



The COMMONWEALTH OF MASSACHUSETTS
BOARD OF UNDERWATER ARCHAEOLOGICAL RESOURCES
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
100 Cambridge Street, Suite 900, Boston, MA 02114
Tel. (617) 626-1200
www.mass.gov/orgs/board-of-underwater-archaeological-resources

Policy Guidance for Establishing Shipwreck and Underwater Resource Avoidance Protection Plans

Introduction

The Massachusetts Board of Underwater Archaeological Resources (MBUAR) is the state agency charged with the identification, preservation, and protection of the Commonwealth's underwater archaeological resources. The purpose of archaeological investigations is to determine the presence or absence of culturally related materials, assess their importance and potential significance, and to interpret these resources for the benefit of the public. It is the intent of the MBUAR to institute a uniform guidance policy for the protection of shipwrecks and other underwater cultural resources located within Massachusetts state waters. Establishing Avoidance Areas will help eliminate potential for damage caused by human and mechanical interference to these non-renewable resources, as well as to people and equipment. All parties engaged in activity within 1000 feet of an archaeological site must follow the guidelines laid out by the MBUAR in this document.

Seafloor conditions, site dynamics, and the nature of archaeological materials vary widely and as such, no single recommendation can be made to accurately address all scenarios. However, the following represents a set of avoidance protocols developed to allow for adaptability, while offering guidance on how to best protect a site of archaeological importance.

Procedures

General recommendations for the protection of *in situ* submerged cultural resources:

- **Desk Based Assessment:** Prior to conducting any work, steps should be taken to identify known sites of archaeological significance in the vicinity. (See National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act of 1966, as amended (1976, 1980, 1992, 1999), the Advisory Council of Historic Preservation and Massachusetts General Law).
 - Consult available charts and hydrographic survey data.
 - Review archaeological site reports that pertain to the area of interest.
 - Consult the MBUAR and State Historic Preservation Office (SHPO)/Massachusetts Historical Commission (MHC; see MACRIS Maps for authorized users) to determine if there are any sites within or near the proposed work area that are currently under review for addition to the National Register of Historic Places.
 - Consult additional sources such as historical maps, historical societies, amateur archaeology groups and other local experts, or documents and records that address the history of the area.

- **Delineating an Avoidance Area:** Once a potential cultural resource deposit has been located via Desk Based Assessment, steps must be taken to avoid damaging the remains.
 - Review past and proposed work in the area and understand the location of shipping lanes and/or mooring fields, dredged channels, nearby construction, other activities (i.e., trawling, dumping, etc.) that pose a hazard to the site.
 - Undertake electronic remote sensing survey of the area to establish the full spatial extent of the site, including debris scatter. This may require a suite of specialized tools such as side scan sonar, magnetometer and sub-bottom profiler, and should be planned in coordination with MBUAR. For projects subject to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), project proponents are directed to consult with and provide their proposed research design and methodology to the SHPO/MHC and the lead federal agency in accordance with 36 CFR 800.4.
 - Establish an avoidance area that extends no less than 100 feet from the least significant feature, but no more than 1000 feet from the most significant, or at risk, archaeological deposit. MBUAR may consider smaller or larger avoidance areas depending on the nature of the resource and the proposed activities. All proposed work must remain outside of these zones.
 - Once avoidance areas are established, proponent, crews and contractors must remain considerate of the nature and extent of the site as well as the cultural, scientific, and/or historical significance of the materials.
 - Consider all activity in the surrounding region: Navigability of the body of water; sediment type and sedimentation rate; local flow regime; the nature of the work to be done and what risks it may pose to the site. This includes actions that could exacerbate natural phenomena already acting in the area and negatively impact on the resource.
 - Project proponents must prepare a research design in consultation with MBUAR. For projects subject to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), project proponents are directed to consult with and provide their proposed research design and methodology to the SHPO/MHC and the lead federal agency in accordance with 36 CFR 800.4
 - Project proponents will prepare and submit a resource avoidance plan include, at a minimum, a map depicting avoidance areas, specify actions being taken to avoid resources, coordinate activities of all crew/contractors, and steps to be taken if unanticipated finds are encountered. In planning for unanticipated finds, please refer to MBUAR's Policy Guidance for the Discovery of Unanticipated Underwater Archaeological Resources.

- **Verifying Site Boundaries:** In order to ensure protection of identified cultural resource deposits, the project proponent needs to verify the boundaries of those deposits to the extent possible.
 - This should include a determination and delineation of the deposit (site) boundaries and their spatial relationship to the proposed avoidance area and the Area of Potential Effects.
 - Appropriately mark Avoidance Area (Site) Boundaries in the project area.

- **Report:**

- Previously unknown deposits must be reported to the MBUAR in accordance with the MBUAR Policy Guidance on the Discovery of Unanticipated Underwater Archaeological Resources. As stated in Section 8 of that policy, official steps will be taken only “if agency review concurs or concludes that the site may be important and is potentially National Register eligible”. In such an event, it is the responsibility of the “project proponent to develop avoidance measures so as to eliminate the site from the Area of Potential Effects. Any proposed avoidance measures will be made available to the cognizant federal and state review agencies, MHC/ SHPO, MBUAR, and Advisory Council for review and comment.” Additionally, the project proponent should submit this information to USCG for inclusion in its Notice to Mariners updates.
- The location of the site must not be published without prior approval from MBUAR and MHC/SHPO. Targets should be listed as “soundings” on NOAA charts, as opposed to “shipwreck” or “obstruction”.
- Please consult with MBUAR regarding submitting project information to other agencies to ensure consistency with any other applicable environmental review processes. For projects subject to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), project proponents are directed to consult with and provide their proposed research design and methodology to the SHPO/MHC and the lead federal agency in accordance with 36 CFR 800.4.

Summary

Any material residing on the seafloor may represent a hazard to navigation and pose a threat to marine activity in the immediate vicinity. Avoidance Areas are designed to both allow for *in situ* preservation of archaeologically significant materials, while also ensuring the safety of mariners and equipment and engaged in activities adjacent to such materials.

No two archaeological sites are identical, and all parties are advised to stay mindful that it is important to consider both the nature of the materials and the nature of the site as a whole. Materials may be scattered and buried due to trawling or severe weather conditions. Currents may relocate smaller, though no less significant, finds to positions removed from the larger mass of the site. The wreck itself will affect local flow, changing flow conditions adjacent to the wreck and further along in the direction of the current. Work undertaken downstream of a wreck should take this into consideration. Any construction projects undertaken upstream of an archaeological site should remember that they may affect the flow patterns over the site.

It is hoped that by laying out a set of avoidance protocols and by briefly addressing some of the possible hazards to a site, a reasonable attempt will be made to minimize damage to any submerged cultural remains prior to official review of the remains.