Jacobs

Greater Dublin Drainage Project Addendum

Environmental Impact Assessment Report Addendum: Volume 3A Part A of 6

Chapter 16A Archaeological, Architectural and Cultural Heritage

Uisce Éireann

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16. Archaeological, Architectural and Cultural Heritage

16.1 Introduction

As detailed in Chapter 1A (Introduction) in Volume 2A Part A of this Environmental Impact Assessment Report (EIAR) Addendum, we have reviewed Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR submitted with the original 2018 planning application, in the light of:

- Changes to the baseline environment;
- The requirement for updated surveys; and
- Changes to the law, policy, and industry standards and guidance in the intervening period.

Table 16.1 includes a summary of the project elements which were incorporated into the planning design for the Greater Dublin Drainage Project (hereafter referred to as the Proposed Project), following direction at the Oral Hearing in 2019 and the subsequent planning conditions applied to the 2018 planning application submission. A full description is included in Chapter 4A (Description of the Proposed Project) in Volume 2A Part A of the EIAR Addendum. The remaining elements of the Proposed Project included in the 2018 planning application remain unchanged.

Table 16.1: Updated Proposed Project Elements

Updated Element	Outline Description of Updated Element			
Ultraviolet (UV) Treatment	 UV Treatment is to be included in the treatment process at the proposed wastewater treatment plant (WwTP) in the northern section of the WwTP site. The UV treatment system will be designed for the expected flows at the plant and will be installed on the final effluent line. UV treatment will be in operation 24 hours a day, 365 days a year. The UV system will consist of a minimum of three and a maximum of four treatment units located below or partially below ground level with an above-ground Motor Control Centre (MCC) (in a kiosk) along with minor maintenance and control equipment (e.g. shut-off button, frame for supporting, retracting and cleaning of UV lamps etc.). 			
River Mayne Culvert Extension	 Extension of the River Mayne Culvert on the proposed access road to the WwTP by 4m (from 21m to 25m) to cater for the full width of the future north south link road. 			

This Addendum Chapter should be read in conjunction with Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR submitted with the original 2018 planning application.

It should be noted that the updated landscape assessment for the proposed Regional Biosolids Storage Facility (RBSF) is included in Section 11A (Cultural Heritage) in Volume 4A Part A of this EIAR Addendum.

16.1.1 Consultation

Following an Oral Hearing process, An Bord Pleanála (ABP) previously made a decision to grant the planning application by Order dated 11 November 2019 under reference number ABP-301908-18 for the Proposed Project. That decision was quashed by Order of the High Court and the case was remitted by that Court to ABP for a fresh determination. Following the remittal Order, ABP decided that given the passage of time since the submission of the original planning application, and in accordance with Section 37F(1)(c) of the Planning and Development Act 2000 (as amended), Uisce Éireann should have the opportunity to update, where appropriate, the EIAR and Natura Impact Statement, and any other information submitted.

In light of this, ABP contacted those who had made submissions as part of the original consultation process in 2018 advising that the case had been reactivated under a new reference number (ABP-312131-21) and invited those interested parties to make any further general submissions / observations on the planning application by 30 September 2022. A total of 16 submissions were received and were reviewed. There were no significant comments relating to archaeological, architectural and cultural heritage that required any amendments to the assessment or the outcome of the assessment.

It is noted that the former Department of Culture, Heritage and the Gaeltacht noted in this Section of the EIAR in the 2018 planning application is now the Department of Housing, Local Government and Heritage. There are no other changes to the information presented in this Section of the EIAR in the 2018 planning application.

16.2 Methodology

This Section of Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR submitted with the original 2018 planning application was reviewed in order to determine if there have been any updates to the policy, legislation and / or guidance governing the assessment of archaeological, architectural and cultural heritage in the intervening period.

The following updated guidelines and reference materials have been considered as part of this Addendum Chapter but have been determined to have no material impact on the previous assessment completed as part of the 2018 planning application. This is due to the fact that the updated documents have not changed the methods used to assess the archaeological, architectural and cultural heritage resource:

- Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the updated EPA Guidelines) (EPA 2022); and
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of the Environment, Community and Local Government 2018); and
- S.I. No. 296/2018 European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

16.2.1 Background

A desk-based review was undertaken in August 2023 to assess any changes to the baseline environment with regards to archaeological, architectural and cultural heritage, since the original 2018 planning application.

The study area remains unchanged from the 2018 planning application due to the fact that the only changes proposed comprise the inclusion of ultraviolet (UV) treatment at the proposed WwTP and the River Mayne Culvert extension, which both fall within the original planning application boundary. Neither of these additions affect the archaeological, architectural and cultural heritage study area.

16.2.2 Paper Survey

This Section of Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR submitted with the original 2018 planning application was reviewed in order to determine if there have been any updates to the sources examined for the archaeological, architectural and cultural heritage assessment.

A number of additional recorded monuments are now located within the study area, as detailed throughout Section 16.3 below. The addition of these monuments to the record do not materially affect the results of the assessment carried out during the 2018 planning application, as they are not located within the Proposed Project boundary but do add more archaeological context to the study area.

The Excavation Bulletins digital record has been updated since the original 2018 planning application, and now includes digital records from 2011 to 2023. This updated record has been considered as part of this Addendum Chapter and whilst the addition of new excavations in the study area is an important addition to the archaeological context of the assessment, it does not materially affect the assessment carried out as part of the 2018 planning application.

The recently adopted Fingal Development Plan 2023 - 2029 (Fingal County Council (FCC 2023)) and Dublin City Development Plan 2022 - 2028 (Dublin City Council (DCC 2022)) have been reviewed. One additional Protected Structure is now located within the study area of the Proposed Project (BtH 29), but no other changes are detailed in these development plans that materially affect the results of the assessment carried out as part of the 2018 planning application.

All other sources remain as presented in this Section of the EIAR in the 2018 planning application. It should be noted that the Department of and Minister for the Department of Culture, Heritage and the Gaeltacht, as previously referenced in this Section of the EIAR in the 2018 planning application, are now referred to as the Department of and Minister for Housing, Local Government and Heritage.

16.2.3 Field Inspection

This Section of the EIAR remains unchanged from 2018, as the redline boundary of the Proposed Project remains unchanged and no new archaeological, architectural or cultural heritage sites have been identified within the Proposed Project boundary.

16.2.4 Geophysical Survey

This Section of the EIAR remains unchanged from 2018, as the results of geophysical survey work do not change over the passage of time, and therefore, have not changed since the original 2018 planning application survey was completed.

16.2.5 Archaeological Testing

This Section of the EIAR remains unchanged from 2018, as the results of archaeological testing do not change over the passage of time, and therefore, have not changed since the original 2018 planning application survey was completed.

16.2.6 Underwater Archaeological Assessment

This Section of the EIAR remains unchanged from 2018, as the results of underwater archaeological assessment do not change over the passage of time, and therefore, have not changed since the original 2018 planning application survey was completed.

16.2.7 Definitions

There are no changes to the definitions outlined in this Section of the EIAR in the 2018 planning application.

16.3 Baseline Environment

A desk-based review has been undertaken to assess any changes to the baseline environment with regards to archaeological, architectural and cultural heritage since the original 2018 planning application. The following updates to the baseline environment have been identified and considered in this Chapter of the EIAR Addendum.

16.3.1 Archaeological and Historic Background

Prehistoric Period

The following two subheadings under this Section of the EIAR in the 2018 planning application have been updated. The remaining information under the remaining subheadings in this Section of the EIAR in the 2018 planning application remain unchanged.

Bronze Age Period (c. 2500 – 800BC)

With regards to the Bronze Age period, a number of additional ring ditches have been identified in the study area of the Proposed Project since the compilation of the 2018 planning application. These include AH 58-61, 69-72, 74, 76 and 77, which have been recorded as cropmarks that are visible in recent satellite coverage held by Google Earth.

It is also noted that AH 53 was incorrectly referred to as AH 52 in this Section of the 2018 planning application. AH 53 is the site of an excavated burnt mound located to the immediate north of the proposed access route into the National Sports Campus at Abbotstown.

Early Medieval Period (c. AD500 – 1100)

There are now four recorded ringforts (previously three) located within the study area of the Proposed Project, (AH 8, 19, 23, 75), with AH 75 being the most recent addition.

16.3.2 Recorded Archaeological Heritage Sites

A total of 29 additional recorded sites have been identified within the study area of the Proposed Project since the assessment for the 2018 planning application was undertaken. Of these, none are classed as National Monuments or further protected with a preservation order (PO). Four of the sites (AH 43, AH 44, AH 45 and AH 47) identified in this Section of the EIAR in the 2018 planning application have been updated to reflect their current status or distance from the Proposed Project.

Table 16.2: Updated List of Recorded Archaeological Heritage (AH) Sites Within the Study Area of the Proposed Project

AH No.	Townland	Classification	Distance from Proposed Project	Statutory Protection
AH 43	Drumnigh	Enclosure (Excavated since the 2018 planning application in 2018-2019)	c. 200m north-north-east (proposed outfall pipeline route (land based section))	RMP DU015-117
AH 44	Drumnigh	Ring ditch	c. 60m north (proposed outfall pipeline route (land based section)) (Access road no longer proposed at this location)	RMP DU015-119
AH 45	Drumnigh	Two Enclosures (DU015-135 added)	Om (partially within proposed outfall pipeline route (land based section))	RMP DU015-118/135
AH 47	Drumnigh	Enclosure (Excavated since the 2018 planning application in 2018)	c. 70m north (proposed outfall pipeline route (land based section))	RMP DU015-118
AH 53	Deanstown	Fulacht fiadh (Excavated in 2013)	To immediate north of proposed access route into Abbotstown	RMP DU013-147
AH 54	Cappoge	Enclosure	c. 105m north-west (proposed orbital sewer route)	RMP DU014-127
AH 55	Johnstown	Earthwork	c. 425m north-west (proposed orbital sewer route)	RMP DU014-138
AH 56	Balseskin	Enclosure	c. 200m south-east (proposed orbital sewer route)	RMP DU014-102
AH 57	Balseskin	Enclosure	c. 335m south-east (proposed orbital sewer route)	RMP DU014-124
AH 58	Dubber	Ring ditch	c. 325m south-south-east (proposed orbital sewer route)	RMP DU014-133
AH 59	Dubber	Ring ditch	c. 320m south-south-east (proposed orbital sewer route)	RMP DU014-132
AH 60	Dubber	Ring ditch	c. 340m south-east (proposed orbital sewer route)	RMP DU014-131
AH 61	Dubber	Ring ditch	c. 420m south-east (proposed orbital sewer route)	RMP DU014-130
AH 62	Dubber	Enclosure	c. 460m north (proposed orbital sewer route)	RMP DU014-104

AH No.	Townland	Classification	Distance from Proposed Project	Statutory Protection
AH 63	Merryfalls	Enclosure (Excavated in 2021)	c. 375m north (proposed orbital sewer route)	RMP DU014-123
AH 64	Merryfalls	Earthwork (Excavated in 2021)	c. 430m north (proposed orbital sewer route)	RMP DU014-139
AH 65	Ballystruan	Earthwork	c. 205m west-north-east (proposed orbital sewer route)	RMP DU014-136
AH 66	Baskin	Enclosure	c. 745m north-northwest (proposed WwTP)	RMP DU015-120
AH 67	Middletown	Enclosure	c. 180m north (proposed WwTP)	RMP DU015-146
AH 68	Middletown	Enclosure	c. 115m north (proposed WwTP)	RMP DU015-145
AH 69	Springhill	Ring ditch	c. 390m east (proposed outfall pipeline route (land based section)) c. 600m north-east (proposed WwTP)	RMP DU015-142
AH 70	Springhill	Ring ditch	c. 370m east (proposed outfall pipeline route (land based section)) c. 545m north-east (proposed WwTP)	RMP DU015-143
AH 71	Saintdoolaghs	Ring ditch	c. 355m east (proposed outfall pipeline route (land based section)) c. 500m north-east (proposed WwTP)	RMP DU015-140
AH 72	Saintdoolaghs	Ring ditch	c. 615m east (proposed WwTP)	RMP DU015-141
AH 73	Burgage	Enclosure	c. 585m east-south-east (proposed WwTP)	RMP DU015-139
AH 74	Clonshagh	Ring ditch	c. 660m east-south-east (proposed WwTP)	RMP DU015-128
AH 75	Belcamp	Ringfort (Excavated in 2021)	c. 1km east-south-east (proposed WwTP)	RMP DU015-033
AH 76	Belcamp	Ring ditch (Excavated in 2021)	c. 1km east-south-east (proposed WwTP)	RMP DU015-116
AH 77	Springhill	Ring ditch	c. 365m south (proposed outfall pipeline route (land based section))	RMP DU015-144
AH 78	Saintdoolaghs	Earthwork	c. 920m east-northeast (proposed WwTP) c. 405m west-south-west (proposed outfall pipeline route (land based section))	RMP DU015-147
AH 79	Saintdoolaghs	Earthwork	c. 255m west-south-west (proposed outfall pipeline route (land based section))	RMP DU015-148
AH 80	Maynetown	Earthwork	c. 10m south (proposed access to outfall pipeline route (land based section))	RMP DU015-152
AH 81	Middletown	Enclosure	c. 50m north-west (proposed WwTP)	RMP DU015-151

16.3.3 Recorded Shipwrecks

Three additional recorded shipwrecks within the study area of the Proposed Project have been added to the Shipwreck Inventory since the assessment for the 2018 planning application was undertaken (Department of Housing, Local Government and Heritage 2023). These are outlined in Table 16.3.

Table 16.3: Updated List of Recorded Shipwreck Sites Within the Study Area of the Proposed Project

Shipwreck Ref.	Name	Approximate Location	Date	Coordinates (If Known)
W11141	Unknown	Portmarnock Beach	Unknown	53.42870 (DD Lat) -6.12209 (DD Long)
W18576	Unknown	Portmarnock Beach (Identified during marine archaeological surveys carried out as part of the Proposed Project).	Unknown	53.41643 (DD Lat) -6.11682 (DD Long)
W18548	Unknown	Southern end of Portmarnock Beach	Unknown	53.40353 (DD Lat) -6.10652 (DD Long)

16.3.4 Stray Archaeological Finds

The topographical files held by the National Museum of Ireland (NMI) has not been updated to include any new archaeological finds since the 2018 planning application, and therefore, there are no changes to this Section of the EIAR in the 2018 planning application.

16.3.5 Recorded Built Heritage

The National Inventory of Architectural Heritage (NIAH) has not been updated since the 2018 planning application. The Record of Protected Structures (RPS) (included in the Fingal Development Plan 2023 - 2029 (FCC 2023)), has been published and one additional structure is now located in the study area as per Table 16.4.

Table 16.4: Updated List of Built Heritage Structures Recorded Within the Study Area of the Proposed Project

BH No.	Townland	Classification	Distance from Proposed Project	Statutory Protection
BtH 29	Sheephill	Late 20 th century former laboratory building	To immediate east of proposed access route into proposed Abbotstown pumping station	RPS 940

16.3.6 Areas of Archaeological Potential

A total of 21 Areas of Archaeological Potential (AAP) were identified in the 2018 planning application assessment. However, three of these sites have since been reclassified as recorded monuments (AAP 13 to AH 68, AAP 20 to AH 71, and AAP 14 to AH 81). The remaining 18 AAPs from the 2018 planning application remain unchanged.

16.3.7 Designed Landscapes

The NIAH Garden Survey has not been updated since the 2018 planning application, and therefore, there are no changes to this Section of the EIAR in the 2018 planning application.

16.3.8 Unrecorded Built Heritage

There have been no updates to the sources examined for the unrecorded built heritage (i.e. historical mapping of the study area, aerial photographic coverage and supporting documents) since the 2018 planning application, and therefore, there are no changes to this Section of the EIAR in the 2018 planning application.

16.3.9 Townlands

There have been no changes to townland boundaries since the 2018 planning application, and therefore, there are no changes to this Section of the EIAR in the 2018 planning application.

16.3.10 Previous Archaeological Fieldwork Carried Out Within the Study Area

A review of the updated Excavation Bulletins (2018 to 2023) and Dublin County Archaeological Archive was undertaken, and any archaeological fieldwork carried out within the study area, or new listings in the Excavation Bulletins since the original 2018 planning application was submitted, are outlined in Table 16.5.

Table 16.5: Updated List of Previous Archaeological Excavations Recorded Within the Study Area of the Proposed Project

Ex. Bulletin Ref.	Licence No.	Townland	Description
2013:220 & 2014:013	14E0406	Deanstown	A programme of archaeological testing and monitoring led to the identification of possible prehistoric features immediately north of an existing access road, to be utilised as part of the Proposed Project. Upon excavation, the site was recorded as an early Bronze Age fulacht fiadh (AH 53).
2014:935	14E0007	Drumnigh	Archaeological testing was carried out to the immediate north of the proposed outfall pipeline route (land based section) and included the sites of AH 47 and AH 43 (enclosures) and AH 44 (ring ditch). Testing confirmed the presence of the two enclosures and a ring ditch.
			Since the 2018 planning application, AH 47 and AH 43 were subsequently subject to archaeological excavation. AH 47 comprised a large early medieval enclosure and souterrain with earlier activity represented by a ring ditch and burnt mound activity. AH 43 comprised a large enclosure of probably prehistoric date. AH 44 has been preserved in situ as part of the housing development.
2015:562	15E0485	Abbotstown Sports Campus	Archaeological monitoring of the installation of a cross country running track was carried out within the demesne landscape associated with Abbotstown House, in and adjacent to the footprint of the Proposed Project. Nothing of significance was identified.
			This bulletin had not been updated to the resource prior to the publication of the 2018 planning application.
N/a	16R0010	Sheephill	A geophysical survey revealed the present of a large, oval enclosure c. 140m northwest of the Proposed Project, within the overall Abbotstown Sports Campus. The enclosure appears to also contain a ring ditch, suggesting a possible prehistoric date. No further archaeological investigations have taken place at this site.
2019:265	19E0636	Cappoge	In 2019 a series of ten test trenches were excavated to the immediate north-west of the Proposed Project, where it runs through the townland of Cappoge. Trenches included an assessment of enclosure AH 54. Testing confirmed the presence of shallow ditches enclosing the monument. The remains of a probable Bronze Age fulacht fiadh were also recorded although the location of same is not described in the summary.
2017:842/ 2021:238	17E0436	Coldwinters	Archaeological testing, targeting the location of a recorded ring ditch (AH 9) was carried out c. 245m north-west of the Proposed Project. The remains of a possible circular house were identified during testing along with a kiln. These features were later excavated under an extension to the licence and the kiln returned a medieval date, whereas a piece of blue glass was retrieved from the site of the house.
			The 2017 summary was not uploaded to the resource prior to the publication of the 2018 planning application.
2017:424	17E0285	Coldwinters	Archaeological testing was carried out at the site of a recorded enclosure (AH 10), c. 280m north-west of the Proposed Project. No evidence of the enclosure was identified (thought to actually be located a further 90m to the north-east). The partial remains of a cremated human skeleton were identified and recovered but no carbon 14 date could be secured.
			The 2017 summary was not uploaded to the resource prior to the publication of the 2018 planning application.
2019:079	19E0177	Merryfalls	A programme of archaeological testing was carried out c. 200m north of the Proposed Project as part of a logistics development.

Ex. Bulletin Ref.	Licence No.	Townland	Description
			Five archaeological areas were recorded in the site, including two enclosures (AH 63 and 64). The five sites were later subject to archaeological excavation as per the below issued licence:
			21E0501 Area 1, probable Bronze Age burnt mound.
			21E0502 Area 2, post medieval activity, initially thought at testing stage to represent a medieval enclosure/settlement area.
			21E503 Area 3, probable Bronze Age ring ditch (AH 64).
			21E504 Area 4, post medieval vernacular structure.
			21E0505 Area 5, truncated remains of an early medieval ringfort.
2015:016	13E0464	Stockhole	Archaeological testing was carried out within a greenfield, c. 250m north-west of the proposed WwTP. Nothing of archaeological significance was identified.
N/a	17E0084	Kinsaley	Archaeological testing was carried out within lands that form part of the demesne to Kinsaley House, to the immediate north of the Proposed Project. Scattered features of archaeological potential were identified, including pottery from the medieval, later medieval and post medieval periods.
			No summary was uploaded to the resource prior to the publication of the 2018 planning application.
N/a	19E0449	Portmarnock, Burrow, Maynetown, Stapolin	Archaeological testing was carried out as part of a proposed pipeline through a number of townlands to the north of the Mayne River. Testing included a portion of the footprint of the Proposed Project in Maynetown. One area of archaeological potential was identified, which comprised a section of the 'avenue' associated with recorded enclosure AH 28. The enclosure itself is preserved in-situ but the avenue extends from the feature to the east.
			No summary was uploaded to the resource prior to the publication of the 2018 planning application.
2022:255	22E0509	Maynetown	Archaeological testing was carried out at the site of AH 28 as well as to the immediate west and north of the site. Within the site a large pit filled with the remains of at least 10 human individuals, mixed with animal bone, was identified. Additional contemporary ditches were identified adjacent to the monument.
2020:185	20E0598	Maynetown, Drumnigh Portmarnock	Archaeological testing along the route of a haul road associated with development further to the north took place in 2020 and included a section of the pipeline route tested in 2019. The haul road crosses the footprint of the Proposed Project in Maynetown. No features of archaeological significance were identified.
2018:455	18E0409	Maynetown	Archaeological testing was carried out along the footprint of a proposed cycle way, which runs parallel to the coast in Maynetown and will pass over the outfall pipeline as it is tunneled below the coastal margins. No features of archaeological significance were identified.
			The 2018 summary was not uploaded to the resource prior to the publication of the 2018 planning application.

16.3.11 Summary of Geophysical Survey at Proposed Wastewater Treatment Plant

This Section of the EIAR in the 2018 planning application remains unchanged, due to the fact that the results of this type of survey do not change over the course of time.

16.3.12 Summary of Geophysical Survey Within the Proposed Orbital Sewer Route, Outfall Pipeline Route (Land Based Section) and Abbotstown Pumping Station

This Section of the EIAR in the 2018 planning application remains unchanged, due to the fact that the results of this type of survey do not change over the course of time.

16.3.13 Summary of Archaeological Testing at the Proposed Wastewater Treatment Plant

This Section of the EIAR in the 2018 planning application remains unchanged, due to the fact that the results of this type of survey do not change over the course of time.

16.3.14 Summary of Intertidal Survey

This Section of the EIAR in the 2018 planning application remains unchanged, due to the fact that the results of this type of survey do not change over the course of time.

16.3.15 Summary of Marine Archaeological Geophysical Survey

This Section of the EIAR in the 2018 planning application remains unchanged, due to the fact that the results of this type of survey do not change over the course of time.

16.3.16 Summary of Marine Archaeological Dive Surveys

This Section of the EIAR in the 2018 planning application remains unchanged, due to the fact that the results of this type of survey do not change over the course of time.

16.4 Appraisal Method Used for Assessment of Impacts

The impact assessment criteria in the updated EPA Guidelines (EPA 2022) remains unchanged from the criteria used in the previous Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA 2017). Therefore, the criteria outlined in this Section of the EIAR in the 2018 planning application remain unchanged.

16.5 Impact of the Proposed Project

16.5.1 Construction Phase

Recorded Archaeological Heritage Sites

Based on a review of the changes to existing recorded sites detailed in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the 2018 planning application and additional sites identified within the study area since 2018, no additional significant impacts are predicted upon the recorded monuments as a result of the construction of the Proposed Project. Table 16.6 outlines the predicted impacts for the updated list of recorded monuments (noting that AH 43, AH 44 and AH 47) were all previously included in this Chapter of the EIAR in the 2018 planning application, but are now updated following review of updated baseline information).

Table 16.6: Predicted Impacts on Updated List of Recorded Monuments

AH No.	Classification	Distance from Proposed Project	Impact Type	Significance of Effect
AH 43	Enclosure (Excavated since the 2018 planning application)	c. 200m north-north-east (proposed outfall pipeline route (land based section))	N/A (as now excavated) (previously Neutral)	N/A
AH 44	Ring ditch (preserved in-situ since the 2018 planning application)	c. 60m north (proposed outfall pipeline route (land based section))	Neutral (previously Direct)	N/A (previously Significant Negative)
AH 47	Enclosure (Excavated since the 2018 planning application)	c. 70m north (proposed outfall pipeline route (land based section))	N/A (as now excavated) (previously Neutral)	N/A
AH 53	Fulacht Fiadh (Excavated)	To immediate north of proposed access route into Abbotstown	N/A	N/A
AH 54	Enclosure	c. 105m north-west (proposed orbital sewer route)	Neutral	N/A
AH 55	Earthwork	c. 425m north-west (proposed orbital sewer route)	Neutral	N/A
AH 56	Enclosure	c. 200m south-east (proposed orbital sewer route)	Neutral	N/A
AH 57	Enclosure	c. 335m south-east (proposed orbital sewer route)	Neutral	N/A
AH 58	Ring ditch	c. 325m south-southeast (proposed orbital sewer route)	Neutral	N/A
AH 59	Ring ditch	c. 320m south-southeast (proposed orbital sewer route)	Neutral	N/A
AH 60	Ring ditch	c. 340m south-east (proposed orbital sewer route)	Neutral	N/A
AH 61	Ring ditch	c. 420m south-east (proposed orbital sewer route)	Neutral	N/A
AH 62	Enclosure	c. 460m north (proposed orbital sewer route)	Neutral	N/A
AH 63	Enclosure (Excavated)	c. 375m north (proposed orbital sewer route)	N/A	N/A
AH 64	Earthwork (Excavated)	c. 430m north (proposed orbital sewer route)	N/A	N/A
AH 65	Earthwork	c. 205m west-northeast (proposed orbital sewer route)	Neutral	N/A
AH 66	Enclosure	c. 745m north-northwest (proposed WwTP)	Neutral	N/A
AH 67	Enclosure	c. 180m north (proposed WwTP)	Indirect	Imperceptible negative
AH 68	Enclosure	c. 115m north (proposed WwTP)	Indirect	Imperceptible negative
AH 69	Ring ditch	c. 390m east (proposed outfall pipeline route (land based section)) c. 600m north-east (proposed WwTP)	Neutral	N/A
AH 70	Ring ditch	c. 370m east (proposed outfall pipeline route (land based section))	Neutral	N/A
AH 71	Ring ditch	c. 545m north-east (proposed WwTP) c. 355m east (proposed outfall pipeline route (land based section))	Neutral	N/A

AH No.	Classification	Distance from Proposed Project	Impact Type	Significance of Effect
		c. 500m north-east (proposed WwTP)		
AH 72	Ring ditch	c. 615m east (proposed WwTP)	Neutral	N/A
AH 73	Enclosure	c. 585m east-southeast (proposed WwTP)	Neutral	N/A
AH 74	Ring ditch	c. 660m east-southeast (proposed WwTP)	Neutral	N/A
AH 75	Ringfort (Excavated)	c. 1km east-southeast (proposed WwTP)	N/A	N/A
AH 76	Ring ditch (Excavated)	c. 1km east-southeast (proposed WwTP)	N/A	N/A
AH 77	Ring ditch	c. 365m south (proposed outfall pipeline route (land based section)) c. 920m east-northeast (proposed WwTP)	Neutral	N/A
AH 78	Earthwork	c. 405m west-southwest (proposed outfall pipeline route (land based section))	Neutral	N/A
AH 79	Earthwork	c. 255m west-southwest (proposed outfall pipeline route (land based section))	Neutral	N/A

Recorded Shipwrecks

In this Section of the EIAR in the 2018 planning application, it was outlined that one shipwreck was identified during the course of marine archaeological investigations for the Proposed Project. This comprised a previously unrecorded timber wreck (thought to possess metal fittings) that is submerged on Portmarnock Beach. This previously unrecorded wreck has been added to the Shipwreck Inventory as 'W18576' (Department of Housing, Local Government and Heritage 2023) since the original 2018 planning application submission.

However, this does not have any impact on the outcome of the impact assessment undertaken in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application which identified no potential for a negative impact as a result of the Proposed Project on this shipwreck, as the proposed outfall pipeline route (marine section) will still be tunnelled at this location.

In addition, neither of the other two newly identified shipwreck sites ('W11141' and 'W18548') will be impacted by the proposed outfall pipeline route (marine section) as it will be tunnelled at these locations.

As outlined in this Section of the EIAR in the 2018 planning application, it remains possible that archaeological deposits or features associated with shipwrecks remain buried at deeper levels beneath the current seabed. Dredging associated with the laying of the proposed outfall pipeline route (marine section) has the potential, directly and negatively, to impact these potential remains to a Significant or Profound degree.

Recorded Built Heritage

One additional structure, which is included in the next RPS (Fingal Development Plan 2023-2029 (FCC 2023)) is located adjacent to the proposed access road to the proposed Abbotstown pumping station in the townland of Sheephill (BtH 29). However, the proposed access road is an existing access road, and as such, no impacts are predicted upon this structure as a result of the construction of the Proposed Project.

Areas of Archaeological Potential

The impact assessment in this Section of the EIAR in the 2018 planning application remains unchanged, with the exception that AAP 13 and AAP 20 which were both previously listed have been reclassified as recorded monuments, and are now referred to as AH 68 and AH 71, respectively.

Designed Landscapes

As there have been no changes to the Designed Landscapes, as presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no changes to the impacts outlined in this Section of the EIAR in the 2018 planning application.

Unrecorded Built Heritage Sites

As there have been no changes to Unrecorded Built Heritage Sites, as presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no changes to the impacts outlined in this Section of the EIAR in the 2018 planning application.

Townland Boundaries

As there have been no changes to Townland Boundaries, as presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no changes to the impacts outlined in this Section of the EIAR in the 2018 planning application.

Additional Potential Impacts

As outlined in this Section of the EIAR in the 2018 planning application, it remains possible that sites or features of archaeological potential remain outside of the areas already subject to detailed geophysical survey and archaeological testing. As such, it is possible that ground disturbances associated with the construction of the Proposed Project have the potential to directly and negatively impact archaeological features and / or deposits that have the potential to exist beneath the existing ground level with no surface expression.

16.5.2 Operational Phase

Recorded Archaeological Heritage Sites

The following updated impacts of recorded archaeological heritage sites have been identified as part of the assessment carried out for this Chapter of the EIAR Addendum. However, none of the impacts presented in Table 16.7 are significant.

Table 16.7: Updated Predicted Impacts on Recorded Monuments – Proposed Wastewater Treatment Plant Site

AH No.	Classification	Distance from Proposed Wastewater Treatment Plant	Impact Type	Impact Significance
AH 67	Enclosure	c. 180m north	Indirect	Slight Negative
AH 68	Enclosure	c. 115m north	Indirect	Slight Negative
AH 69	Ring ditch	c. 600m north-east	Neutral	N/A
AH 70	Ring ditch	c. 545m north-east	Neutral	N/A
AH 71	Ring ditch	c. 500m north-east	Neutral	N/A
AH 72	Ring ditch	c. 615m east	Neutral	N/A
AH 73	Enclosure	c. 585m east to south-east	Neutral	N/A
AH 74	Ring ditch	c. 660m east to south-east	Neutral	N/A
AH 75	Ringfort (Excavated)	c. 1km east to south-east	N/A	N/A
AH 76	Ring ditch (Excavated)	c. 1km east to south-east	N/A	N/A
AH 77	Ring ditch	c. 920m east to north-east	Neutral	N/A

Recorded Shipwrecks

As outlined in this Section of the EIAR in the 2018 planning application, there continues to be no impacts predicted upon any recorded shipwreck sites as a result of the operation of the Proposed Project.

Recorded Built Heritage

The impact assessment in this Section of the EIAR in the 2018 planning application remains unchanged from, due to the fact that the Proposed Project has not changed in relation to the structures recorded in the study area.

Areas of Archaeological Potential

The impact assessment in this Section of the EIAR in the 2018 planning application remains unchanged, with the exception that AAP 13 and AAP 14 which were both listed in this Section of the EIAR in the 2018 planning application have been reclassified as recorded monuments, and are now referred to as AH 68 and AH 81, respectively.

Designed Landscapes

As there have been no changes to the Designed Landscapes, as presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no changes to the impacts outlined in this Section of the EIAR in the 2018 planning application.

Unrecorded Built Heritage Sites

As there have been no changes to Unrecorded Built Heritage Sites, as presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no changes to the impacts outlined in this Section of the EIAR in the 2018 planning application.

Townland Boundaries

As there have been no changes to Townland Boundaries, as presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no changes to the impacts outlined in this Section of the EIAR in the 2018 planning application.

16.6 Mitigation Measures

16.6.1 Construction Phase

Recorded Archaeological Heritage Sites

There have been no changes to this Section of the EIAR in the 2018 planning application, with the exception that AH 44 will no longer be subject to a direct impact as it has been preserved in-situ by another development, and as such, no archaeological mitigation is required for this site.

The mitigation measures listed in this Section of the EIAR in the 2018 planning application will be implemented in full for all other identified features.

Recorded Shipwrecks

As no new potential impacts or changes to existing impacts on recorded shipwrecks were identified as part of the assessment carried out for this Addendum Chapter, above those already presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no requirements to update the mitigation measures presented in this Section of the EIAR in the 2018 planning application and these mitigation measures will be implemented in full.

Recorded Built Heritage

As no new potential impacts or changes to existing impacts on Recorded Built Heritage sites were identified as part of the assessment carried out for this Addendum Chapter, above those already presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no requirements to update the mitigation measures presented in this Section of the EIAR in the 2018 planning application and these mitigation measures will be implemented in full.

Areas of Archaeological Potential

As no new potential impacts or changes to existing impacts on AAPs were identified as part of the assessment carried out for this Addendum Chapter, above those already presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no requirements to update the mitigation measures presented in this Section of the EIAR in the 2018 planning application and these mitigation measures will be implemented in full.

Designed Landscapes

As no new potential impacts or changes to existing impacts on designed landscapes were identified as part of the assessment carried out for this Addendum Chapter, above those already presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no requirements to update the mitigation measures presented in this Section of the EIAR in the 2018 planning application and these mitigation measures will be implemented in full.

<u>Unrecorded Built Heritage Sites</u>

As no new potential impacts or changes to existing impacts on Unrecorded Built Heritage sites were identified as part of the assessment carried out for this Addendum Chapter, above those already presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no requirements to update the mitigation measures presented in this Section of the EIAR in the 2018 planning application and these mitigation measures will be implemented in full.

Townland Boundaries

As no new potential impacts or changes to existing impacts on townland boundaries were identified as part of the assessment carried out for this Addendum Chapter, above those already presented in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, there are no requirements to update the mitigation measures presented in this Section of the EIAR in the 2018 planning application and these mitigation measures will be implemented in full.

Additional Mitigation

The mitigation measures presented in this Section of the EIAR in the 2018 planning application remain valid and robust and will be implemented as previously outlined. It is noted that the former Department of Cultural Heritage and the Gaeltacht referred to in this Section of the EIAR in the 2018 planning application, is now referred to as the Department of Housing, Local Government and Heritage.

16.6.2 Operational Phase

Recorded Archaeological Heritage Sites

Following this updated Addendum assessment, it remains the case that no mitigation is deemed to be necessary in association with recorded monuments during the operation of the Proposed Project.

Recorded Shipwrecks

Following this updated Addendum assessment, it remains the case that no mitigation is deemed to be necessary in association with recorded shipwrecks during the operation of the Proposed Project.

Recorded Built Heritage

Following this updated Addendum assessment, it remains the case that no mitigation is deemed to be necessary in association with recorded built heritage sites during the operation of the Proposed Project.

Areas of Archaeological Potential

Following this updated Addendum assessment, it remains the case that no mitigation is deemed to be necessary in association with AAPs during the operation of the Proposed Project.

Designed Landscapes

Following consideration of the updates to the Proposed Project outlined in Section 16.1, and the changes to the baseline environment outlined in Section 16.3, the mitigation measures presented in this Section of the EIAR in the 2018 planning application remain unchanged and will be implemented in full, as previously outlined.

Unrecorded Built Heritage Sites

Following consideration of the updates to the Proposed Project outlined in Section 16.1, and the changes to the baseline environment outlined in Section 16.3, the mitigation measures presented in this Section of the EIAR in the 2018 planning application remain unchanged and will be implemented in full, as previously outlined.

Townland Boundaries

Following this updated Addendum assessment, it remains the case that no mitigation is deemed to be necessary in association with townland boundaries during the operation of the Proposed Project.

16.7 Residual Impacts

Following consideration of the updates to the Proposed Project, as outlined in Section 16.1, the changes to the baseline environment outlined in Section 16.3, and based on the confirmation that mitigation measures to be implemented will remain as outlined in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application, it remains that there will be no significant residual negative impacts upon the archaeological, architectural and cultural heritage resource as a result of the Proposed Project.

16.8 Cumulative Impacts

An updated cumulative impact assessment has been completed as part of this EIAR Addendum. Please refer to Chapter 23A (Cumulative Impacts and Environmental Interactions) in Volume 3A Part A of this EIAR Addendum.

No significant cumulative impacts upon the archaeological, architectural and cultural heritage resource have been identified as part of the updated assessment completed for Chapter 23A (Cumulative Impacts and Environmental Interactions) in Volume 3A Part A of this EIAR Addendum.

16.9 Difficulties Encountered in Compiling Required Information

No difficulties were encountered in compiling information for this Addendum Chapter.

16.10 Conclusion

This Addendum Chapter has considered all updates to elements of the Proposed Project, updates to the baseline environment, and updates to guidance and reference material since the 2018 planning application submission. A number of new recorded archaeological sites have been identified within the study area of the Proposed Project since the publication of the 2018 assessment, as outlined throughout this Addendum Chapter. This is mostly due to exceptionally good weather conditions in the summer of 2018, which led to the identification of multiple new archaeological sites (as cropmarks) within County Dublin and across the country. None of the newly identified sites are located within the footprint of the Proposed Project and two of the previously identified AAP sites have now been reclassified as recorded monuments. A significant number of archaeological investigations have been carried out since 2018, some of which involved the preservation by record of recorded archaeological sites in the study area. None of these investigations were carried out within the footprint of the Proposed Project. Similarly, three previously unrecorded shipwreck sites have been added to the Shipwreck Inventory, one of which was identified during an intertidal assessment carried out for the 2018 planning application for this Proposed Project. This and the other two wreck sites now included on the Shipwreck Inventory will not be affected by the Proposed Project as the proposed outfall pipeline route (marine section) will be tunnelled in these locations.

Overall, the impact assessment and mitigation measures detailed in Chapter 16 (Archaeological, Architectural and Cultural Heritage) in Volume 3 Part A of the EIAR in the 2018 planning application remain unchanged, with the exception that there will no longer be any direct negative impacts on a recorded ring ditch site (AH 44).

16.11 References

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Directives and Legislation

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