (DOI) activities under which scientific research, data, summaries, syntheses, interpretations, presentations, and/or publications are developed and used. Failure to uphold the highest degree of scientific integrity will result not only in potentially flawed scientific results, interpretations, and applications, but will damage DOI's reputation and ability to uphold the public's trust. All work performed must comply with the DOI Scientific Integrity Policy posted at <https://www.doi.gov/scientificintegrity> or its equivalent as provided by their organization or State law.

7. DESCRIPTION OF MEETINGS, REPORTS, AND OTHER DELIVERABLES

All deliverables shall be submitted and meetings held in accordance with the schedules specified below in Section 8. The Recipient is responsible for editing and proofreading all material in order to prepare error-free products prior to their delivery to BOEM. Materials submitted to BOEM with errors will not be accepted and will be returned as unsuitable. All deliverables should be submitted in electronic (.pdf and Microsoft Word .docx) versions unless indicated otherwise in the following descriptions.

Post-Award Meeting and Summary: The Recipient shall hold a Post-Award Meeting with BOEM in the BOEM Pacific Office in Camarillo, CA (or at a mutually-agreeable location or through a virtual meeting or by phone) no later than fourteen (14) calendar days after award at a time and day that is mutually-agreeable to BOEM and the Recipient. Additionally, the Recipient shall submit a Meeting Agenda no later than seven (7) calendar days prior to the meeting to allow for review by all involved. Finally, the Recipient shall prepare and submit a draft Meeting Summary including action items such as suggested changes, modifications, and other items of discussions, along with suggested actions or remedies within seven (7) calendar days of adjourning the meeting. BOEM will review the draft Meeting Summary and provide

feedback to the Recipient within seven (7) calendar days, which the Recipient will then incorporate into the final Meeting Summary. Any changes that might affect the Agreement are subject to approval in writing by the Bureau of Safety and Environmental Enforcement (BSEE) Contracting Officer (CO). The Recipient will submit the final Meeting Summary within fourteen (14) calendar days of receiving BOEM's comments.

Project Management Plan: The Recipient shall prepare and submit a Project Management Plan, indicating how the project tasking will be accomplished, by whom it will be accomplished, and identifying a schedule of milestones for completion, within seven (7) calendar days after adjourning the Post-Award meeting. The Project Management Plan also should indicate how any deviation from the performance schedule may be remedied by the Recipients. The Project Management Plan shall also include a Data Management Plan (DMP) that includes procedures to handle all collected field data, quality assurance/quality control (QA/QC) procedures, dissemination and distribution protocols, protocols for collecting and maintaining sensitive information, and archival procedures. BOEM will review the Project Management Plan and provide feedback to the Recipient within one (7) calendar days, which the Recipient shall incorporate into the final Project Management Plan. The Recipient shall submit the final Project Management Plan within fourteen (14) calendar days of receiving BOEM's comments. In other words, the draft versions of the Post-Award Meeting Summary and the Project Management Plan shall be submitted to BOEM simultaneously and the final versions of these also shall be submitted to BOEM simultaneously.

Quarterly Progress Reports: The Recipient shall prepare and submit progress reports every three (3) months after the award date. The Quarterly Progress Reports shall include a summary of all work performed during the preceding three (3) months, including a list of all meetings held, research conducted, fieldwork and analyses conducted, deliverables submitted, and overall progress made against the schedule. The Progress Reports also should include any deviations from the performance schedule or encountered issues along with remedies for resolving these situations.

Annual Progress Reports: The Recipient shall prepare and submit an annual report every twelve (12) months following the award date that will include the major accomplishments of the past year, including a list of all publications related to the award, and the activities planned for the upcoming year (this is excluded for the last year of the performance period). Any changes in the work plan shall be discussed with the BOEM project officer (PO) and BSEE CO to obtain written approval prior to performing the work. This report may be combined with the concurrent quarterly report.

Draft and Final Consultation and Engagement Plan: The Recipient shall submit a Consultation and Engagement Plan that outlines the proposed strategy to engage and consult with the Quinault Indian Nation and other Washington Tribes, as appropriate, in support of the indigenous knowledge and traditional cultural property preservation objectives of this project. The Plan will identify the number and locations of proposed workshops, discuss proposed outreach efforts to encourage engagement of Tribal representatives, and identify the format and duration of these meetings (which may be one or more, as appropriate). BOEM will have thirty (30) calendar days from the date of receiving an acceptable draft of the Plan to review it and inform the Recipient via email of any required changes, corrections, or additions. In any instance where the Recipient disagrees with the suggested changes, they must email an explanation to the BOEM PO explaining the reason; otherwise the Recipient shall incorporate the suggested

changes in the final Plan. The Final Plan will be reviewed for completeness by the BOEM PO, and a letter of acceptance will be emailed to the Recipient. The Draft and Final Workshop Plans shall be submitted as specified in the below Schedule of Deliverables section.

Consultation and Engagement Workshop(s): The Recipient shall schedule and host a consultation workshop(s) that will include the Recipient, the BOEM PO, and Tribal representatives. The workshop(s) will be structured so that 1) BOEM and the Recipient may properly engage with Tribal representatives prior to the proposal of any fieldwork; 2) Tribal representatives may be involved in the identification of their own significant resources and areas of use; and 3) Tribal interests in specific planning areas for offshore renewable energy may be illuminated.

Cruise Plans and Post-Cruise Reports: The Recipient shall submit a Cruise Plan to BOEM at a mutually-agreed time before a remote-sensing and mapping cruise is undertaken. The Cruise Plan will discuss the research expedition's purpose, planned survey area, and schedule. The involved research vessel, equipment, crew, and science party will also be indicated. No later than two (2) months following cruise demobilization, the Recipient shall prepare and submit a Post-Cruise Report summarizing the survey activities and any preliminary data results.

Field Data: Detailed field notes will be maintained by the Recipient sufficient to ensure the methods and analyses used are clearly documented and methodology used recorded. Copies of the field notes should be submitted separately with the Final Report. Data shall be analyzed by the Recipient's Principle Investigator (PI) and reviewed by the BOEM PO. The Recipient shall submit copies of all data, images, and analyses to BOEM. Given the sensitive nature of some material, the identification of archaeological site locations must remain confidential and therefore withheld from publicly-accessible data sources and the Final Report, which will also be publicly available.

Any shipwreck locations or other underwater cultural heritage discovered during this project are classified as sensitive information and therefore can NOT be publicly indulged with the submitted data. All other appropriate, non-sensitive data shall be submitted to the National Centers for Environmental Information (NCEI) in accordance with NCEI specifications. The Recipient shall confirm accomplishment of the data submission to NCEI by a letter to the PO describing the dates, formats, and documentations of submissions. A statement from NCEI indicating that the data have been accepted for archiving shall be included as an appendix. Information on submission requirements can be found at: <https://www.nodc.noaa.gov/s2n/>.

Georeferenced materials must include appropriate metadata. The metadata records shall conform to the Content Standards for Digital Geospatial Metadata (ISO 19115-1) by the Federal Geographic Data Committee (FGDC) or to any format that supersedes it as determined by the FGDC <http://www.fgdc.gov/metadata/csdgm>. Profiles and extensions to the standard that have been endorsed by the FGDC shall be used if they are applicable to the data or data products. The metadata records shall contain any and all elements, including those that are considered optional, wherever applicable to the data or data product. The metadata record shall contain sufficient detail to ensure the data or data products can be fully understood for future use and for posterity. The metadata records shall be delivered free of errors in both content and format. The metadata and records will be subject to review and approval prior to final acceptance by the Government.

Draft and Final Report: The Recipient shall prepare a Draft Final Report detailing the results of the efforts made under this project. The report shall include a detailed discussion of all tasks, methodologies, techniques, interpretations, analyses, data, and characterizations employed or generated in fulfillment of the project requirements. The report will also provide a discussion of best practices that should be implemented for consulting with the Quinault Indian Nation and other Washington Tribes, as appropriate.

The Recipient will thoroughly edit and proofread the Draft Final Report prior to submittal, and the report shall conform to the specifications found at the BOEM website:

<https://www.boem.gov/environment/environmental-studies/report-specifications/esp-report-and-footprint-specifications>

The Draft Final Report shall be submitted as specified in the below Schedule of Deliverables section. If the draft report requires many changes, corrections, or additions or does not conform to publication style, it may be deemed unacceptable and returned to the Recipient for correction and re-submittal, still as a draft report. Otherwise, BOEM will have thirty (30) calendar days from date of receiving an acceptable draft to review it and inform the Recipient via email of any required changes, corrections, or additions. In any instance where the Recipient disagrees with the suggested changes, they must email an explanation to the BOEM PO explaining the reason; otherwise the Recipient shall incorporate the suggested changes in the Final Report. The Final Report, with accompanying documentation, will be reviewed for completeness by the BOEM PO, and a letter of acceptance will be emailed to the Recipient.

Draft and Final Technical Summary. The Recipient shall prepare a Draft Technical Summary, which will give an overview of the project details.

The Recipient will thoroughly edit and proofread the Draft Technical Summary prior to submittal, and it shall conform to the specifications found at the BOEM website:

<https://www.boem.gov/environment/environmental-studies/report-specifications/esp-report-and-footprint-specifications>

The Draft Technical Summary shall be submitted as specified in the below Schedule of Deliverables section. If the Draft Technical Summary requires many changes, corrections, or additions or does not conform to publication style, it may be deemed unacceptable and returned to the Recipient for correction and re-submittal, still as a draft report. Otherwise, BOEM will have thirty (30) calendar days from date of receiving an acceptable draft to review it and inform the Recipient via email of any required changes, corrections, or additions. In any instance where the Recipient disagrees with the suggested changes, they must email an explanation to the BOEM PO explaining the reason; otherwise the Recipient shall incorporate the suggested changes in the final summary. The Final Technical Summary will be reviewed for completeness by the BOEM PO, and a letter of acceptance will be emailed to the Recipient.

Journal Publications: Any manuscripts produced from this study will summarize major objectives, methods, significant results, conclusions, and implications of the work. If published, reprints shall be provided to BOEM, even after the period of performance has ended. Co-authorship of journal publications by BOEM employees is acceptable if applicable. All manuscripts intended to be published in journals and all abstracts or summaries prepared for presentations, based on this study, must be submitted to BOEM for review and comment prior to

submittal to the journal or conference authority and any comments incorporated to the extent practical. All such publications and oral presentations and draft and final reports shall contain an acknowledgement of support from the BOEM under this award that reads:

Study collaboration and funding were provided by the U.S. Department of the Interior, Bureau of Ocean Energy Management, Environmental Studies Program, Washington, D.C., under Agreement Number ____.

8. DUE DATES AND DISTRIBUTION OF DELIVERABLES

Deliverable		Distribution	Due Date
A.1.	Post-Award Meeting Agenda	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Seven (7) calendar days prior to the Post-Award Meeting
A.2.	Post-Award Meeting Summary (Draft)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Seven (7) calendar days after the Post-Award Meeting
A.3.	Post-Award Meeting Summary (Final)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Fourteen (14) calendar days after receiving BOEM's comments

B.1.	Project Management Plan (Draft)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Seven (7) calendar days after the Post-Award Meeting
B.2.	Project Management Plan (Final)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Fourteen (14) calendar days after receiving BOEM's comments
C.1.	Quarterly Progress Reports	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Due every three (3) months following the award date until the end of the performance period
C.2.	Annual Progress Reports	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Due every twelve (12) months following the award date until the last year of performance; this may be combined with a concurrent quarterly report
D.1.	Consultation Workshop Plan (Draft)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	No later than twelve (12) months after award

D.2.	Consultation Workshop Plan (Final)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Fourteen (14) calendar days after receiving BOEM's comments
E.1.	Cruise Plan(s)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Delivered at mutually-agreed time with the BOEM PO before cruise mobilization takes place
E.2.	Post-Cruise Report(s)	PO: one (1) electronic copy; CO: one (1) electronic copy; ESP Representative: one (1) electronic copy; Chief, DES – one (1) electronic copy	Two (2) months after cruise demobilization
G.	Copies of field data, images, and analyses	PO: one (1) electronic copy; CO: notice of transmittal only; ESP Representative: notice of transmittal only	To be submitted with the Draft Final Report
H.1.	Final Report (Draft)	PO: one (1) electronic copy; CO: notice of transmittal only; ESP Representative: one (1) electronic copy;	Thirty (30) months after award.

H.2.	Technical Summary (Draft)	PO: one (1) electronic copy; CO: notice of transmittal only; ESP Representative: one (1) electronic copy;	Thirty (30) months after award.
H.3.	Final Report	PO: one (1) electronic copy; CO: notice of transmittal only; ESP Representative: one (1) electronic copy;	Thirty-five (35) months after award.
H.4.	Technical Summary (Final)	PO: one (1) electronic copy; CO: notice of transmittal only; ESP Representative: one (1) electronic copy;	Thirty-five (35) months after award.

All activities and deliverables will be complete within thirty-six (36) months of award.

9. ADDRESSES FOR DELIVERABLES

**Chief, Division of Environmental Studies
(DES):**

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Representative:

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References:

BOEM. 2021. Archaeological and Biological Assessment of Submerged Landforms off the Pacific Coast. (NSL #PC-14-04). US Department of the Interior, Bureau of Ocean Energy Management. <https://marinecadastre.gov/epis/#!/search/study/100088>