

## Environmental Studies Program: Studies Development Plan | FY 2024–2025

Field	Study Information
Title	Gulf Coast Community and Cultural Impact Baselines Survey (GM-24-03a)
Administered by	Gulf of Mexico Region
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Procurement Type(s)	Contract
Conducting Organization(s)	TBD
Total BOEM Cost	TBD
Performance Period	FY 2024–2029
Final Report Due	N/A
Date Revised	September 12, 2023
Problem	BOEM needs additional information to more clearly characterize the indirect effects of OCS activities and industries on specific Gulf of Mexico communities to better collaborate with communities and Federal and state agencies in mitigating potential adverse effects. A broad range of baseline data are needed to define EJ communities and to account for community and behavioral change before new operations like renewable energy, green hydrogen and carbon sequestration are deployed in the Gulf of Mexico.
Intervention	Collect baseline datasets along coastal Gulf communities that may be affected by wind, green hydrogen, and/or carbon sequestration activities
Comparison	These datasets will serve as the baseline social factors data for comparison purposes in future NEPA and other BOEM decision documents. Specifically, the baseline data will be used to compare post-activity community change to document how wind, green hydrogen, and/or carbon sequestration programs affect community change (e.g., socio-economic, related infrastructure, air quality and health, demographic).
Outcome	Compliance with documenting and attributing impacts from program activities, including impacts on EJ and Tribal communities.
Context	Port Arthur, Corpus Christi, Holly Beach, Cameron, Lake Charles, Freeport, Texas City, and the Houston Galveston-Brazoria area.

BOEM Information Need(s): BOEM requires more detailed and accurate baseline data and information about local level impacts to coastal communities than what is currently available through datasets typically used by Federal agencies to assess impacts (e.g., census data, EJScreen, etc.). Information gaps exist regarding Gulf Coast communities, which are often rural and vulnerable to land loss, extreme weather events, and other natural and anthropogenic effects that have been occurring for decades. This data need is reinforced by Executive Orders 12898, 13175, 14008, and 14096 which direct Federal agencies to consider and communicate the potential disproportionate effects of their actions on low income, minority, and Indigenous populations. The White House Environmental Justice Executive

Council and the Department of the Interior have indicated that EJ analyses should be expanded, when appropriate, to include such issues as social and economic equity and climate change. Further, BOEM requires this information to comply with the National Ambient Air Quality Standards (NAAQS) in OCSLA under section 5(a)(8); with Section 110 of the National Historic Preservation Act; and to describe social, environmental, and cumulative impacts under the National Environmental Policy Act (NEPA). The baseline data used in the analyses under these various mandates could be improved to make more accurate assessments of effects, especially in NEPA documents.

Because the implementation timelines associated with wind, carbon capture, and green hydrogen are somewhat vague, a flexible contract vehicle is needed to quickly adapt to changing priorities and associated future impacts. Thus, an indefinite delivery/indefinite quantity contract would be best suited to this type of study. The first year of the contract would require approximately \$1,000,000 which would be used to fund critical first-year actions such as air-quality monitoring and initial socio-economic and cultural resource assessments that, when combined with Bureau priorities (e.g. wind, carbon sequestration, etc.), would inform outyear studies and funding. The outcomes and recommendations from the first-year studies would inform subsequent actions, to be submitted as mini-profiles paired with new Task Orders. These subsequent studies would be funded year-by-year based on management determination of need and budget availability, with short periods of performance for each task order.

Background: Renewables, carbon sequestration, and green hydrogen have not been implemented in the Gulf yet; gathering data as early as possible will provide BOEM with a robust baseline dataset that will be used for future comparative purposes. Existing baseline data (e.g., socio-economic, related infrastructure, air quality and health, demographic, etc.) from the Gulf of Mexico have proven of limited direct use for BOEM's actions and even less applicable to novel renewable energy and forthcoming carbon sequestration activities in the Gulf. This is further confounded by the likelihood that offshore renewables will interact with conventional energy and its supporting industries in numerous ways. It will be difficult to get a handle on baselines in the Gulf of Mexico (the nation's primary energy corridor) as compared to other OCS regions. This underscores the importance of committing resources prior to the start of new green-energy development before this burgeoning sector becomes similarly nebulous in impacts, effects, and spread. Since these activities are administration priorities, BOEM needs to strategically allocate substantial study funds now to be ready for major actions across the region.

There are several coastal communities adjacent to the call areas and/or adjacent to port and support facilities that utilize the coastal resources for subsistence, employment, and traditional practices and value its cultural aesthetic. Initial areas of focus identified include Port Arthur, Corpus Christi, Holly Beach, Cameron, Lake Charles, Freeport, Galveston, Texas City, and southern Houston. Also, the Houston Galveston-Brazoria area is in nonattainment status for the 8-hr ozone (O<sub>3</sub>) NAAQS. This is a substantial geographic area for data collection, and this is reflected in the associated study costs. These baseline and monitoring datasets would be the first of their kind and could prove instrumental in identifying the effects of development and, subsequently, directly inform novel mitigation actions that would bolster development efforts across the nationwide Outer Continental Shelf (OCS).

Objectives: The objective of this study is to produce baseline datasets that would inform and enhance our cumulative impacts and social factors sections of forthcoming NEPA work and engagement efforts. This study does not analyze a specific action, but rather provides the necessary baselines to compare the effects of future agency actions to measure change.

Methods:

1. Embed ethnographers and social scientists directly into the communities most likely to be impacted by foreseeable OCS wind development to capture baseline conditions and cumulative impacts through the lived experiences and dispositions of community members using participant observation and unstructured discussions. Then, using a citizen-science approach, empower community members to present their needs and observed impacts first-hand to better reach decision-makers in an effective manner; and/or
2. Use this boots-on-the-ground ethnographic perspective to ground truth and augment desktop analyses of potential EJ communities in the affected environment of these OCS wind developments. Such a perspective could also greatly facilitate outreach and engagement with EJ communities, by identifying key points of concern to EJ communities (laying the foundation to explore mitigation methods), key contacts, and establishing a shared sense of understanding borne from direct ethnographic research; and/or
3. Establish a baseline assessment to document changes and impacts to critical transportation and infrastructure to the communities. For example: will wind development projects place an unforeseen burden on local road systems; and/or
4. Conduct air monitoring to assess effects from increase coastal usage from construction crews, port activity, increases in vessel traffic, and any modifications to fishing practices using an existing BOEM mobile air quality monitoring station; and/or
5. Inventory cultural and historic resources that will likely be adversely affected by viewshed alteration; and/or
6. Conduct a financial impacts analysis of coastal property valuation pre-and post-wind tower installation; and/or
7. In coordination with U.S. Army Corps of Engineers Civil Works Program, States and Local communities, document how BOEM Gulf of Mexico Region can leverage its various programs, including Marine Minerals, to harden shorelines and reduce or eliminate impacts to threatened coastal communities; and/or
8. Develop customized outreach and engagement plans utilizing these proposed baseline assessments to streamline and assist with meeting President Biden's target of 30 Gigawatts from offshore wind by 2030.

Specific Research Question(s):

1. What are the baselines that need to be collected to measure community impact from an agency activity?
2. What are the various community concerns and are they temporary or long-term?
3. What are the effects of renewable and Carbon Capture and Storage development on communities?
4. What are the most effective definitions of "EJ communities" to use in relation to the Gulf call areas for renewable energy and how do we define those areas in future program activities?
5. More questions will be developed following receipt of initial findings for each Task Order.

Current Status: N/A

Publications Completed: N/A

Affiliated WWW Sites: N/A

References: N/A