

CESWG-PE-RE  
Application: SWG-2010-00264

## MEMORANDUM FOR THE RECORD

**SUBJECT:** Department of the Army Environmental Assessment and Statement of Findings for the Above – Numbered Permit Application

This document constitutes the Environmental Assessment, Public Interest Review, and Statement of Findings for the subject application.

1. Applicant:

Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, Texas 78744

LATITUDE & LONGITUDE (NAD 83):  
Latitude: 28.7925 North; Longitude: -95.3475 West

2. Corps Authority. The U.S. Army Corps of Engineers, Galveston District (Corps) will evaluate the proposed activity under Section 10 of the Rivers and Harbors Act of 1899.

3. Project and Site Description. The applicant proposes to expand the currently permitted George Vancouver Liberty Ship Artificial Reef. The current reef is 40 acres in size and encompasses the Liberty Ship. The expansion would increase the reef size to 160 acres for deployment of additional reef material. Concrete culverts, obsolete oil and gas production structures, obsolete or surplus vessels and other materials will be placed in within the confines of a designated 2,640-ft by 2,640-ft area. The proposed expansion site is greater than 7 nautical miles from any safety fairway and will have a minimum 33 foot clearance over structures. Additionally, the site is not near any natural hard bottom areas. The reef will be, at a minimum, 1000 feet away from any active pipelines. The project is located in the Gulf of Mexico, at Brazos 336 OCS Block, in Brazoria County, Texas. The USGS Quad reference map is: Galveston, Texas.

4. Purpose and Need.

Applicant's Stated Purpose and Need: The purpose of the proposed project is to create artificial reefs in the Gulf of Mexico to augment natural fisheries habitat for juvenile reef fish and for the benefit of the public.

Basic Project Purpose and Water Dependency Determination: The proposed artificial reef creation is water dependent since the activity must occur in navigable waters.

5. Existing Conditions. The project site is located in the Gulf of Mexico. The day-to-day upland activities, located outside the project site, have occurred many decades prior to the

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proposed work, and ongoing operations are completely independent of the proposed work occurring within a water of the U.S. Water depth in this area is approximately 55 feet deep and will have at least 33 feet of clearance over the reef.

6. Scope of Analysis.

a. NEPA: The determination of what is the appropriate Scope of Analysis governing the Corps' permit review and decision is guided by the Corps' National Environmental Policy Act (NEPA) regulations for the regulatory program: 33 CFR Part 325, Appendix B. The Scope of Analysis should be limited to the specific activity requiring a Department of the Army (DA) permit and any additional portions of the entire project over which there is sufficient Federal control and responsibility to warrant NEPA review. Appendix B states that factors to consider in determining whether sufficient "control and responsibility" exist include: 1) whether or not the regulated activity comprises "merely a link" in a corridor type project; 2) whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity; 3) the extent to which the entire project will be within Corps jurisdiction; and 4) the extent of cumulative Federal control and responsibility. Generally, the Corps' area of responsibility includes all waters of the U.S. as well as any additional areas of non-jurisdictional waters or uplands where the district determines there is adequate Federal control and responsibility to justify including those areas within the Corps' NEPA scope of analysis. This normally includes upland areas in the immediate vicinity of the waters of the U.S. where the regulated activity occurs (Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program – July 2009).

(1) Factors.

(i) With regard to the first factor that must be considered in the determination of sufficient Federal control and responsibility, the regulated activities associated with this artificial reef creation proposal do not comprise a link in a corridor type of project.

(ii) With regard to the second factor, the upland areas occurring in the immediate vicinity of the regulated activities do not affect the location and configuration of the regulated activities. Therefore, this project does not meet the second factor.

(iii) With regard to the third factor, the extent to which the entire project will be within the Corps jurisdiction, the entire project is located within waters of the U.S. Thus the entire project is within the Corps jurisdiction. Therefore, this project does meet the third factor.

(iv) With regard to the fourth factor that must be considered in the determination of sufficient Federal control and responsibility, during our consideration of the extent of cumulative Federal control and responsibility for this project, we appropriately relied on and fully

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considered, information and reports from Federal agencies pursuant to their responsibilities under the Fish and Wildlife Coordination Act, the Endangered Species Act (ESA), and Essential Fish Habitat (EFH) regulations (National Marine Fisheries Service – NMFS). ESA threatened or endangered species consultation with the FWS was not required for this permit action; EFH consultation was successfully completed with the NMFS. Our staff archeologist reviewed the project site and determined that there are properties listed in the National Register of Historic Places for the permit area. A cultural resources investigation determined that there are sites that may be eligible for inclusion and further surveys were required. No further coordination was required pursuant to our responsibilities under 33 CFR Part 325, Appendix C.

(2) Determined Scope. In conclusion, based on our examination of NEPA (33 CFR Part 325, Appendix B) and applicable program guidance (e.g. CEQ’s Considering Cumulative Effects Under the National Environmental Policy Act and the Standard Operating Procedures for the U.S. Army Corps of Engineers Regulatory Program – July 2009), we have determined that the appropriate scope for this project is only within the footprint of the regulated activity within the delineated water.

b. National Historic Properties Act (NHPA) “Permit Area”. The determination of what is the appropriate Scope of Analysis governing the Corps’ permit review and decision is guided by the Corps’ NHPA regulations for the regulatory program: 33 CFR Part 325, Appendix C.

(1) Tests. The proposed activity would not occur but for the authorization of the work or structures within the waters of the United States; such activity is integrally related to the work or structures to be authorized within waters of the United States (or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program); and such activity is directly associated (first order impact) with the work or structures to be authorized.

(2) Determined Scope. We have determined that the appropriate scope for this project is only within the footprint of the regulated activity within the delineated water.

c. Endangered Species Act (ESA) “Action Area.” The determination of what is the appropriate Scope of Analysis governing the Corps’ permit review and decision is guided by the Endangered Species Act of 1973.

(1) Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

(2) Determined Scope. We have determined that the appropriate ESA action area for this project is the project site within the delineated water.

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7. Environmental Assessment.

a. Alternatives. The proposed artificial reef creation is water dependant, and there are no unresolved conflicts concerning alternatives.

b. Environmental Setting. The project site is within the Artificial Reef Site Brazoria County (BA) BA-336 in the Gulf of Mexico OCS.

c. Environmental Impacts. The possible consequences of this proposed work were studied for environmental concerns, social well-being, and the public interest, in accordance with regulations published in 33 C.F.R. 320-332. All factors, which may be relevant to the proposal, must be considered. The following factors were determined to be particularly relevant to this application and were evaluated appropriately, as they relate to the least environmentally damaging practicable alternative described in the alternative analysis section.

(1) Historic and Cultural Resources. The National Register of Historic Places has been consulted and one property was listed in the permit area. The permit area has been investigated for Historic Properties as documented in the report titled “Marine Remote-Sensing Survey for Archeological Assessment of the Vancouver Artificial Reef Expansion, Gulf of Mexico, Brazoria County, Texas”, dated 18 January 2012, and prepared by Atkins North America, Inc.. A historic resource was found and identified within the permit area as a result of the investigation and will be avoided.

(2) Water Quality. Temporary turbidity is probable during construction operations, resulting in minimal damage to fish and wildlife habitat and other biota. No lasting water pollution will occur.

(3) Endangered Species. The proposed project will have **No Effect** because no species exist within the project area.

(4) Fish and Wildlife Values. The placement of artificial reef material such as, concrete culverts, obsolete oil and gas production structures, obsolete or surplus vessels and other materials will create a hard substrate to benefit the fisheries. This will result in the augmentation of natural fisheries habitat for juvenile reef fish and public benefit.

(5) Essential Fish Habitat (EFH). No known negative impacts will occur to EFH as listed under the Magnuson-Stevens Fishery Conservation and Management Act. The creation of an artificial reef will provide a positive benefit to EFH by augmenting the natural fisheries habitat for juvenile reef fish.

(6) Wetlands/Special Aquatic Sites. The proposed project will create an artificial reef site, which will provide a benefit for juvenile fisheries habitat and provide a benefit to the public.

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(7) Navigation. Navigation occurring in the area will not be adversely affected by this project since the structures will have a minimum 33- foot clearance.

(8) Federal Projects. The project will not adversely impact any Federal Project.

(9) Safety. The vessel traffic generated from the creation and placement of the artificial reef would not adversely affect the safety within the project area. All appropriate safeguards will be met, such as vessels being equipped with proper safety equipment in accordance with state and federal guidelines, as well as accepted industry standards, and will operate in accordance with the local, state and federal guidelines.

(10) Economics. This project will positively impact the economics of the State of Texas. The creation of the artificial reef will provide a positive benefit to the fisheries by the augmentation of natural fisheries for juvenile reef fish, which will also provide a benefit by increasing recreational fishing.

(11) Air Pollution. Brazoria County is considered a severe non-attainment. The exhaust from vessel engines used in the transportation of the reef materials would be released. This exhaust should not significantly raise the amount of criteria pollutants commonly released by other vessels in the area are clearly *de minimis*.

(12) Other Federal, State, or Local Requirements. All required Federal, State, and/or local authorization or certifications necessary to complete processing of this application have been obtained. No water quality certification is required.

(13) Other Factors Considered. The following factors were considered during the evaluation process but were determined to not be particularly relevant to this application: shoreline erosion and accretion, recreation, aesthetics, land use, conservation, floodplain values, energy needs, food and fiber production, and mineral needs.

d. Cumulative & Secondary Impacts. An assessment of cumulative impacts takes into consideration the consequences that past, present, and reasonably foreseeable future projects had, have, or will have on an ecosystem. Every permit application must be considered on its own merits. Its impacts on the environment must be assessed in light of historical permitting activity, along with anticipated future activities in the area. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large number of such projects could cause a significant impairment of water resources and interfere with the productivity and water quality of existing aquatic ecosystems.

Cumulative impacts can result from many different activities including the addition of materials

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to the environment from multiple sources, repeated removal of materials or organisms from the environment, and repeated environmental changes over large areas and long periods. More complicated cumulative effects occur when stresses of different types combine to produce a single effect or suite of effects. Large, contiguous habitats can be fragmented, making it difficult for organisms to locate and maintain populations between disjunctive habitat fragments. Cumulative impacts may also occur when the timings of perturbations are so close in space that their effects overlap.

Positive impacts, in the form of artificial reef creation, will be felt in Texas state waters in the Gulf of Mexico, approximately 9 nautical miles off the Gulf Coast. The positive impacts expected from the creation of an artificial reef include the use of concrete culverts, obsolete oil and gas production structures, obsolete or surplus vessels and other approved artificial reef material to create fisheries habitat for juvenile reef fish and proves to be a benefit to the public as well.

A data base search of a 5-mile radius around this artificial reef site included pipelines, and additional artificial reef creation.

Future conditions within the study area are expected to be the creation of additional artificial reefs, pipelines and the addition of structures, such as oil rigs to be used in connection with the production of oil, gas and mineral production.

The creation of this artificial reef site will collectively add to the past, present and other foreseeable activities in the area by increasing the reef area. A larger site will also provide more structures to allow for the augmentation of natural fisheries habitat for juvenile reef fish, which will also increase recreational fishing in the area.

When considering the overall impacts that will result from this project, in relation to the overall impacts from similar past, present, and reasonably foreseeable future projects, their cumulative impacts are not considered to be significantly adverse since the project involves the creation of artificial reefs to create habitat for juvenile fish. Overall, the project will result in minimal environmental impacts and minimal impacts on fish and wildlife values.

#### 8. General Evaluation Criteria Under the Public Interest Review

a. The relative extent of the public and private need for the proposed work: The expansion of artificial reef site BA-336 will provide ecological benefits in the Gulf of Mexico such as habitat for juvenile reef fish and public benefit.

b. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work: There are no unresolved conflicts regarding

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resource use.

c. The extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public and private uses which the area is suited: Detrimental impacts are expected to be minimal since the activity involves the expansion of an artificial reef site that would allow the deployment of additional reef building material. The artificial reef creation will benefit the Texas state fisheries by providing an augmented natural habitat for juvenile fish, which in turn will increase recreational fisheries.

9. Coordination and Resolution of Comments.

a. Corps Internal Review Concerns. The proposed action was coordinated with Corps offices by Internal Review notice dated 17 May 2010. The Programs and Project Management(PPM) Division, Northern Area Office (NAO) Engineer, Real Estate (RE) Division, Operations Division-Navigation Branch (OD-N) and Engineering Division (ED) Offices had no objection to the proposed work.

The Archaeologist from the Planning and Environmental Branch responded on 17 May 2010 stating that a marine survey is needed for the area of expansion.

b. Public Notice Coordination. The formal evaluation process began with the publication of a 30-day public notice on 09 June 2010. The comment period for the public notice closed on 12 July 2010. Copies of the public notice were forwarded to concerned Federal, State, and local agencies, organized groups, individuals and navigation districts. These entities included but are not limited to the following:

U.S. Fish and Wildlife Service (FWS)  
National Marine Fisheries Service (NMFS)  
Environmental Protection Agency (EPA)  
U.S. Coast Guard (USCG)  
Texas Commission on Environmental Quality (TCEQ)  
Texas Parks and Wildlife Department (TPWD)  
Texas Historical Commission (THC)  
Texas Coastal Coordination Council (CCC)  
General Land Office (GLO)  
National Ocean Survey, Atlantic Marine Center (NOS)  
Galveston Bay Foundation (GBF)  
American Waterways Operators (AWO)  
Adjacent Property Owners

c. Response to the Public Notice.

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(1) Federal Agencies. The FWS responded by electronic mail/letter, dated 12 July 2010, stating that their agency can take no action on this permit at this time.

No response was received from the EPA or NMFS.

(2) Federally Recognized Native American Tribes and Affiliated Groups. The Mikko Oscola Clayton Sylestine and the Alabama Coushatta Tribe of Texas responded by letter, dated 14 July 2010, stating that no known impacts to religious, cultural, or historical assets of the ACTT is anticipated in conjunction with this proposal. In the event of an inadvertent discovery of human remains and/or archeological artifacts, activity in proximity to the location must cease and appropriate authorities should be notified without delay.

(3) State and Local Agencies. The Coastal Coordination Council submitted a letter on 01 May 2012 stating that the project is consistent with the Coastal Management Program goals and policies.

The Texas State Historic Preservation Officer responded by letter, dated 25 January 2010, stating that a marine survey would be required.

No response was received from TPWD.

No water quality certification is required.

(4) Individual and Organized Groups. No response was received from any individual or organized group.

d. Applicant's Response to Comments. In response to SHPO and the Corps Archeologist's request for a marine survey, the applicant provided a Marine Remote Sensing Survey to the SHPO and Corps on 30 January 2012 for their concurrence.

e. Corps's Consideration of Substantive Comments. A Marine survey was requested on 17 May 2010 and the applicant submitted the survey report titled *Marine Remote-Sensing Survey for Archeological Assessment of the Vancouver Artificial Reef Expansion, Gulf of Mexico, Brazoria County, Texas* on 30 January 2012. The Corps archeologist reviewed the report and requested a special condition be added to the permit that consists of a 50-meter avoidance zone surrounding the ship wreck identified in the report. The Corps will add the special condition to the Permit.

10. Compensation and Other Mitigation Actions.

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a. Compensatory Mitigation.

(1) Is compensatory mitigation required?  yes  no

(2) Is the impact in the service area of an approved mitigation bank?  yes  no

(i) Does the mitigation bank have appropriate number and resource type of credits available?  yes  no

(3) Is the impact in the service area of an approved in-lieu fee program?  yes  no

(i) Does the in-lieu fee program have appropriate number and resource type of credits available?  yes  no

(4) Check the selected compensatory mitigation option(s):

- mitigation bank credits
- in-lieu fee program credits
- permittee-responsible mitigation under a watershed approach
- permittee-responsible mitigation, on-site and in-kind
- permittee-responsible mitigation, off-site and out-of-kind

(5) If a selected compensatory mitigation option deviates from the order of the options presented in §332.3(b)(2)-(6), explain why the selected compensatory mitigation option is environmentally preferable. Address the criteria provided in §332.3(a)(1) (i.e., the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project): N/A

(6) Other Mitigation Actions. N/A

11. Determinations.

a. Public Hearing. No request to hold a public hearing for the proposed project was received during the public interest review.

b. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed project has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined the activities proposed under this permit will not exceed *de minimis* levels of direct emissions of a criteria pollutant or its precursors and are exempted by 40 CFR PART 93.153. Any later indirect emissions are generally not within the Corps continuing program responsibility and generally cannot be

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practicably controlled by the Corps. For these reasons, a conformity determination is not required for this individual permit.

c. Relevant Presidential Executive Orders.

(1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians. The proposed project lacks Tribal implications.

(2) EO 11988, Floodplain Management. The proposed project does not support floodplain development.

(3) EO 12898, Environmental Justice. The proposed project does not directly or indirectly discriminate on the basis of race, color, or national origin.

(4) EO 13112, Invasive Species. The proposed project will not affect invasive species.

(5) EO 13212 and 13302, Energy Supply and Availability. The proposed project is not energy related.

d. The following Special Conditions will be Added to the Authorization: The applicant shall establish a 50-meter avoidance zone surrounding the wreck of the George Vancouver. No reef building material shall be placed within this avoidance zone.

e. Findings of No Significant Impact. There have been no significant environmental effects identified resulting from the proposed work. The impact of this proposed activity on aspects affecting the quality of the human environment has been evaluated and it is determined that this action does not require an Environmental Impact Statement.

f. Public Interest. We find that issuance of a Department of the Army permit is not contrary to the public interest.

**FOR THE COMMANDER:**

**PREPARED BY:**



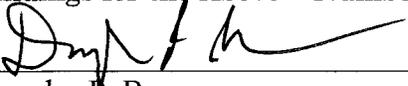
Natalie Rund  
Regulatory Specialist

Date: 01 May 2012

**REVIEWED/APPROVED BY:**

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Date: 01 May 2012

Douglas P. Boren  
Leader, Central Evaluation Unit  
Regulatory Branch, Galveston District