6. Discussion & Overview

It is clear from this study that the landscape that the proposed development is located is rich in cultural heritage elements from the earliest times to the present. Perhaps the most important of those is that of Cobh Town itself CH26. Due to its historic past and its protected structures (which are seen as individual elements) it was decided that in the case of this study it should be seen as a cohesive entity. This ethos is echoed in the town's Development Plan (CTC 2005). Most of the proposed development is underground pipe work, so while it is predicted to be visible when construction is taking place, in the long term, the visual impact should not be permanent. Major pumping stations will have a visual impact, particularly the one proposed for West Beach Cobh. This should be designed sensitively with its central location borne in mind, among all the historic structures. The other stations might also be suitably screened and their construction either/or archaeologically test trenched or monitored. The following is an overview of the results of the study.

6.1 Cultural Heritage (Table 8)

Constraint Study Code	Townland	Monument Type	Status
CH1	Rathanker	Ringfort	Recorded, RMP
CH2	Ballywilliam	Holy Well	Recorded, RMP
CH3	Parkgarriff	Ringfort	Recorded, RMP
CH4	Ballyfouloo	Holy Well	Recorded, RMP
CH5	Monkstown (Castlefarm)	Lime Kiln	Recorded, RMP
CH6	Carrigaline Middle	Mill	Recorded, RMP, RPS
CH7	Carrigaline Middle	Church & Graveyard	Recorded, RMP, RPS
CH8	Shanbally	Lime Kiln	Recorded, RMP
CH9	Shanbally	Enclosure	Recorded, RMP
CH10	Shanbally	Circular Enclosure	Recorded, RMP
CH11	Ballybricken	Possible church	Recorded, RMP
CH12	Ringaskiddy	Shell Midden	Recorded, RMP (no works proposed here at present)
CH13	Kilgarvan	Church	Recorded, RMP
CH14	Kilgarvan	Graveyard	Recorded, RMP
CH15	Kilgarvan	Graveyard	Recorded, RMP
CH16	Rathanker	Possible souterrain	Recorded, RMP
CH17	Carrigaline East	Possible souterrain	Recorded, RMP
CH18	Carrignafoy	Battery	Recorded, RMP

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CH19	Commeen	Fulacht fiadh	Recorded, RMP
CH20	Ringaskiddy	Memorial	Unrecorded
CH21	Ringaskiddy	Plaque	Unrecorded
CH22	Ringmeen (Whitepoint)	Limekiln	Unrecorded
CH23	Ballyfouloo "Strawhall"	Railway embankment (and perhaps remains of Raffeen Mills)	Unrecorded
CH24	Kilnaglery/Commeen	The Dandy Bridge	Unrecorded
CH25	Kilnaglery	Railway embankment (and possibly Kilnaglery bridge)	Unrecorded
CH26	Cobh Urban District	Cobh Historic Town	Unrecorded (as a historic entity)
CH27	Ballyvoloon	Church and Graveyard	Recorded RMP, RPS

Table 8. Summary of Cultural Heritage Constraints

6.2 Other Designations (Fig. 24, Table 9)

This report is primarily concerned with the cultural heritage of the subject site proposed for the scheme. (RMP and PS). However, it is important to note that the study area is variously designated in the County Development Plan 2003. The mapping used dates to April 2006. It was obtained from the Cork County Council website. The other designations of the study area are as follows (correct at the time of writing and not an exhaustive list):

Location in study area	Scenic Route Scenic Route Scenic Route	Sode	Cork County Development Plan location (CCC 2006)
R610/N28 (Passage West/Monkstown/Ringaskiddy)	Scenic Route Control	A54	Мар 9
R624 (Cobh Road)	Scenic Route	A53	Map 9
R612 (Carrigaline to Crosshaven)	Scenic Route	A56	Map 15
N and NW of Passage West, Along R610 Monkstown, Monkstown, portion N of Monkstown		N/a	Map 9
Great island, north of Cobh along R624	Scenic Landscape	N/a	Map 9
N and S of Owenboy River, Carrigaline	Scenic Landscape	N/a	Map 15
Owenboy River Estuary	Nature Conservation	PNHA- 1990	Map 15
Monkstown Creek	Nature Conservation	PNHA- 1979	Мар 9
Cuskinny Bay (E of Cobh)	Nature Conservation	PNHA- 1987	Map 9
Cork Harbour	Special Protection Area		Section 7.2.8 in Carrigaline Electoral Area Local Area Plan (CCC 2005 and CCC as varied)

Table 9. Other Designations in study area (after CCC 2006 with additions)

Cork County Council also has adopted a county Heritage Plan 2005-2010, (CCC 2005) which has several objectives in relation to heritage in the County. None of the objectives are specific

to the study area, however, these objectives should be borne in mind. It was consulted as part of this study. This Plan is available from www.corkcoco.ie.

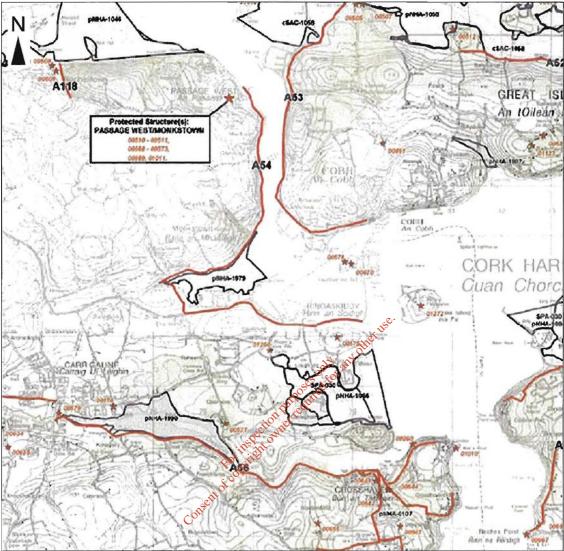


Figure 24. Other designations in study area (after CCC 2006 with additions)

7. Conclusions & Suggested Mitigation Summary

Twenty-seven cultural heritage constraints have been identified as part of this study. Some are archaeological monuments, protected structures or both. One new archaeological monument, a limekiln was noted during the study. The town of Cobh was allocated a cultural heritage number due to its importance within the study area. The cultural heritage features highlight the importance of this locality from prehistory to the present day. Specific mitigation measures have been suggested in section 5 of this report. Underwater/intertidal areas (marked in blue) have been considered separately in the ADCO report in section 10. Further general mitigation measures are provided below.

7.1 Predicted Impacts

7.1.1. "Do-Nothing" Scenario

If nothing is done at the locations described in this report then the extant and possible subsurface cultural heritage features including archaeology, will remain as they are at present.

7.1.2 "Worst Case" Scenario

If no cultural mitigation measures are put in place it is predicted that it is possible that cultural heritage features including archaeology and artefacts, which may lie sub-surface may be destroyed or damaged without a suitable record being made.

7.1.3 Predicted Impact Scenario

Indirect impacts are predicted for a number of CH sites along the route. This means that the ZAP for a number of recorded sites is predicted to be impacted by the current route of the pipeline. ZAP are indicative zones around a monument only. Visual impact in relation to

pipelines is predicted not to be permanent as they are to be buried. Pumping stations and WWTP are predicted to have permanent visual impacts on a number of CH sites. Suitable screening is suggested in these cases. Specific impact information is detailed for each CH site in tables 5-7 above (column headed "Type of Impact Predicted" in each case) and so is not repeated here. A summary is provided in Table 10.

7.1.4 Predicted Residual Impacts

It is anticipated that in the event of the mitigation measures as detailed in this report being implemented in accordance with the requirements of the National Monuments Section (NMS) and the National Museum of Ireland (NMI) there will be no residual impacts arising from the proposed development.

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7.2 Suggested Mitigation

As detailed above, some indirect impacts are predicted on the cultural heritage of the area. In order to mitigate the predicted impacts, mitigation has been suggested. Each CH site has specific mitigation suggested in tables 5-7 (column headed "Suggested Mitigation Measure") and so has not been repeated here. Pre-construction archaeological testing has been suggested particularly for the WWTP site and the pumping stations, with varying levels of archaeological monitoring throughout the scheme. Suitable screening is suggested for pumping stations and WWTP to alleviate any negative visual impacts that might occur. The suggested mitigation measures in this report are those which have been used previously on similar projects. However, it is important to note that these mitigation measures are suggestions and that it is the remit of the NMS of the DoEHLG in consultation with the NMI that recommends and ratifies any archaeological mitigation required. As such, those bodies may recommend measures that have not been included here. Table 10 provides a summary of the suggested mitigation for the project.

General predicted impact Summary	Mitigation measure Summary			
Predicted impacts on specific CH sites 1-27 detailed in section 5	Refer to section 5 for suggested specific measure			
Impact of green field pipe routes on unrecorded subsurface archaeology or cultural heritage	Archaeological test trenching and/or monitoring of pipe			
Impact of WWTP	Archaeological testing in advance of construction			
Impact of WWTP Impact of pipe routes where it cuts boundaries such as barony/townland boundaries Impact of pipe routes within zones for CH sites	Archaeological test trenching of locations where this occurs			
Impact of pipe routes within zones for CH sites	Archaeological monitoring of these locations			
Impact of pipe routes along roads outside zones for CH sites	Archaeological Inspections of works at these locations			
Impact of major pumping station locations: Monkstown, Raffeen/Strawhill, West Beach and Carrigaloe	Archaeological testing and/or monitoring of these locations			
Visual Impact of pipeline routes	Suitable screening during construction especially in CH26			
Visual Impact of major pumping stations	Suitable screening to minimise visual impact on cultural heritage. In particular, sensitive design of West Beach pumping station in line with provisions of Cobh Development Plan (CTC 2005), due to its highly visible location with the cultural heritage town of Cobh.			
Predicted Impacts on underwater and intertidal zones (as indicated by blue lines on mapping)	Refer to specific measures as set out in ADCO report section 10 of this report.			
Scale of proposed development	Due to scale of proposed development it is suggested that a Project Archaeologist be appointed to the project to oversee and manage its cultural heritage dimension during construction by liasing directly with main contractor (as has been done in similar projects previously)			

Table 10. Mitigation Summary

7.3 Non-Technical Summary

7.3.1 Scope of Study

This is a desk based and fieldwork study to assess the potential impact of the proposed development on the potential archaeological and cultural heritage significance of the site. Aegis Archaeology Limited undertook the terrestrial dimension of the study and ADCO Limited was contracted to undertake the underwater and intertidal dimension.

7.3.2 Method of Study

The site was visited on three occasions by two qualified archaeologists and recorded in the proper fashion (as per published guidelines in the compilation of EIS). A desk based study was undertaken which consulted all immediately available material relating to the site, including review of archaeological works, National Museum files, archaeological information held and published by the Archaeological Survey of Ireland, Cork County Development Plans, national Inventory of Architectural Heritage was contacted, though this body has yet to undertake fieldwork at this location (their future work may have a bearing on this project presently), local histories, mapping and aerial photosomy.

An underwater and intertidal archaeological survey of two pipeline impact corridors was undertaken. Systematic visual inspection of the sub-tidal seabed and intertidal/ foreshore areas surrounding the proposed impacts did not reveal any material or features of archaeological significance. The work was carried out under licence from the DEHLG.

7.3.3 Existing Environment

The environment at present is a mixture of landscapes which include roadways in urban centres, roadways in countryside, green field locations, intertidal and underwater locations. For the purposes of the study the area was subdivided into five areas which were assessed in turn. They are: Passage West, Monkstown, Raffeen/Strawhill; Carrigaline; Shanbally (WWTP); Ringaskiddy and Cobh and environs. The underwater and intertidal dimension was undertaken by ADCO and is detailed in their report (section 10 of this report).

Twenty-seven cultural heritage constraints have been identified as part of this study. Some are archaeological monuments, protected structures or both. One new archaeological monument, a limekiln was noted during the study. The town of Cobh was allocated a cultural heritage number due to its importance within the study area. The cultural heritage features highlight the importance of this locality from prehistory to the present day.

The underwater assessment was undertaken along the works corridor identified for the proposed marine pipeline, crossing between Monkstown and Cobh (River Lee Estuary), and the inter-tidal survey was carried out across the route of the proposed foreshore pipeline at Carrigaline (north side of Owenboy River).

7.3.4 Impacts of the Proposed Development

The landscape is rich in cultural heritage elements from the earliest times to the present. Perhaps the most important of those is that of Cobh Town itself. Due to its historic past and its protected structures (which are seen as individual elements) it was decided that in the case of this study it should be seen as a cohesive entity. It is important to note that the National Inventory of Architectural Heritage have yet to undertake fieldwork in this area and it is likely that their work will produce further protected structures, which may have a bearing on this project. This "entity" ethos is echoed in the town's Development Plan. Most of the proposed development is underground pipe work, so while it is predicted to be visible when construction is taking place, in the long term, the visual impact should not be permanent.

Major pumping stations will have a visual impact particularly the one proposed for West Beach Cobh. This should be designed sensitively with its central location borne in mind, among all the historic structures. The other stations might also be suitably screened and their construction either/or archaeologically jest trenched or monitored.

A number of archaeological sites are located in the region however no archaeological sites are predicted to be directly impacted by the proposed development site. The WWTP site has a ringfort monument located northeast of the site, with a possible second, further eastwards. The buffer zones around these sites should be respected and pipe work should be outside these areas.

There are no documented occurrences of any archaeologically significant items or sites on the proposed development site. However, it is possible that features and artefacts of interest may be unearthed during the construction works. The loss of such artefacts would be a significant impact.

It is anticipated that in the event of the mitigation measures as detailed in this report being implemented in accordance with the requirements of the National Monuments Section (NMS) and the National Museum of Ireland (NMI) there will be no residual impacts arising from the proposed development.

7.3.5 Conclusions and Suggested Mitigation

The subject site is within an area rich in cultural heritage and archaeology. Ground disturbance works associated with the construction of the proposed development may have an impact on the western portion of the enclosure, adjacent to the site boundary of the WWTP site. In order to be proactive, Archaeological testing works are suggested at the WWTP site and pumping stations locations in order to undertake some archaeological works at preconstruction stage. Pipe locations along roads may reveal features of archaeological interest. As such, monitoring by a fully qualified archaeologist is recommended, to reduce potential impacts.

It is recommended that archaeological monitoring of riverbed/ seabed disturbances during construction be undertaken, with the proviso to resolve fully any archaeological material observed at that point. Archaeological Monitoring of the proposed foreshore pipeline is not deemed necessary.

Several methods of archaeological mitigation have been suggested here, as has been used in similar projects. It is the remit of the National Monuments Section of the Dept of the Environment, Heritage and Local Government, to legally recommend any one or a combination of these mitigation measures and perhaps to make recommendations that have not been suggested above (sometimes through the local authority).

8. Signing-Off Statement

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For AEGIS ARCHAEOLOGY LIMITED

Dated: December 2007

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