

Galway Harbour Company



Galway Harbour Extension

Response to An Bord Pleanála Sept. 2024

EIS Addendum Chapter 13.2

Archaeology

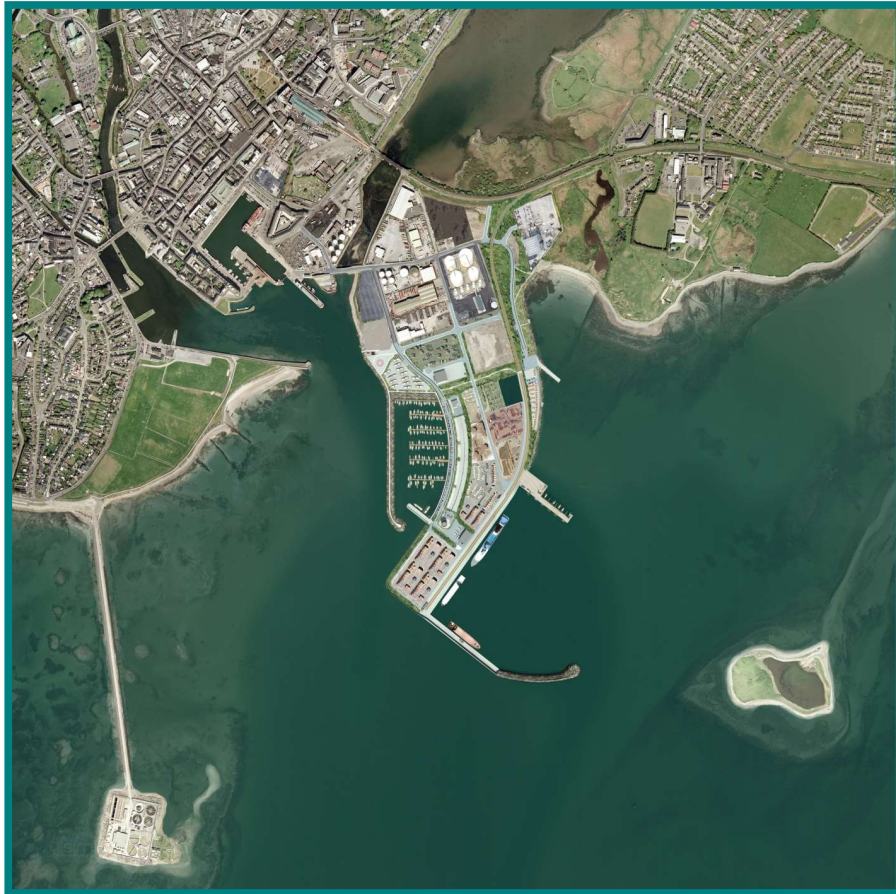


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13.2.1. Introduction

Chapter 13.2 of the original Environmental Impact Statement (“EIS”) has assessed the potential cultural heritage impacts associated with the Construction and Operational Phases of the proposed Galway Harbour Extension (“GHE”). The chapter included a comprehensive desk study of published and unpublished documentary and cartographic sources, supported by site surveys.

The purpose of this report is to bring Chapter 13.2 of the EIS as submitted in January 2014 up to date. The review and updating was carried out by Julianna O’Donoghue who also prepared the original submission.

Julianna O’Donoghue, Director of Mizen Archaeology, holds a Degree in Archaeology from University College Cork and is excavation licence-eligible since 2003. She is an underwater archaeologist and specialises in Environmental Impact Assessments Reports. As a fully qualified commercial diver, she undertakes specialist underwater archaeological services and has twenty years’ experience in intertidal surveys, underwater assessments, archaeological monitoring of dredging works and underwater excavation. She has extensive experience in all aspects of archaeological projects from the initial planning stage, to EIS, monitoring, testing, excavation and report publication.

13.2.2 Review of any material changes to relevant chapter in original EIS

The chapter sets out the assessment methodology, describes the receiving environment and summarises the main characteristics of the proposed development which are of relevance to archaeological heritage. The construction and operational impacts of the proposed harbour extension on archaeological heritage are described, measures are proposed to mitigate these impacts, and residual impacts are outlined.

Chapter 13.2 of the 2014 EIS details the following:

- Archaeological and historical context
- Terrestrial Archaeology
- Underwater Archaeology
- Surveys
- Description of Works
- Impacts
- Mitigation measures
- Residual Impacts
- Conclusion

The chapter has been reviewed in light of changes to the project description, to legislation, policy and guidance documents published in the intervening period and to changes in the baseline data.

13.2.2.1. Changes to Project Description

The only amendment to the Project Description outlined in the 2014 EIS relates to the lowering the road and footways running under the railway bridge at Lough Atalia Road described in Section 13.2.6 of the EIS. These works were completed in 2015. The excavation works were monitored under archaeological supervision and nothing of archaeological significance was uncovered. Therefore, this element is not relevant to the updated assessment.

13.2.2.2. Changes to legislation, policy and guidance documents

While the National Monuments Act, 1930 to 2014 remains in effect, Section 225 and a number of non-heritage related “miscellaneous” provisions in Part 13 of The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 have entered into force.

13.2.2.3. Changes to baseline data

All of the sources examined in the 2014 submission were reviewed, as well as more recently available sources, to determine if any new or additional information is available which could alter the impact of the development on archaeological heritage. The sources reviewed for the purpose of this addendum included:

- The Record of Monuments and Places (RMP).
- The Wreck Inventory of Ireland Database (WIID) and the Wreck Viewer.
- Ordnance Survey of Ireland (OSI) historic and contemporary maps were examined to measure the changing landscape.
- The Record of Protected Structures (RPS) as designated by Galway City Council.
- National Inventory of Architectural Heritage.
- The Database of Irish Excavation Reports.
- National Museum of Ireland Topographical Files.
- Office of Public Works Pier and Harbour Inventory.
- Cartography: Several historic maps and charts were examined.
- Aerial Photography: A variety of low and high-altitude aerial photography was examined.

- Documentary sources: Several historical and archaeological sources were examined (including those published after 2014).
- Digital archaeological resources.

The principal changes to the baseline data are:

- At least forty-five additional shipwreck sites for the wider area of Galway Bay have been included in the Wreck Inventory of Ireland Database since 2014. The National Monuments Service Wreck Viewer illustrates 3 wreck sites in the waters between Mutton Island and Hare Island. The precise location for 2 of these (W10590 & 91) were provided by the UKHO and the 3rd site (W17455) was identified during the 2014 assessment.
- An updated Galway City Development Plan which came into effect in 2023.
- Updated OSI aerial photographs of the development area are available for inspection.
- The results of ten additional archaeological investigations within close proximity to the proposed development on excavations.ie
- New INFORMAR hydrographic data sets.

13.2.3. Review of the Impacts outlined in original EIS

Having reviewed Chapter 13.2 of the EIS and taking into consideration more recent available information, it is determined that the only change to the archaeological impacts described in Section 13.2.7 of the EIS relates to the lowering of the carriageway under the railway bridge at Lough Atalia Road. As these works have been completed as part of a separate scheme in the intervening period, the impact of these works is no longer relevant to the EIS.

While other changes in legislation, guidance documents and base line data were noted, it was determined that these do not affect the impacts outlined in the EIS.

13.2.3.1. Construction Phase Impacts

Terrestrial Archaeology: recorded and potential archaeological sites

Minor groundworks are proposed to the pavement immediately outside Forthill Cemetery which is a recorded protected archaeological site (GA094-099). Given the significant amount of historic groundwork activity associated with this site in the past as a monastery, bastioned fort and now as a cemetery, there is a possibility that liminal, clandestine burial(s) or other archaeological features associated with the graveyard, 17th century bastion or Augustinian friary may be uncovered in the

course of these works. However, (1) as the ground disturbance works are minor and only generally relate to a redesign and relay of pavement to include a bicycle lane; (2) as there have been previous groundworks carried out along this area in the recent past, the likelihood of encountering in situ features or artefacts are greatly reduced

Impact Classification: Imperceptible

Underwater Archaeology: recorded archaeological sites

There are six recorded shipwreck listings in or close to the proposed development site. These wreckings occurred between 1750 and 1887. The locations given are: *Galway River; Renmore Point; New Dock Galway; Blown out of dock and driven on shore Galway Bay; Entrance to Loughataille*. The comprehensive archaeological geophysics and subsequent dive investigation surveys did not detect these wrecks or any other unknown wreck or indeed any archaeology. Certainly, it is most likely that much of the fabric of the majority of these wrecks and cargoes were salvaged around the date of their demise as the water levels in these areas are low. However, it is also possible that coherent wreck sections of these vessels as well as disparate components of their fabric and associated artefacts from them and their cargoes may be contained within the underlying subsea sediment. Remains of a wooden wreck (W17455) which lie c.1m below the seabed level are located 46m east of the proposed dredged area. Given, that all of the subsea sediment within the underwater footprint of the development will be removed by dredging works at the Construction Phase, any residual remains, including unrecorded shipwrecks, features or artefacts relating to the known recorded shipwrecks or potentially the recorded wrecks themselves, may be directly impacted on.

Therefore, as subsea sediment within the proposed development site will be entirely removed by dredging works at the Construction Phase, any potential archaeological remains, features and artefacts will be directly impacted on.

Impact Classification: Moderate to Profound, Permanent and Irreversible.

Underwater Archaeology: potential archaeological sites

The archaeological data for recorded monuments and wreck sites suggests that there is a high potential for archaeological remains in the general area of Galway Bay. There are at least one hundred and twenty-seven shipwrecks known for Galway Bay whose precise location is for the most part unknown or general i.e. off Mutton Island; Hare Island / Mutton Island; 1/4 mile NE of Mutton Island (Appendix 4 of the original EIS).

Given the extent of the maritime traffic through time and the number of recorded shipping losses in Galway Bay, as well as the use and exploitation of the littoral zone by people from the Mesolithic to the present-day, the likelihood of encountering unknown potential archaeological material is considered to be significant.

Impact Classification: Moderate to Profound, Permanent and Irreversible.

13.2.3.2. Operational Phase Impacts

Terrestrial Archaeology- Recorded and potential archaeological sites

As any potential archaeological remains will be subject to mitigation measures at Construction Stage, there are no predicted Operational Phase impacts associated with the upgrading works adjacent to Forthill Cemetery.

Impact Classification: Neutral

Underwater Archaeology: recorded archaeological sites

The wooden wreck (W17455) which lies 46m to the east of the proposed dredged area will be subject to mitigation measures at Pre-construction Stage and no Operational Phase impacts are predicted.

Impact Classification: Neutral

Underwater Archaeology: potential archaeological sites

As any potential archaeological remains will be subject to mitigation measures at Construction Stage and all potential cultural content of the seabed will have been removed during the Construction Phase, there will be no impact during the Operational Phase.

Impact Classification: Neutral

13.2.3.3. Do nothing scenario

Terrestrial Archaeology- Recorded and potential archaeological sites

If the upgrade works do not proceed adjacent to Forthill Cemetery, the site will continue to operate and function normally.

Impact Classification: Neutral

Underwater Archaeology: recorded and potential archaeological sites

Should the proposed development not proceed, all of the known recorded and unknown potential underwater archaeology will continue to be preserved in the deep subsea sediment.

Impact Classification: Neutral

13.2.4. Review of the Mitigation measures in original EIS

Following a thorough review of the original EIS and in light of more recently available data, mitigation measures in relation to the lowering of Lough Atalia Road have been removed as these works were completed in 2015. An additional Pre-Construction Stage mitigation measure in the relation to wreck site W17455 has been added (section 13.2.4.1 below).

13.2.4.1 Preconstruction Stage Mitigation Measures

A target test excavation shall be carried out on the wreck W17455 to establish the precise nature and context of the material. Should coherent remains of a historic vessel be uncovered during the archaeological testing, further mitigation measures may be necessary including full excavation of the wreck.

13.2.4.2 Construction Stage Mitigation Measures

13.2.4.2.1. Licensed archaeological monitoring of excavation works in terrestrial areas

All groundworks associated with the upgrade of the roadway, footpath and construction of the bicycle lane at Forthill Graveyard shall be archaeologically monitored under archaeological licence issued from the National Monuments Service. Should archaeological deposits, features or artefacts be recorded during the monitoring, the monitoring archaeologist will have the necessary licence in place to investigate these features without having to apply for a licence that can take up to three weeks to receive.

13.2.4.2.2 Licensed archaeological monitoring of dredging operations

All underwater dredging works and other excavation works from the shore area by land based mechanical machinery will be archaeologically monitored by experienced, licensed underwater archaeologists with a proven track record in equivalent, similar type work.

A detailed monitoring strategy will be agreed between the appointed archaeologist, the Underwater Archaeology Unit of the National Monuments Service and the National Museum of Ireland. This will include agreement on an appropriate finds retrieval strategy, the number of personnel, communication policy and reporting of potential finds. An archaeological dive team shall remain on stand-by for the duration of the dredging operations.

In the event that the dredging operations impacts on a possible archaeological site, then the dredger will be moved to a different area while the standby archaeological dive team is mobilised to undertake an initial assessment of the material. This initial assessment will determine the nature, extent and significance of the archaeological remains. Based on the results of the initial assessment, further archaeological mitigation measures will be agreed upon with the National Monuments Service and the National Museum of Ireland. These mitigation measures may involve further investigative, targeted test excavations and / or potentially full excavation.

Suitable artefact storage facilities shall be in place prior to the commencement of dredging operations. This will include the placement of small tanks on board the dredging vessel and a larger storage facility nearby on land for the storage and processing of artefacts retrieved during the dredging operations. Provision will be put in place for the full recording, analysis and long-term conservation of artefacts recovered during the project.

13.2.4.2.3. Archaeological testing of dried lagoons

The seabed deepening will be undertaken by a trailer suction hopper dredger and a back-hoe dredger that will redeposit the dredged sediment in constructed lagoons within the proposed development site where it will be left to dry. These dried lagoons shall be archaeologically tested to recover any potential archaeological artefacts in the sediment. The archaeological testing shall involve a programme of sieving and licensed metal detection thus maximising artefact recovery. A detailed testing methodology will be agreed between the appointed archaeologist, the Underwater Archaeology Unit of the National Monuments Service and the National Museum of Ireland.

13.2.5. Review of Concluding Statement in Original EIS chapter

The previous EIS conclusion remains valid. It states:

“Galway City is an outstanding heritage city with an extensive historic tradition associated with the sea, seafaring, voyaging, exploration, trade and international contact with Europe and especially with Spain. However, the historic record clearly demonstrates that its port has not been effective in being able to cope with larger and more diverse maritime traffic and trade. The proposed development will not in any way physically affect the continued use or enjoyment of the existing built cultural heritage of the historic quays and harbour of Galway.

There are no recorded archaeological monuments within the underwater area of the proposed development. A series of comprehensive archaeological mitigation measures shall be put in place in advance of the construction stage which will appropriately deal with any potential unrecorded archaeological remains concealed within the sediment.

It is possible that artefacts from a number of archaeological periods will be recovered from the marine sediment by the proposed mitigation measures. These artefacts will increase and enhance our current understanding and knowledge of the maritime archaeology of Galway. Furthermore, it is likely that these artefacts will most likely go on display in Galway City Museum as a visitor attraction and also as an important visible expression and understanding of the cultural maritime heritage of Galway.”

13.2.6. Cumulative Impacts

13.2.6.1 Purpose of this section

This section comprises an assessment of cumulative impacts on archaeology during construction and operation Stage from the GHE project in combination with other developments in the surrounding area which have been built or approved since the EIS was submitted. The EPA defines a cumulative effect as:

“The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.”

13.2.6.2 Cumulative assessment area

Considering the characteristics of the project, the likely nature of other potential projects in the local area, and the archaeological receptors, a 1 km radius was selected as an appropriate assessment area for cumulative impacts.

13.2.6.3 Projects identified in assessment area

The project team identified an exhaustive list of development projects approved by various authorities in the Galway area since the 2014 EIS was submitted (See Chapter 2). Projects within a 1 km assessment radius of the GHE boundary have been reviewed to determine if:

- Any new relevant sites have been constructed since 2014 in closer proximity to the GHE site than impacts assessed in the 2014 EIS.
- Any new relevant sites have been permitted in proximity to the GHE site in recent years, but which have not yet built.
- Any new proposals of note have been approved within 1 km of the GHE site since 2014, which might affect archaeology.
- Any new proposals within 1 km have received permission, but have not yet been built, and may thus result in construction or operational impacts of note in future years.

A fundamental component of the EIS is to consider and assess the potential for cumulative effects of the project with other projects, plans and activities. The cumulative impact is predicted to be localised, short-term and not significant. The sensitivity and magnitude of the cumulative impact are considered to be low to negligible. There are no significant cumulative impacts with other projects predicted. All residual impacts are predicted to be not significant.

Table 13.2-1 summarises a review of identified projects listed in the project databases searched. The review indicates that there are no projects of potential cumulative significance, and therefore cumulative impacts are not expected.

Table 13.2-1: Projects of potential cumulative significance.

Database	Analysis
Part 8 applications	No new sites constructed or proposed since 2014 nearer to the GHE boundary than those assessed in the 2014 EIS, or which might themselves influence archaeology.
An Bord Pleanála cases 2014-2016	No new sites constructed or proposed since 2014 nearer to the GHE boundary than those assessed in the 2014 EIS, or which might themselves influence archaeology.
An Bord Pleanála cases 2016-2024	84 projects listed within 1 km of the GHE boundary. None of these are, or will be, nearer to the GHE boundary than those assessed in the 2014 EIS, and none currently, or will in future, influence archaeology.
Waste databases	Permission granted for four projects within 1 km (Colas oil depot, Topaz oil depot, Hazel Mountain Chocolate, wastewater treatment plant). The 2024 baseline survey indicates that none of these influence archaeology.
EPA licensed waste facilities	There are no facilities within 1 km.
EPA licensed IPC facilities	There are no facilities within 1 km.
EIA location point	Most identified points relate to the proposed N6 Galway Bypass, and the proposed Bus Connects scheme. The bypass project does not have any implications for the archaeology proposed GHE development. The Bus Connects scheme does not have any implications for the archaeology in the proposed project. Both projects will have localised impacts with their own mitigations measures similar to the Galway Harbour Extension.
Seveso points	The Circle K oil depot at the Galway Harbour Enterprise Park is the only site in proximity. This facility does not influence archaeology.
Local authority planning applications 2014-2024	136 projects located within 1 km of the GHE boundary. None of these are, or will be, nearer to the GHE boundary than receptors assessed in the 2014 EIS. The following projects were further considered: <ul style="list-style-type: none"> - Ceannt Station original planning reference 1418, Ceannt Station amendment planning reference 2287, Augustine Hill most recent planning reference 2047: These sites have localised site works and will have their own mitigation measures. - Planning reference 173: Bitumen storage facility at Galway Harbour Enterprise Park. The facility does not contain any archaeology of significance. - Planning reference 1785: New playing pitch and walkway/cycleway at Ballyloughnane, Renmore. No impacts attributable to this development were noted. - Planning reference 18402: Improvements to sportsground facilities at College Road. Nothing of archaeological significance was discovered during monitoring of construction works.

13.2.6.4 Conclusions in relation to impacts

From an Archaeological perspective, the construction phase of adjacent projects may also be dealing with soil and excavations and so were considered. As the works relating to archaeology / excavation in the Galway Harbour Extension are localised, remote from the city in an underwater zone or on ground that has already been developed in the Galway Harbour area the cumulative impact is imperceptible. The Galway Harbour Extension project will have its own mitigation measures as will any projects that are adjacent.

13.2.7. Assessment of validity of earlier conclusions or any necessary amendments to same.

There are no changes to the conclusions due to the passage of time and the extensive mitigation measures remain as proposed and now also include for the wreck site as described in Section 13.2.4.1.

