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	Code	Cork County Development Plan location (CCC 2006)
R610/N28 (Passage West/Monkstown/Ringaskiddy)	Scenic Route 120	A54	Map 9
R624 (Cobh Road)	Scenic Route	A53	Map 9
R612 (Carrigaline to Crosshaven)	Scenie 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	Map 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.

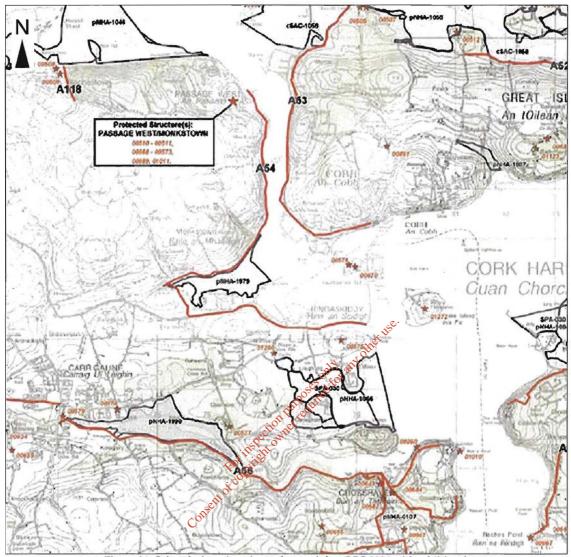


Figure 24. Other designations in study area (after CCC 2006 with additions)

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.

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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	Rield walking of ALL green field areas when accessible. CArchaeological test trenching and/or monitoring of pipe routes		
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	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 ring-fort 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.

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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

9. Project References (consulted)

1984 Index to the Townlands and Towns, Parishes and Baronies of Ireland, from the census of 1851. Baltimore: Genealogical Publishing Company.

Aalen, F.H.A. Whelan, K. and Stout, M. (eds) 1997 Atlas of the Irish Rural Landscape. Cork: University Press.

Archaeological Survey of Ireland 1998 RMP constraint maps and List for County Cork Dublin: The Stationary Office.

Archaeological Survey of Ireland n.d. Record of Monuments and Places Files (SMR). Unpublished.

Barry, T. 1987 The Archaeology of Medieval Ireland. London: Routledge.

Bence-Jones, M. 1988 A Guide to Irish Country Houses. London: Constable.

Buckley, V. (ed.) 1990 Burnt Offerings. Bray: Wordwell.

Buttimer, N., Rynne, C., and Guerin, H. (eds) 2000 The Heritage of Ireland. Cork: The Collins Press.

Cobh Town Council 2005 Cobh Town Development Plan Cobh. Town Council.

Collins, T. and Coyne, F. 2003 Fire and Water Stearly Mesolithic cremations at Castleconnell, Co. Limerick, Archaeology Ireland, 17, 2, 24-7.

for

Collins, T. and Coyne, F. 2006 As old as we felt..., Archaeology Ireland, 20, 4, 21. -

Coleman, J. 1907 The Martello Towers of Cork Harbour, Journal of the Cork Historical and Archaeological Society, 13, 197-200.

Cork County Council as varied Cork County Development Plan 2003. Cork: County Council.

Cork County Council. 2005 Heritage Plan 2005-2110 prepared by the County Cork Heritage Forum. Cork: Cork County Council.

Cork County Council 2005 Carrigaline Electoral Area Local Area Plan September 2005. Cork: County Council.

Cork County Council 2005 Midleton Electoral Area Local Area Plan September 2005. Cork: County Council. [for Cobh].

Cork county council 2005 Midleton Special Local Area Plan Sept 2005. Cork: County Council.

Cork County Council n.d. *Guidance Notes for the Appraisal of Historic Gardens, Demesnes, Estates and their Settings. An action of the County Cork Heritage Plan 2005/2010.* Cork: Cork County Council.

Department of Environment Heritage and Local Government 1998 List of Recorded Monuments Protected under Section 12 of the National Monuments (Amendment) Act, 1994: County Cork. Dublin: DoEHLG

Duffy, P., Edwards, D., FitzPatrick, E. (eds) 2001Gaelic Ireland Land Lordship and Settlement c.1250-1650. Dublin: Four Courts Press.

Duffy, P.J. 2006 The Shape of the Parish in E. Fitzpatrick and R. Gillespie (eds) *The Parish in Medieval and Early Modern Ireland: Community, Territory and Building.* Dublin: Four Courts Press, 33-61.

Edwards, N. 1990 The Archaeology of Early Medieval Ireland. England: Batsford.

ÆGIS ARCHAEOLOGY LIMITED

Enoch, V.J. 1975 The Martello Towers of Ireland. Dublin: Eason.

Environmental Protection Agency 1995 Advice Notes on current practice. Dublin: Environmental Publications.

Environmental Protection Agency 2002 *Guidelines on the information to be contained in Environmental Impact Statements.* Dublin: Environmental Publications.

Howley, J. 1993 The Follies and Garden Buildings of Ireland. London: Yale.

Kerrigan, P.M. 1978 The Defences of Ireland 1793-1815, Part 10: Cork Harbour and Kinsale, An Cosantoir, 145-50.

Monk, M. 2007 Fulachta Fiadh: a greasy subject, Archaeology Ireland, 21, 1, 22-4.

NIAH 2006 NIAH Handbook. Dublin: Department of the Environment Heritage and Local Government.

National Roads Authority no date Guidelines for the assessment of Archaeological Heritage Impacts of National Road Schemes, Dublin: NRA.

National Roads Authority no date (a) Guidelines for the assessment of Architectural Heritage Impacts of National Road Schemes. Dublin: NRA.

O'Brien, W. 2006 No. 174. Barrees, Co. Cork. Ancient Settlement Landscape. In I. Bennett (ed.) Excavations 2003, Summary Accounts of archaeological excavations in Ireland. Bray: Wordwell, 39-40.

O'Kane, F. 2004 Landscape Design in Eighteenth-Century Ireland. Cork: Cork University Press.

O' Keeffe, T. 2002 Medieval Ireland: An Archaeology. Stroud: Tempus.

Ó Nualláin, S. 1984 A Survey of Stone Circles in Cork and Kerry. Proceedings of the Royal Irish Academy, 84C, 1-77.

O'Sullivan, A. and Sheehan, J 1996 The Iveragh Peninsula: An Archieological Survey of South Kerry. Cork: University Press.

Ordnance Survey 1840-1938 Six-inch maps for County Corke 175, 87, 99; two editions. Dublin: Ordnance Survey of Ireland.

Ordnance Survey 1997 Discovery Series map for county Cork, sheets 81 and 87. Dublin: Ordnance Survey.

Power, D. 1994 Archaeological Inventory of County (Sork Vol. II East and South Cork. Dublin: The Stationery Office.

Robinson, P. 1984 The Plantation of Ulster. USA: Ulster Historical Foundation.

Rynne, C. 1993 The Archaeology of Cork Ety and Harbour from earliest times to industrialisation. Cork: The Collins Press.

Rynne, C. 1999 The Industrial Archaeology of Cork City and its Environs. Dublin: The Stationery Office.

Rynne, C. 2005 Connecting Cork in Crowley, J.S., RJN Devoy, D. Linehan and P. O'Flanagan (eds) Atlas of Cork City. Cork: Cork University Press, 194-201.

Rynne, C. 2006 Industrial Ireland 1750-1930 An Archaeology. Cork: The Collins Press.

Sheehan, J. and Monk, M. (eds) 1998 Early Medieval Munster: Archaeology, History and Society. Cork: Cork University Press.

Stout, M. 1997 The Irish Ringfort. Dublin: Four Courts Press.

Twohig, E. 1990 Megalithic Tombs. England: Shire.

Waddell, J. 1990 The Bronze Age Burials of Ireland. Galway: Galway University Press.

Waddell, J. 1998 The Preliistoric Archaeology of Ireland. Galway: Galway University Press.

Zajac, S., J. Cronin, and J. Kiely. 1995 Urban Archaeological Survey of County Cork. Cork: Archaeological Survey of Ireland, OPW.

Other sources consulted for the study:

O'Flanagan, P. and C.G. Buttimer (eds) 1993 Cork History and Society. Dublin: Geography Publications.

National Museum of Ireland Topographical Files

Archaeological Survey of Ireland SMR Files

www.excavations.ie www.buildingsofireland.ie http://www.passagewestmonkstown.ie/history-pre1600.asp www.corkcoco.ie www.cobh.ie.

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