

13 Cultural Heritage

13.1 Introduction

Cultural Heritage is defined by UNESCO as “the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations” (www.unesco.org/new/en/cairo/culture/tangible-cultural-heritage). In terms of the present project, Cultural Heritage is assumed to include all humanly created features on the landscape, including portable artefacts, which might reflect the prehistoric, historic, architectural, engineering and/or social history of the area.

The potential impact on the Cultural Heritage Resource of the subject development areas and immediate environs, together with ancillary aspects of the development (e.g. transport routes) has been assessed and, where required, suitable mitigation strategies to reduce/negate such potential impacts are suggested. The proposed development comprises the continued operation of West Offaly Power (WOP) Station and Ash Disposal Facility (ADF) and the proposed transition to biomass.

13.2 Methodology

The Cultural Heritage study consists of the results of the paper survey and the field inspection. In addition, limited monitoring of geotechnical site investigations (Trial Pit excavations) was also undertaken.

13.2.1 Paper Survey

The Paper Survey comprised documentary, cartographic and aerial photographic research using the following principal sources:

- Record of Monuments and Places – Cos. Offaly and Roscommon (RMP)
- Sites and Monuments Record of the Archaeological Survey of Ireland (SMR) - www.archaeology.ie
- Topographical Files of the National Museum of Ireland
- Annual Archaeological Excavations Bulletin – www.excavations.ie
- Aerial Photographic Archive of the Geological Survey of Ireland
- Cartographic Archive of the Ordnance Survey of Ireland – www.osi.ie
- National Inventory of Architectural Heritage – Survey of the Architectural Heritage of Counties Offaly and Roscommon (NIAH) – www.buildingsofireland.ie
- Documentary and cartographic sources in Offaly County Library (see **Section 13.9**)

- Offaly County Development Plan 2014-2020 (OCDP)
- Roscommon County Development Plan 2014-2020 (RCDP)
- Placenames Commission – www.logainm.ie

In addition, the following reports were also consulted:

- *Proposed Power Station at Shannonbridge and Ash Repository at Derrylaghan, Co. Offaly – EIS prepared by ESBI, February 2001 (Cultural Heritage Chapter prepared by Byrne Mullins & Associates)*
- *Blackwater & Boora Group of Bogs: Desk-based Reassessment Survey. Report prepared for Bord na Móna by Nicola Rohan, ADS Ltd, April 2009.*
- *Draft Report on 2009 Reassessment Field Survey. Blackwater & Boora Group of Bogs: Cos. Offaly, Galway, Westmeath & Roscommon. Report prepared for Bord na Móna by Nicola Rohan, ADS Ltd, December 2009.*
- *Code of Practice between the Department of Arts, Heritage and the Gaeltacht, the National Museum of Ireland and Bord na Móna.*

13.2.2 Field Inspection

From the preceding paper survey, a list of cultural heritage sites/sites of cultural heritage potential was compiled for inspection. The subject lands (WOP Station & ADF Sites) and a c. 1000m area surrounding the boundaries of such lands was assessed for the presence of archaeological monuments by reference to map and aerial photographic sources. Field surveys of the subject lands were undertaken in January and February 2017. This included a surface reconnaissance survey of the exposed peat surfaces in the area of the existing ADF site, together with an examination of the exposed section of open drains, cut through in-situ remnant peat deposits, as well as the exposed faces of areas of previous cut-way/harvesting. However, in many cases the drains were partially overgrown as were a number of surface areas.

13.2.3 Monitoring of Geotechnical Site Investigations

Monitoring of geotechnical site investigations (Trial Pit excavations) was undertaken in late January and early February 2017. In terms of the WOP Station, this focused on the existing disused Ash Depository in the north-western area of the overall facility lands; as this was the only area of the Site Investigations that not had been subject to previous archaeological monitoring (see **Section 13.4.2.4**); all trial pits located associated with the proposed extension to the ADF site were monitored. The results of the monitoring are discussed below in **Section 13.4.2.5**.

13.3 Study Area

13.3.1 West Offaly Power (WOP) Station and Ash Disposal Facility (ADF)

The Cultural Heritage study comprises the results of a survey and evaluation of selected sites of archaeological, architectural and historical potential within, and up to 1km surrounding the subject proposed development areas. The proposed development areas comprises the WOP Station Site at Shannonbridge and the associated ADF at Clonfinlough/ Leitra/Clondelara/Derrylahan as shown **Figure 1.1** in **Chapter 1** of this EIAR.

The overall WOP Station site is located to the south of the village of Shannonbridge and to the east of the River Shannon. The existing facility comprises a power station and associated infrastructure operated by ESB, together with peat delivery and storage facility operated by Bord na Mona on behalf of ESB. The latter has an associated rail line connecting the facility to the Blackwater Bog peat harvesting area and Ash Disposal facility. The vehicular accesses to the WOP facility are from dedicated entrances off the R357 Regional Road. A former Ash Disposal area is located on the western side of the road leading south from Shannonbridge village, comprising an area of artificially raised ground covered in grass, with occasional trees and bushes. The general area is characterised by extensive raised bogs divided by eskers and isolated drumlins. The immediate area around the WOP facility is generally one of relatively poor pastureland, subdivided into small fields, with localised low-lying marshy areas.

The existing ADF is located in the townlands of Clonfinlough Leitra, Clondelara and Derrylahan c. 5.5km to the east-north-east of WOP Station facility. It is accessed by rail and by means of a rough vehicular track which runs adjacent the rail line. It included three completed ash disposal cells, capped with peat and grass, together with one operational cell and an additional cell partially lined and in use, together with associated embankments. The Gowlan River is located to the general west of the site. The general area surrounding the ADF is characterised by extensive cut-over bogs, divided and interspersed by eskers and isolated drumlins, which form a chain of bogland which extends, on both sides of the River Shannon, from the town of Athlone to the north to beyond the town of Banagher to the south. The area of the subject development is within the Blackwater Bog System and harvesting in the immediate area of the facility has ceased. The surface is covered in loose peat and undergrowth, including trees and bushes, and the drains are largely clear of growth.

13.4 Receiving Environment

13.4.1 General Historical Background

13.4.1.1 Shannonbridge – Historical Background

The WOP Station is located in the townland of Cloniffeen, in the civil parish of Clonmacnoise and in the barony of Garrycastle (O.S. 6" Map – Offaly Sheet 13). The name Cloniffeen derives from the Irish *Cluain Iffin* – the ‘St. Aifin’s lawn/meadow/pasture’ (Placenames Commission – www.logainm.ie).

The village of Shannonbridge gets its name from the bridge connecting counties Offaly and Roscommon and the village is located in the townlands of Raghra and Cloniff. Raghra is generally considered the old name for the village but ‘Shannonbridge’ was adopted after the construction of the existing bridge in 1757 (Site CH-3 below). There is a local tradition that a ‘village’ settlement was established by military forces in the vicinity of Temple Duff graveyard (Site CH-1), to the south of the Generating Facility before the present village was settled (www.shannonbridge.com/history).

A manuscript in the RIA (M.S. G. 1. 2) by a Col. Roy on a short tour of Ireland, which is undated but probably 18th century, says that there are several fords on the River Shannon between Athlone and Banagher, but that roads do not lead to them, except to Raghra (Shannonbridge) and Ballaghna, two miles below the Seven Churches (Clonmacnoise). Ballaghna is not identified, but it may be the ford at Cloonburren. The Shannonbridge fording point along a route from Mac Coughlan’s country to Athlone was described by Matthew de Renzy in 1620 as ‘a fowle and daungerous waye betwixt it and Belanasloye [Ballinasloe] westward through wods [woods] and bogs and likewise to the north-east and north-west whether [you] would passe through Cluainmacnoise or to Delvin Mc Coghlan’. De Renzy goes on to state that ‘This [castle and lands] (Site CH-2) must needs be planted also with undertakers in regard it lyeth upon the Shenan [Shannon] and that there is a ford (Site CH-4) over that river weare in somer [summer] time foote men may wade over.’ (Mac Cuarta, B. 1987, 178-9). In 1622 the commissioners appointed by the English Crown for the Plantation of Kings County granted Thomas Rotheram the lands and ownership of the fishing weirs of the town and lands of Raghra.

In 1580 the defence of crossing points on the River Shannon was being considered in conjunction with a possible programme of fortifications of the principal harbours and estuaries on the Irish coast. Among the areas recommended was a site to the south of Clonmacnoise – possibly Raghra, now Shannonbridge, where there was a ford crossing the river (Kerrigan, 1998, 397). A military garrison was subsequently established at Raghra, possibly on the site of a former tower house (Site CH-2). This was captured by Irish forces in 1651 during the Confederate Wars (Kerrigan, 1995, 96). The area was under the control of Patrick Sarsfield in 1690-91, during the Williamite Wars, when the area of Raghra was fortified and, presumably, entrenchments made covering the ford on the river. A bridge was subsequently built to cross the river and this was replaced in 1757, from which the name Shannonbridge derives. The name Shannonbridge is utilised on Taylor & Skinner’s *Maps of the*

Roads of Ireland, Surveyed 1777 (**Figure 13.1**) which indicates structural works on both side of the River Shannon.



Figure 13-1 Extract from Taylor & Skinner’s Maps of the Roads of Ireland, Surveyed 1777

Following a recommencement of wars with France in 1803 and with the associated potential for an invasion of Ireland by French forces, plans were reactivated for coastal and Shannon defences. Plans and estimates were prepared for works on the Shannon, including Shannonbridge, and by May 1804 fieldworks, batteries or redoubts with earthwork parapets, protected by ditches and timber palisades, were in place at locations along the river. The defences at Shannonbridge at that time comprised (after Kerrigan, 1998, 423):

		12 Pounders	8" Howitzers
Works:	A	3	1
	B	4	2
Batteries:	1	3	1
	2	2	--
	3	2	--

Two twelve-pounder guns, not attached to a battery, were held in reserve. A description of the Shannon fortifications in December 1805, prepared by Lt. Colonel Fisher of the Royal Engineers, notes that the stone bridge at Shannonbridge had been on a ford, so that the possible destruction of the bridge would not necessarily prevent an enemy force crossing the river at that location. Two enclosed works were built on the high ground on the west (Roscommon) bank and these included temporary guardhouses and magazines. The three batteries, one on the island north

of the bridge and two on the east (Shannonbridge) bank, south of the bridge, also had temporary guardhouses and magazines, and were enclosed to the rear by timber palisades. The expense of these works was noted as just over £2,000, with smaller sums for repairs and future maintenance. A plan of the defensive works, dating to 1810, is illustrated in **Figure 13.2**.

These fortifications (CH-16) were subsequently replaced by permanent defences, work on which possibly commenced in 1811-12. These were a tête-de-point artillery fortification, unique in Ireland or Britain. The fortifications were laid out on the west (Roscommon) bank on high ground, in an almost symmetrical arrangement on the axis of the bridge – **Figure 13.3**. Redoubts A & B were demolished and a new military barrack was built on the site of Redoubt A. The barrack was separated from a 300m man-made slope (glacis) by a 7m defensive ditch, into which projected a caponniere. Artillery comprised four 24-pounder guns, with a range of over 2km, aimed towards the west and covering the glacis and beyond. On the north side was a small arms battery for infantrymen armed with muskets. South of the modern road is a defensible three-storey barrack – now 'The Old Fort Restaurant'. A curtain wall joined the three main structures, and included an archway, closed by a strong wooden door, which accommodated the Shannonbridge to Ballinasloe Road. This was demolished in the 1950s to accommodate road-widening works. On the east (Shannonbridge) bank, the previous batteries appear to have been abandoned (McInerney, 2006, 115) and a barrack was constructed on the south side of Main Street (CH-2). This building was demolished in 1974, but the perimeter wall of the barrack yard still survives. South of this wall was a high-walled enclosure which contained a powder magazine and two storage buildings arranged in a symmetrical manner (**Figure 13.3**). The extensive bridgehead fortifications at Shannonbridge, constructed after 1810 and evidently completed by 1817, indicate how seriously the possibility of an enemy landing on the west coast of Ireland was taken. Shannonbridge was clearly considered a key strategic point on the Shannon in preventing an invasion force marching on Dublin.



Figure 13.2 Military Works at Shannonbridge – 1810

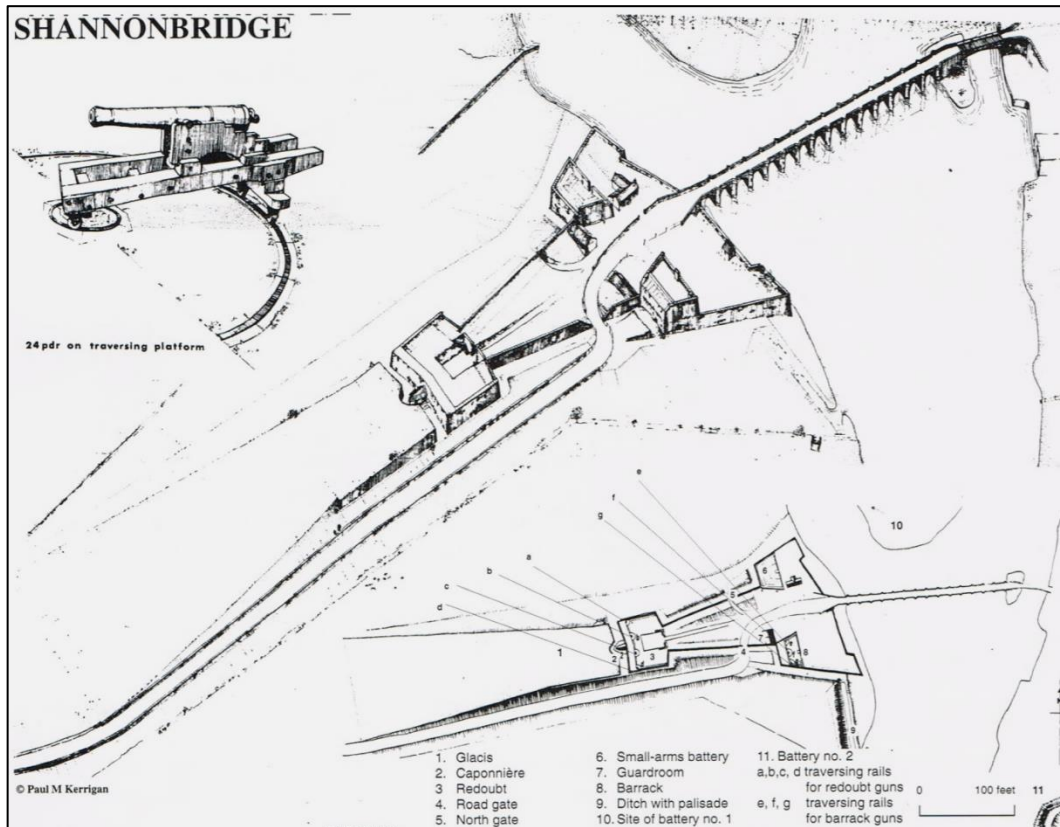


Figure 13.3 Shannonbridge Fortifications (Site CH-5) – axonometric view

(From Kerrigan, 1995, 226)

Lewis (1837) noted that the parish of Clonmacnoise, including the village of Shannonbridge, had a population of 4,446 and that it was also known as 'Seven Churches'. He further noted that the parish formed part of the county of Westmeath until 1688, when, through the influence of the bishop of Meath, it was separated from the barony of Clonlonan, in that county and that the parish was "situated on the east bank of the river Shannon; nearly two-thirds of the surface are bog, part of it being a continuation of the bog of Allen; there are many hills, the upper portions of which afford tolerable pasture; on the banks of the river is some good meadow land; and the valleys, which are mostly in tillage, afford excellent crops of corn, although the soil is rather light, and in some parts sandy. Nearly in the centre is a lake of about 90 acres, called Clonfanlagh, encompassed on the north and east by hills, and on the opposite sides by an extensive bog, and abounding with pike and perch. The substratum is limestone, which is quarried both for building and for agricultural purposes. The river Shannon is navigable hence to Limerick and Athlone". He describes the village of Shannonbridge as containing 559 inhabitants and that it "is situated on the river Shannon, and derives its name and origin from a bridge which here crosses the river and connects King's county with that of Roscommon. The bridge is a handsome structure of stone, 140 yards in length; it consists of sixteen arches, exclusive of two over a parallel canal, the roadway being level throughout. At the western or Roscommon end is a tower and battery forming a tete-du-pont, with an artillery barrack for 2 officers and 44 men, and a magazine annexed. On a rising ground in the vicinity is an advanced redoubt. The village is a station of the

constabulary police, and contains one of the two R. C. chapels belonging to the district, and the parochial school”.

The topographical layout of the village of Shannonbridge and immediate environs in 1838 are illustrated in **Figure 13.4**, which indicates that the lands in the immediate environs, on the periphery of extensive bogs, comprised a large number of small fields. The Ordnance Survey Namebooks of 1838 note that the townland of Cloniffeen was held under deed fee forever by Co. L’Estrange and that it contained about 6 acres of bog and that the remainder was in a ‘good state of cultivation’.

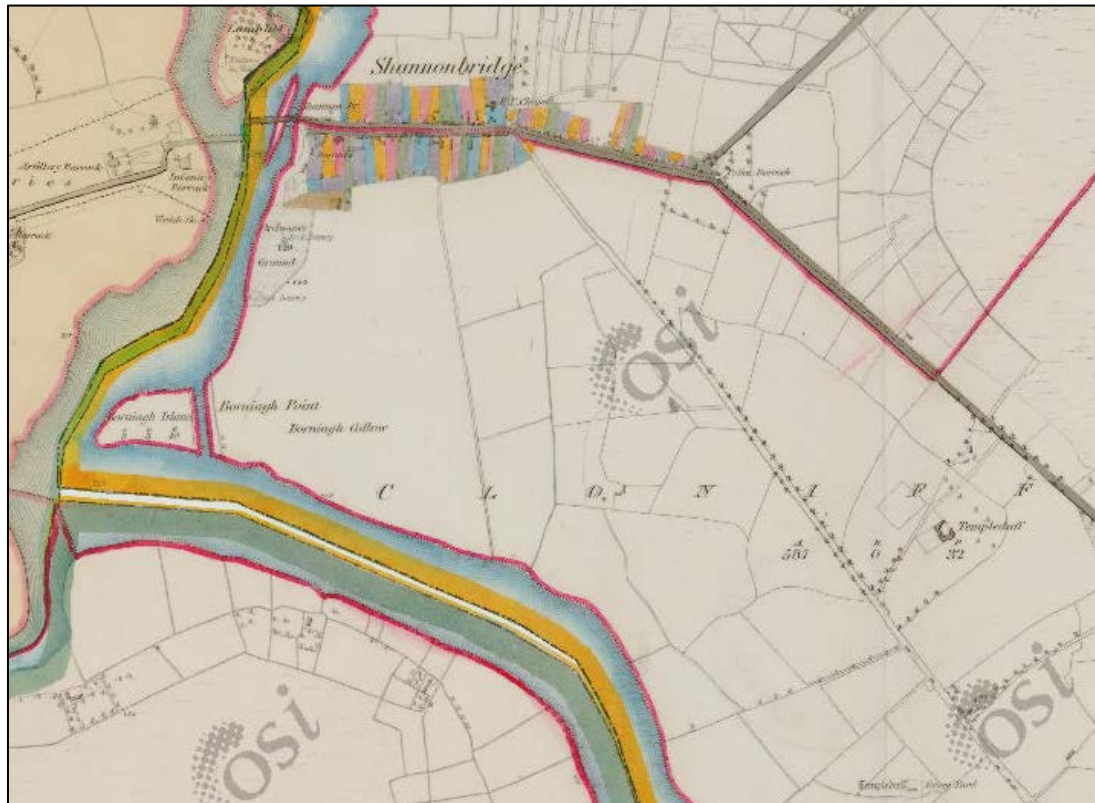


Figure 13.4 Extract from O.S. 6-inch map of 1838 – Offaly Sheet 13 (Shannonbridge and Environs)

13.4.1.2 Generation Plant – Historical Background

The topographical nature of the lands in 1838 superimposed on a modern aerial photograph and on which WOP is now located is further illustrated in **Figure 13.8**. This illustrates that the overall extent of the facility was subdivided into a number of agricultural fields, bounded to the east by a tree-lined road/track and contained two structures in the area of the present generating station. Griffith’s Valuation of 1855 notes that the on which the generation facility is located were largely owned, at that time, by Lord Ashbrook, and plots were leased by John Charters, James Caulfield, Mary Lily, John Nolan and John Molloy; the southern areas of the facility were owned by John Nolan and Francis Reddy and were leased by Hannah Mitchell and Christopher McArdle.



Figure 13.5 1838 O.S. Map superimposed on Modern Aerial Photograph showing extent of Generating Facility

The topographical nature of the lands in 1912 on which the generating facility is now located is illustrated in **Figure 13.6**, superimposed on a modern aerial photograph. This indicates that very little change to the lands had occurred since 1838, except for the subdivision of the northernmost field. In addition, it appears to indicate that many of the field boundaries were formed by open drains.

The original Shannonbridge Power Station was commissioned in 1964 (Plate 13.1). At the time it was built, Shannonbridge was the largest of five peat stations in Ireland. The station used three generating units to produce electricity, each with its own boiler, turbine and generator. Units 1 and 2 were commissioned in 1965 and 1976 respectively, each with a capacity of 40MW, while a more modern unit 3 was commissioned in 1982 at a capacity of 45MW. The Station was replaced by the existing WOP Station, which opened in 2005.



Figure 13.6 1912 O.S. Map superimposed on Modern Aerial Photograph showing extent of Generating Facility

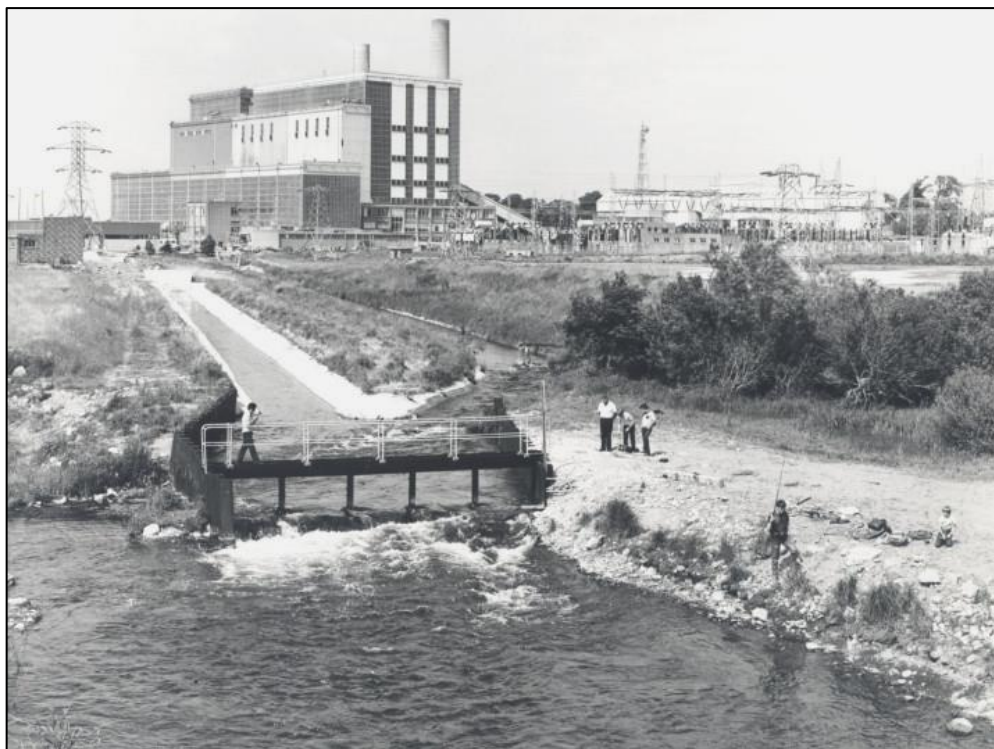


Plate 13.1 View of Shannonbridge Power Station in 1970s

13.4.1.3 Ash Disposal Facility (ADF)

The existing ADF and its proposed extension is located in the townlands of Clonfinlough, Leitra, Clondelara and Derrylahan, in the civil parish of Clonmacnoise and in the barony of Garrycastle (O.S. 6" Map – Offaly Sheet 6). The name Clonfinlough derives from the Irish *Cluain Fionnlocha* – the ‘meadow/pasture of the lake’; Leitra derives from *Liataire* – ‘grey (oak-) wood’; Clondelara derives from *Cluain Dá Lára* – ‘lawn/meadow/pasture of the two mares’ while Derrylahan derives from *Doire Leathan* – the ‘broad/wide oak wood’ (Placenames Commission – www.logainm.ie).

The topographical nature of the lands in 1838 on which the ADF site is now located is illustrated in **Figure 13.7**, with the townland boundaries marked in red. There are no structures of field boundaries indicated on the bog-lands. The Ordnance Survey Namebooks of 1838 note that the townland of Clonfinlough was held under deed fee forever by Robert Lawder, Esq, and that nearly two-thirds comprised bog, with the remainder ‘hilly and of bad quality’. Griffith’s Valuation of 1855 notes that the ADF lands within Clonfinlough formed part of the landholding of Robert Lawder and that a strip of land running along the southern bank of the Gowlan River was leased by Kieran Condon. This strip of land is illustrated on the 1912 O. S. map – **Figure 13.8** – which also illustrates that the site contained no structures. Griffith’s Valuation notes that the section of the ADF lands within Derrylahan formed part of the landholding of William L’Estrange and were leased by Patrick, Edward and James McDonnell.



Figure 13.7 1838 O.S. Map superimposed on Modern Aerial Photograph showing extent of existing ADF Site



Figure 13.8 1912 O.S. Map superimposed on Modern Aerial Photograph showing extent of existing ADF Site

The ADF site is located on a former peat harvest area in the Blackwater Group of bogs. Peat harvesting on the Blackwater Group of Bogs commenced in the late 1950s, originally for horticultural use but subsequently milled peat was produced to fuel the original Shannonbridge Power Station, which was commissioned in 1964. Johnson (1997, 135) notes that a 3ft gauge railway line was opened in the Blackwater Group of Bogs in 1959 and was connected to the Garryduff bog system, on the western side of the River Shannon by a viaduct (Shannon Viaduct) constructed in 1965 to the south of Shannonbridge Power Station. In addition, the railway line was extended to the power station for the transportation of milled peat. This is still in use. In addition, the line is also used to transport ash to the ADF Site (Plate 13.2). The Blackwater Group was subsequently connected to the Boora Group in 1995. The Clonmacnoise and West Offaly Railway, which opened in 1991, was a tourist attraction which conveyed visitors over a 9-km line running through Blackwater Bog, by means of a small diesel locomotive and a single 53-seat passenger coach (Plate 13.3). It was closed permanently at the end of 2008 as operation of the line was interfering with the heavy flow of peat traffic bound for the WOP Station.



Plate 13.2 Rail Transport System adjacent ADF Site



Plate 13.3 Clonmacnoise & West Offaly Railway – Engine & Carriage

13.4.2 Archaeological Heritage

Archaeology is the study of past societies through their material remains and the landscapes they lived in. “The archaeological heritage consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence” (DoAHG 1999, p9).

13.4.2.1 Statutory Protections

The statutory and administrative framework of development control in zones of archaeological potential or in proximity to recorded monuments has two main elements:

- (a) Archaeological preservation and licensing under the National Monuments Acts and
- (b) Development plans and planning applications under the Planning Acts.

- **National Monuments Acts 1930 - 2004**

Section 12 (1) of the National Monuments (Amendment) Act, 1994 provides that the Minister for the Environment, Heritage and Local Government shall establish and maintain a record of monuments and places where the Minister believes there are monuments, such record to be comprised of a list of monuments and relevant places and a map or maps showing each monument and relevant place in respect to each county of the State. This is referred to as the 'Record of Monuments and Places' (RMP), and monuments entered into it are referred to as 'Recorded Monuments'.

Section 12(3) of the National Monuments (Amendment) Act 1994 provides for the protection of monuments and places in the record, stating that

“When the owner or occupier (not being the Minister) of a monument or place which has been recorded under subsection (1) of this section or any person proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such monument or place, he shall give notice in writing of his proposal to carry out the work to the Minister and shall not, except in the case of urgent necessity and with the consent of the Minister, commence work for a period of two months after having given the notice.

- **Offaly County Development Plan 2014-2020**

The following relevant Archaeological Heritage Policies are set out in Section 7.19 of the Plan:

AAHP-04 It is Council policy to apply the following principles to the archaeological heritage:

- To facilitate appropriate guidance in relation to the protection of the county's archaeological heritage.
- To protect and enhance archaeological monuments and their settings and Zones of Archaeological Potential.

AAHP-08 It is Council policy to ensure that development in the immediate vicinity of a recorded monument is sensitively sited and designed so that it does not significantly detract from the monument. Where upstanding remains exist, a visual impact assessment may be required.

AAHP-09 It is Council policy to inform and seek guidance from the National Museum of Ireland if an unrecorded archaeological object is discovered, or the National Monuments Service of the Department of Arts, Heritage and the Gaeltacht in the case of the discovery of an unrecorded archaeological site, in accordance with National Monuments legislation.

AAHP-10 It is Council policy to ensure that full consideration is given to the protection of archaeological heritage when undertaking, approving or authorising development in order to avoid unnecessary conflict between development and the protection of the archaeological heritage.

AAHP-11 It is Council policy to ensure that all development proposals affecting sites specified in the Record of Monuments and Places or Zones of Archaeological Potential are referred to the prescribed bodies (as set out in the Planning and Development Act 2000, as amended) and to have regard to the advice and

recommendations of the prescribed bodies in relation to undertaking, approving or authorising development.

AAHP-12 It is Council policy to ensure that when an unrecorded archaeological object or site is discovered, any works that threaten the object or site are immediately suspended and that the appropriate Government agency is informed.

AAHP-13 It is Council policy to protect historical burial grounds within Offaly and encourage their maintenance in accordance with conservation principles.

AAHP-17 It is Council policy to protect archaeological sites and monuments, underwater archaeology, and archaeological objects, which are listed in the Record of Monuments and Places, and to seek their preservation in situ (or at a minimum, preservation by record) through the planning process. It is Council policy to seek to protect important archaeological landscapes from inappropriate development.

The following relevant Archaeological Objectives are set out in Section 7.20 of the Plan:

AAHO-02 It is an objective of the Council to protect all structures listed in the Record of Protected Structures, that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest throughout the county.

AAHO-04 It is an objective of the Council to secure the protection (i.e. preservation in situ or at a minimum protection by record) of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act 1994, and their setting.

AAHO-05 It is an objective of the Council to protect and preserve archaeological sites and their settings discovered since the publication of the Record of Monuments and Places and the publication of the Urban Archaeology Survey.

AAHO-06 It is an objective of the Council to protect the Zones of Archaeological Potential identified in the Record of Monuments and Places.

Note: The Record of Monuments and Places (RMP) for County Offaly was published in 1995. Consequently, all monuments discovered since the publication are not RMP Sites but are subject to protection under Objective AAHO-05 of the County Development Plan 2014-2020, as set out above.

13.4.2.2 Relevant Archaeological Inventory

There are six previously identified monuments of archaeological interest/potential located within the defined study area (**Section 13.3.1**) associated with the **WOP Site**, as listed below in **Table 13.1**. Two of the sites – CH-1 & CH-4 – comprise two elements; both are located in Co. Offaly. Two of the monuments – CH-3 & CH-4 – are located in Cos. Offaly and Roscommon and two – CH-5 & CH-6 – are located in Co. Roscommon. None of the monuments are located within the area of the proposed works. The locations of the monuments are illustrated in **Figure 13.9**.

There are two previously identified monuments of archaeological interest/potential located within the defined study area (**Section 13.3.1**) associated with the **ADF Site**,

as listed below in **Table 13.2**. One of the sites – CH-7 – was identified after the publication of the RMP and will not be included in the next revision of the RMP; this was located on the north-eastern boundary to the existing ADF site. None of the monuments are located within the area of the proposed works. The locations of the monuments are illustrated in **Figure 13.10**.

The monument classifications are further expanded in **Appendix 13.1** and the monuments are briefly described in **Appendix 13.2**.

The following abbreviations/codes are used in relation to **Tables 13.1 & 13.2**.

Site No.: Individual site number assigned to site with respect to the defined study area.

SMR No.: Individual number assigned to site in the Sites and Monuments Record of the Archaeological Survey of Ireland

ITM: International Transverse Mercator Grid Reference

Classification: Brief nature of the archaeological site as listed in the RMP

RMP: Listed in the Record of Monuments and Places for Counties Offaly and Roscommon

OCDP: Listed in the Offaly County Development Plan

RCDP: Listed in the Roscommon County Development Plan

Distance: Distance from monument to closest element of proposed development

Table 13-1 Archaeological Inventory – WOP Site

Site No.	SMR No(s).	ITM	Townland	Classification	Protection	Distance
CH-1	OF013-007	597767 724338	Cloniffeen	Church & Graveyard	RMP; OCDP	400m
CH-2	OF013-010	596764 725450	Raghra; Cloniffeen	Castle - unclassified	RMP; OCDP	650m
CH-3	OF013-037001 RO056-018001	596625 725477	Raghra; Cloniffeen	Bridge	RMP; OCDP; RCDP	770m
CH-4A CH-4B	OF013-037003 RO056-018003 OF013-037002 RO056-018002	596620 725424	Raghra; Cloniffeen	Weir- Fish Ford	RMP; OCDP; RCDP	750m
CH-5	RO056-016	596396 725433	Raghrabeg	Bastioned Fort	RMP; RCDP	950m
CH-6	RO056-017	596570 725607	Lamb Island	Bastioned Fort	RMP; RCDP	1000m

Table 13-2 Archaeological Inventory – ADF Site

Site No.	SMR No(s).	ITM	Townland	Classification	Protection	Distance
CH-7	OF006-107	603101 727575	Clonfinlough	Road – Class 3 Togher	OCDP	300m
CH-8	OF013-016	602257 727849	Clonfinlough	Road – Class 3 Togher	RMP; OCDP	800m

13.4.2.3 Recorded Archaeological Artefacts

No artefacts are listed in the Topographical Registers of the National Museum of Ireland, as having been discovered within the defined study areas associated with the WOP or ADF sites.

13.4.2.4 Relevant Archaeological Investigations

A search undertaken of the Archaeological Excavations Bulletin (www.excavations.ie) indicates that one licensed archaeological investigation has been undertaken within the defined study area of the WOP Site, as follows:

- Two phases of archaeological monitoring were carried out by Jane Whitaker, ADS Ltd (Licence No: 02E0451 [Excavations 2002:1575]) in the environs of Shannonbridge power station to facilitate the construction of an access road and a new power station. Whitaker noted that, at the time of such monitoring the existing power station was surrounded by several ash-deposit pits, ‘as well as many power lines both above and below ground’. The development area was considered to be of potential archaeological sensitivity because of its location near to the River Shannon and industrial raised bogs. The first phase of work was carried out in May 2002, when ground reduction before the construction of a new access road was monitored. This road was being constructed across old ash-disposal ponds. Because it was to have ducting laid along the length of its sub-base, there was thought to be a probability of disturbing the original ground surface. However, there was a far greater depth of ash than previously thought, and the original ground surface was not encountered. The second phase was carried out in September and October 2002, at which time it was noted that ‘it appeared that in the environs of the existing power station the ground level had built up considerably in places with ash waste deposits, brick and disturbed subsoil. The site of the new power station had been badly disturbed over the years’.

Two licensed archaeological investigations have been undertaken within the defined study areas of the ADF Site, as follows:

- A Bog Re-assessment Survey of Blackwater, Ballaghurt, Bloomhill, Clooniff, Garryduff and Kilmacshane Bogs, which are part of the Bord na M)na (BnM) Blackwater group of bogs was undertaken in 2009 by Nicola Rohan, ADS Ltd (Licence Nos: 09E0402 [Excavations 2009:680]; 09E0403 [Excavations 2009:679]; 09E0404 [Excavations 2009:676]; *Draft Report on 2009 Reassessment Field Survey. Blackwater & Boora Group of Bogs: Cos. Offaly,*

Galway, Westmeath & Roscommon. Report prepared for Bord na Móna by Nicola Rohan, ADS Ltd, December 2009). The Blackwater group of bogs was initially surveyed by the IAWU in 1992 and 1993. The objective of the Re-assessment Survey was to re-identify any surviving previously recorded sites, identify new sites and subsequently record all archaeological sites identified during the course of survey. Blackwater Bog is located 0.5km north-east of Shannonbridge, Co. Offaly. It is one of the largest bogs in the BnM Blackwater group and has a total area of 2626ha. Approximately 50% of the bog was cutaway, with the remaining 50% in production at the time of survey. The cutaway areas were milled down to basal marl/early tree horizons covered with vegetation and are now at various stages of revegetation. A total of 26 sites, previously recorded during the first-round survey of Blackwater Bog in 1992, were lodged in the records of the Archaeological Survey of Ireland. The find spots of many of these sites were milled out or overgrown. No new archaeological sites were uncovered and no previously recorded archaeological sites were re-identified in Blackwater Bog during the reassessment survey.

- A re-assessment field walking survey was carried out in Curraghmore Bog (Curraghmore, Cloniff, Raghra & Cloniffeen Townlands) in August 2013 by Jane Whitaker, ADS Ltd (Licence No: 13E0226 [Excavations 2013:124]) on behalf of Bord na Mona. Curraghmore Bog is located 1.5km north-east of Shannonbridge, Co Offaly and is part of the Blackwater Group of Bogs. It measures c. 250ha in size and has been in production since 1992. In recent years however a large portion of the central part of this bog has been out of production and has become considerably overgrown with shrubs and large birch trees. A small area to the north-east, immediately south of the rail line that separates Curraghmore from the main body of Blackwater Bog, remains in production as does the southernmost extent of the bog. A total of 46 sites were recorded by the IAWU during the course of the 1992 Peatland Survey in what they described as an 'archaeological complex' in Curraghmore and Cloniff townlands and are listed by the Archaeological Survey of Ireland as OF013-012001-030, OF013-022, OF013-24 to 33. Of these 46 sites, 9 were subsequently selected for excavation as part of the 2001 BnM Mitigation Project. The excavations carried out by ADS Ltd included two linear trackways (01E0593 and 01E0594?), a row of posts (01E0595?) and the remains of five wooden platforms (01E0618?). No sites were recorded during the course of the 2013 re-assessment field survey. Some of the previously recorded sites may remain extant in the overgrown area but this was not possible to determine owing to the lack of visible field or drain surfaces.

13.4.2.5 Results of Geotechnical Site Investigations

A programme of geotechnical site investigations (GSI) was undertaken with respect to the project, and this included the excavation of Trial Pits and Slit Trenches, as well as Bore-Hole investigations.

Five Trial Pit excavations were monitored within the former Ash Depository located adjacent to the existing WOP Facility. It was not considered necessary to monitor

any GSI investigations within the existing BnM area of the overall facility as ground reduction works in this area were previously monitored by an archaeologist in 2002. All the trenches were excavated to depths of 4m and the fill comprised layers of ash. There were no indications of in-situ peat deposits at the bases of any of the trial pits.

Ten Trail Pit excavations were monitored at the ADF site. The 'in-situ' peat remnant deposits in this area ranged from 0.35m (TP3/17) to 1.85m (TP05/17). TP09/17 was located on an area of exposed subsoil and TP02/17 was located in an area of raised ground, the depth of which was 0.85m above the surface of the in-situ peat deposit.

13.4.2.6 Archaeological Potential of Study Area/Receiving Environment

The siting preferences of particular monument types are well documented. Broadly speaking, the general landscape of the study area offers a potential setting for additional sites and remains as follows:

- There is significant archaeological potential associated with Raised Bog. Tomlinson (2011, 170-77) notes that raised bogs have accumulated across post-glacial time, originating in lakes or low-lying hollows left in the landscape, where drainage was obstructed by irregular glacial deposits and where high water tables ensured widespread flooding. As water table and lake levels fell, reed swamps formed and peat accumulated. Eventually, the peat and its perched water table was elevated above the surrounding land so that no mineral water entered the bog; the vegetation changed to species tolerant on low nutrient conditions and associated with bog fed only by rainwater. The peat continued to expand upwards, taking the water table with it and acidic raised bogs were produced. Open lakes and reed swamps of the post-glacial period began to give way to fen vegetation 9,000 years ago and raised bog had overgrown most fens about 7,000 years ago. Following the Ice-Age 10,000 years ago, Mesolithic communities settled along the shores of lakes which preceded the raised bogs, As the open water receded gradually, replaced successively by reed-swamp fen and finally bog, such early settlements became covered by the bogs, and by the Bronze-Age, only small fen-fringed lakes remained, many of which became sacred and subject to votive offerings of weapons and ornaments. By 500BC agricultural settlement focussed on the edges of the bogs, which were drier than before, and provided spring grazing. Wooden trackways were constructed across the bogs to link the various settlements/communities. Ochre deposits at seepage points in the bogs were exploited and smelted to produce iron. In the Early Medieval Period, isolated bog margins were settled by ascetic ecclesiastics. Rapid increases in population after the seventeenth century led to widespread exploitation of raised bogs for fuel. Consequent, archaeological remains can exist both under and within raised bog complexes. In addition, as noted by Lynch (1991, 28) "exceptional powers of preservation make wetlands a unique archaeological resource. The oxygen-free conditions prevailing in the waterlogged peat mean poor microbial activity, which in turn allows for almost complete preservation of organic materials". Consequently, there is potential for features such as field walls and prehistoric burial and settlement sites to

be sited under bogs and for well-preserved artefacts, especially organic materials – arrowheads and axe-heads with intact wooden handles, clothing such as woollen caps and cloaks, ‘bog-butter’ - to be recovered from close to the surfaces of intact bogs. In addition a growing number of human bodies – with skin, hair etc. relatively intact – have been recovered from raised bogs in recent years.

- The subject lands and surrounding landscape offer many opportunities for the location of Fulachta Fiadh (prehistoric cooking sites). These sites are location specific, generally located close to streams and rivers or in wet marshy areas, and sometimes occur in groups.
- The former flood plains of larger watercourses, such as the River Shannon, provided a fertile, well-irrigated and relatively flat landscape suitable for agricultural practices from the earliest times of Irish farming (from c. 4000 BC onwards).
- Rivers and waterways have always attracted human activity for a variety of reasons, as a source of water to their use as a means of transport, as a source of energy and for their spiritual, religious or ritual associations. They also act as depositories for archaeological artefacts.

13.4.3 Inventory of Architectural Heritage

13.4.3.1 Introduction

Architectural heritage has several definitions and meanings for people. A useful rule of thumb (which is actually the legal situation) is set out in the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999 which provides the following definition:

- a) structures and buildings together with their settings and attendant grounds, fixtures and fittings,
- b) groups of such structures and buildings, and
- c) sites, which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

A rich architectural heritage has survived to the present day in County Offaly. While there are impressive demesne features and large houses in the County, much of the County’s architectural heritage has come from vernacular traditions with local craftsmen sometimes borrowing from the traditions of classical architecture to construct buildings that met local needs. This rich architectural heritage contributes enormously to the overall built environment and, indeed, helps to give it definition in terms of place and character for those that live and work in the county as well as those who visit there.

13.4.3.2 Protected Structures

Section 51 of the Planning and Development Act, 2000 (as amended) requires the Development Plan to include a record of structures. These structures form part of the architectural heritage of the County and are to be protected. Offaly County Council

has drawn up this list, referred to as the Record of Protected Structures (RPS), in which each structure is given a reference number and is a constituent part of the County Development Plan.

WOP SITE: There are eleven structures listed in the Record of Protected Structures (RPS) of the Offaly County Development Plan 2014-2020 as being located within the subject study area associated with the WOP Site. One of these, Site CH-9 is also listed as being of architectural interest by the National Inventory of Architectural Heritage (NIAH) and rated of national importance, as well as being listed by the RMP (Site CH-3 above). A further nine – Sites CH-13, CH-14, CH-15, CH-16, CH-17, CH-18 & CH-19 – are also listed by the National Inventory of Architectural Heritage (NIAH) and all are considered to be of Regional Interest. All of the structures are listed below in **Table 13.3** and their locations are indicated in **Figure 13.9**. All of these are located outside the extent of the power station lands with the closest structure (CH-14) to the subject development area being 450m. They are described in **Appendix 13.3**.

ADF SITE: There are no structures listed in the RPS as being located within the study area associated with the ADF Site.

Table 13-3 List of Protected Structures within Study Areas

Site No.	RPS No.	ITM	Townland	Site Name	Classification
CH-9	19-09	596625 725477	Cloniffeen Raghra	Shannon Bridge	Bridge
CH-10	19-13	596738 725393	Cloniffeen	'Magazine'	Magazine Building
CH-11	19-11	597073 725485	Raghra		House
CH-12	19-08	596672 725368	Cloniffeen		Bridge
CH-13	19-01	597325 725460	Raghra		School
CH-14	19-02	597127 725445	Cloniffeen	St Kieran's	Church/Chapel
CH-15	19-03	597042 725495	Raghra	Community Centre	Church/Chapel
CH-16	19-04	596833 725463	Cloniffeen	The Laurels	House
CH-17	19-05	596744 725453	Cloniffeen	Luker	Public House
CH-18	19-07	596699 725447	Cloniffeen		Machinery
CH-19	19-06	596709 725471	Cloniffeen		Lock Keeper's House

13.4.3.3 National Inventory of Architectural Heritage

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Culture, Heritage and the Gaeltacht. It was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

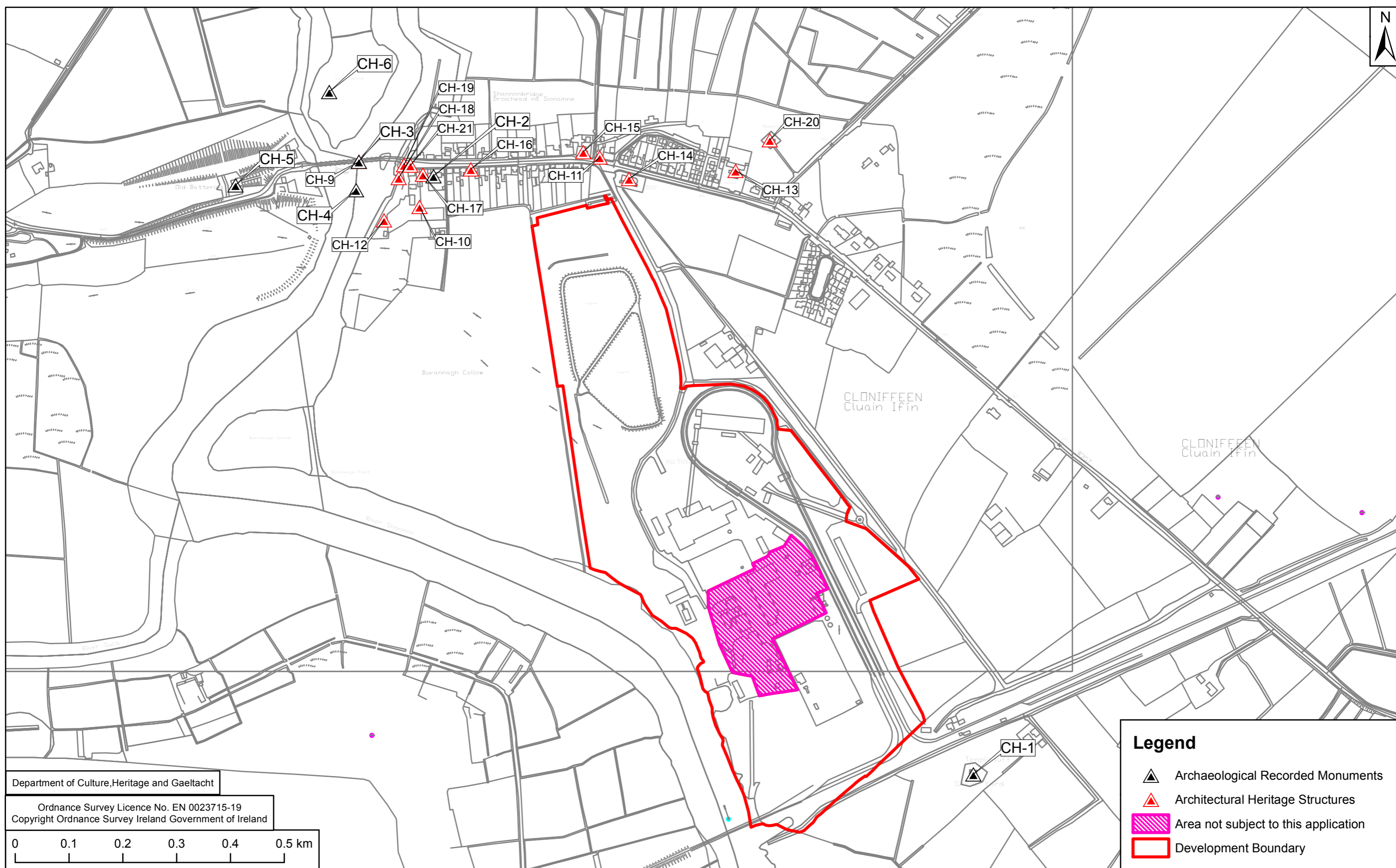
Its purpose is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. It is intended that the NIAH will provide the basis for the recommendations of the Minister for Culture, Heritage and the Gaeltacht to the planning authorities.

WOP SITE: There are a total of eleven structures of Architectural Heritage interest listed by the non-statutory NIAH as being located within the subject study area associated with the WOP Site. Nine of these are also included in the Record of Protected Structures (RPS) of the Offaly County Development Plan 2014-2020, as listed above in **Table 13.3**. The remaining two sites are listed below in **Table 13.4**, and their locations are indicated in **Figure 13.9**. They are described in **Appendix 13.3**.

ADF SITE: There are no structures listed by the NIAH as being located within the study area associated with the ADF Site.

Table 13-4 List of NIAH Structures within Study Areas

Site No.	NIAH Reg. No.	ITM	Townland	Classification	Rating
CH-20	14805001	597389 725517	Cloniffeen	Water Tower	Local
CH-21	14805007	596721 725470	Cloniffeen	Water Pump	Local



Department of Culture, Heritage and Gaeltacht

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0 0.1 0.2 0.3 0.4 0.5 km

Legend

- Archaeological Recorded Monuments
- Architectural Heritage Structures
- Area not subject to this application
- Development Boundary

REV	DATE	REVISION DESCRIPTION	DRN	PROD	VER	APP

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CLIENT APPROVAL PLANNING TENDER CONSTRUCTION AS-BUILT

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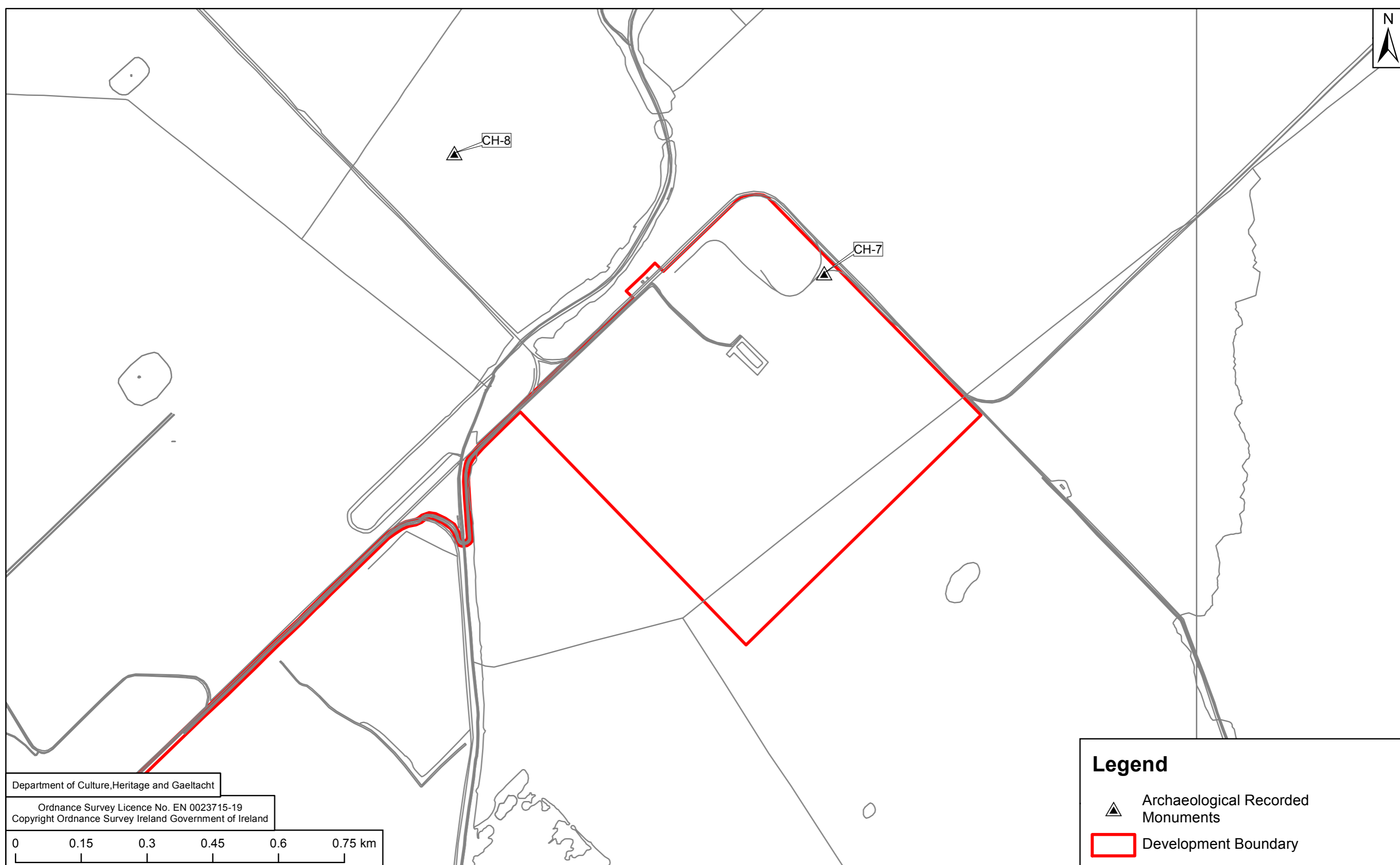
PROJECT: **West Offaly Power, Transition to Biomass**

DRAWING TITLE: **Figure 13.9 - WOP Station - Cultural Heritage Sites**

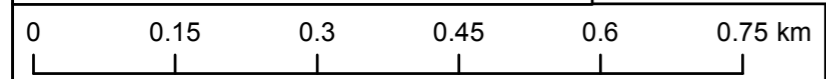
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Legend

-  Archaeological Recorded Monuments
-  Development Boundary

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PRODUCTION UNIT: **Civil & Environmental Engineering**

PROJECT: **West Offaly Power,
 Transition to Biomass**

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 WOP ADF -
 Cultural Heritage Sites**

CONTRACT:

DRAWN: **E.O'Shea**

PRODUCED: **E.O'Shea**

VERIFIED: **E.Delaney**

APPROVED: **P.Kavanagh**

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13.4.4 Impacts of the Development

The following **Table 13.5** (from EPA, 2017, Table 3.3) provides the baseline criteria used to describe the impacts (effects) that the proposed development will have on Cultural Heritage Sites, Structures and Features.

Table 13-5 Descriptive Criteria for Cultural Heritage Impacts

Quality of Effects	<p>Positive Effects A change which improves the quality of the environment</p> <p>Neutral Effects No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.</p> <p>Negative/adverse Effects A change which reduces the quality of the environment</p>
Significance of Effects	<p>Imperceptible An effect capable of measurement but without significant consequences.</p> <p>Not significant An effect which causes noticeable changes in the character of the environment but without significant consequences.</p> <p>Slight Effects An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.</p> <p>Moderate Effects An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.</p> <p>Significant Effects An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.</p> <p>Very Significant An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.</p> <p>Profound Effects An effect which obliterates sensitive characteristics</p>
Extent and Context of Effects	<p>Extent Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.</p> <p>Context Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions</p>
Probability of Effects	<p>Likely Effects</p>

	<p>The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.</p> <p>Unlikely Effects The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.</p>
<p>Duration and Frequency of Effects</p>	<p>Momentary Effects Effects lasting from seconds to minutes</p> <p>Brief Effects Effects lasting less than a day</p> <p>Temporary Effects Effects lasting less than a year</p> <p>Short-term Effects Effects lasting one to seven years.</p> <p>Medium-term Effects Effects lasting seven to fifteen years.</p> <p>Long-term Effects Effects lasting fifteen to sixty years.</p> <p>Permanent Effects Effects lasting over sixty years</p> <p>Reversible Effects Effects that can be undone, for example through remediation or restoration</p> <p>Frequency of Effects Describe how often the effect will occur.</p>

13.4.5 West Offaly Power (WOP) Station

13.4.5.1 Construction Phase

Historical Heritage: The general historical background to the WOP Station development area is discussed above in **Section 13.4.1.1**. In summary, there are no significant historical events associated with the existing/proposed development area which have the ability to be impacted upon by the construction of the proposed development. Consequently it is considered that there are no predicted impacts with respect to Historical Heritage with regard to the proposed construction phase of the development within the WOP Station area. The effect can be stated as **Neutral**.

Archaeological Heritage: The general archaeological background to the subject development area in discussed above in **Section 13.4.2.2**. In summary, there are six previously identified monuments of archaeological interest/potential located within the defined study area associated with the WOP Facility, as listed above in **Table 13.1 (Section 13.4.2.2)**. None are located within, or in the immediate environs of, the subject development areas associated with the WOP Station. The nearest archaeological monument to any proposed construction area is CH-1 (Church & Graveyard) which is located approx. 400m to the south of the proposed Biomass

Storage Slab B; the remaining archaeological monuments (CH-2 – CH-6) are located at distances of between 650m – 1000m from the nearest element of any proposed construction area.

There are no records for the discovery of any archaeological artefacts within, or in the immediate area of the WOP Station site (**Section 13.4.2.3**) and nothing of archaeological interest/potential was noted by programme of archaeological monitoring associated with the construction of the present station (**Section 13.4.2.4**). Likewise, nothing of archaeological interest/potential was noted by archaeological monitoring of geotechnical site investigations associated with the subject development (**Section 13.4.2.5**).

All elements of proposed construction are located in areas which have previously been subjected to varying degrees and extents of ground disturbance/ground reduction works, many of which were previously subjected to archaeological monitoring.

Given the above, It is considered there is very low potential for the discovery of subsurface archaeological features/deposits or artefacts within the specific proposed development areas at the WOP Station and that no predicted direct impacts will occur with respect to Archaeological Heritage during the construction phase of the development at these locations. The effect can be stated as **Neutral**.

Architectural Heritage: The architectural heritage background to the subject development area is discussed above in **Section 13.4.3**. As noted in **Section 13.4.3.2**, there are eleven structures listed in the Record of Protected Structures (RPS) of the Offaly County Development Plan 2014-2020 as being located within the subject study area associated with the WOP Site; one of these, Site CH-9 is also listed as being of architectural interest by the National Inventory of Architectural Heritage (NIAH) and rated of national importance, as well as being listed by the RMP (Site CH-3 above), while a further nine – Sites CH-13, CH-14, CH-15, CH-16, CH-17, CH-18 & CH-19 – are also listed by the National Inventory of Architectural Heritage (NIAH) and all are considered to be of Regional Interest; all of the structures are listed above in **Table 13.3**.

There are a total of eleven structures of Architectural Heritage interest listed by the non-statutory NIAH as being located within the subject study area associated with the WOP Site, nine of these are also included in the Record of Protected Structures (RPS) of the Offaly County Development Plan 2014-2020, as listed above in **Table 13.3**. The remaining two sites (CH-20 and CH-21) are listed above in **Table 13.4**.

There are no structures or features of architectural heritage interest located within, or in the immediate environs of, the proposed development areas of the WOP Station site – the closest being St. Kieran’s Church (Site CH14) situated approx. 450m to the north of the nearest construction element.

Given the above, it is considered that no predicted direct impacts will occur with respect to Architectural Heritage during the construction phase of the development at the WOP Station. The effect can be stated as **Neutral**.

13.4.5.2 Operational/Post-Construction Phase

There are no extant monuments or structures of historical, archaeological or architectural heritage interest located within, or in the immediate environs of the subject development area at the WOP Site. The closest archaeological monument to any element of the proposed development is CH-1 (Church & Graveyard), positioned approx. 400m to the south of the proposed East Biomass Stockpile location, while the closest structure of architectural heritage interest is St. Kieran's Church (CH-14) located approx. 450m to the north of the proposed Pellet Storage Silos. In addition, it is noted that the various construction elements of the proposed development are located adjacent existing buildings, providing varying degrees of screening.

Given the above, it is considered that the various proposed elements of development at the WOP Station, will not cause any adverse visual impact to the setting or general views of or from any archaeological monuments or protected structures and that no predicted visual impacts will occur with respect to historical, archaeological or architectural heritage relating to the operational/post-construction phase of the development at the WOP Station. The effect can be stated as **Neutral**.

13.4.6 Ash Disposal Facility (ADF)

13.4.6.1 Construction Phase

Historical Heritage: The general historical background to the ADF development area is discussed above in **Section 13.4.1.2**. In summary, there are no significant historical events associated with the proposed development area which have the ability to be impacted upon by the construction of the proposed development. Consequently it is considered that there are no predicted direct impacts with respect to Historical Heritage with regard to the proposed construction phase of the development within the ADF area. The effect can be stated as **Neutral**.

Archaeological Heritage: The general archaeological background to the subject development area is discussed above in **Section 13.4.2.2**. In summary, there are two previously identified monuments of archaeological interest/potential located within the defined study area associated with the ADF Site, as listed above in **Table 13.2**. One of the sites – CH-7 – was identified after the publication of the RMP and will not be included in the next revision of the RMP; its location, as marked on the Sites and Monuments Record (SMR) maps (www.archaeology.ie), is 300m to the northeast of the proposed ADF extension area while CH-8 is located 800m to the north.

There are no records for the discovery of any archaeological artefacts within, or in the immediate area of the ADF site (**Section 13.4.2.3**) and nothing of archaeological interest/potential was noted by archaeological monitoring of geotechnical site investigations associated with the subject development (**Section 13.4.2.5**). Furthermore, no features of archaeological interest/potential were noted as a result of a surface reconnaissance of exposed peat surfaces in the area of the ADF site, together with an examination of the exposed section of open drains, cut through in-

situ remnant peat deposits, as well as the exposed faces of areas of previous cut-way/harvesting.

Given the above, it is considered that there are no predicted direct impacts to any previously recorded archaeological monuments by the proposed extension to the ADF. The effect can be stated as **Neutral**. However, groundworks associated with developments such as that under discussion have the general ability to uncover and disturb hitherto unrecorded subsurface features, deposits, structures and artefacts of archaeological interest and potential, particularly within and under existing peat-bogs which, as discussed above in **Section 13.4.2.6**, are of significant archaeological potential. Without specific mitigation strategies, such subsurface archaeological features that might exist within and under areas of existing peat cover would be disturbed and destroyed and not identified and recorded. The effect, in this instance, and in the absence of mitigation, could be **Negative, Localised, Permanent and Very Significant**.

Architectural Heritage: There are no structures listed in the Offaly County Development Plan – RPS, or by the NIAH as being located within the study area associated with the ADF Site. Consequently it is considered that no direct impacts to structures of architectural heritage interest will occur during the construction of the proposed ADF extension. The effect can be stated as **Neutral**.

13.4.6.2 Operational/Post-Construction Phase

There are no extant monuments or structures of historical, archaeological or architectural heritage interest located within, or in the immediate environs of the subject development area at the ADF Site. The closest archaeological Recorded Monument to any element of the proposed development is CH-8 (Road – Class 3 Togher), positioned approx. 800m to the north of the proposed site extension.

Given the above, it is considered that the various proposed extension development at the ADF Site, will not cause any adverse visual impact to the setting or general views of, or from, any archaeological monuments or protected structures and that no predicted visual impacts will occur with respect to historical, archaeological or architectural heritage relating to the operational/post-construction phase of the development at the WOP Station. The effect can be stated as **Neutral**.

13.4.6.3 Decommissioning Phase

It is not considered likely that any impacts will occur with respect to the decommissioning phase of the project.

13.4.7 Peat Supply to West Offaly Power Station

The peat supply to the WOP Station is provided directly by Bord na Móna (BnM) from existing bogs/peatlands that are presently being harvested. Such harvesting works is the subject to a *Code of Practice between the Department of Arts, Heritage and the Gaeltacht, the National Museum of Ireland and Bord na Móna* (2012). Bord na Móna employ a Project Archaeologist to advise them on all aspects of archaeology relating to its estate and assist in the development of a post-survey archaeology

strategy for its peatlands. In terms of the present project, matters pertaining to archaeology within the harvesting areas are solely the remit of Bord na Móna.

The transport of peat to the WOP Site and ash to the ADF Site will be by means of the existing Bord na Mona railway network (**Section 13.4.1.2**). There are no extant monuments or structures of historical, archaeological or architectural heritage interest located on the route, or in the immediate environs, of this railway line. Consequently it is considered that the continued use of this transport route will not cause any direct or indirect (visual) impacts to any items of Cultural Heritage interest.

13.4.8 Biomass Supply to West Offaly Power Station

The proposed biomass supply to the WOP Station will be by means of the existing transport network. No improvements to the infrastructure of this network will be required as a result of the supply of biomass to the WOP Station and, consequently, it is considered that such will result in any direct or indirect (visual) impacts to any items of Cultural Heritage interest.

13.4.9 Do-Nothing Scenario Impact

The “do nothing” scenario is the outcome that would be achieved if the proposed development was not constructed.

In terms of Cultural Heritage, no impacts (direct or visual) will occur at the WOP Site. Likewise, no direct impacts to previously recorded items of Cultural Heritage interest will occur at the ADF Site.

13.5 Mitigation

13.5.1 West Offaly Power Station

13.5.1.1 Local History

No significant events of historical interest are associated with the WOP Station site or its environs. As noted above, it is considered that there are no predicted impacts with respect to Historical Heritage with regard to the proposed construction and post-construction/operational phases of the development within the WOP Station area. Consequently it is considered that no mitigation measures are required.

13.5.1.2 Archaeological Heritage

There are six previously identified monuments of archaeological interest/potential located within the defined study area associated with the WOP Station, as listed above in **Table 13.1 (Section 13.4.2.2)**. None are located within, or in the immediate environs of, the subject development areas associated with the WOP Station. The nearest archaeological monument to any proposed construction area is CH-1 (Church & Graveyard) which is located approx. 400m to the south of the proposed Biomass Storage Slab B; the remaining archaeological monuments (CH-2 – CH-6) are located at distances of between 650m – 1000m from the nearest element of any

proposed construction area. There are no records for the discovery of any archaeological artefacts within, or in the immediate area of the WOP Station site (**Section 13.4.2.3**) and nothing of archaeological interest/potential was noted by programme of archaeological monitoring associated with the construction of the present station (**Section 13.4.2.4**). Likewise, nothing of archaeological interest/potential was noted by archaeological monitoring of geotechnical site investigations associated with the subject development (**Section 13.4.2.5**). In addition, all elements of proposed construction are located in areas which have previously been subjected to varying degrees and extents of ground disturbance/ground reduction works, many of which were previously subjected to archaeological monitoring.

As noted above it is considered that there are no predicted impacts with respect to Archaeological Heritage with regard to the proposed construction and post-construction/operational phases of the development within the WOP Station area. Consequently it is considered that no mitigation measures are required.

13.5.1.3 Architectural Heritage

There are thirteen structures of Architectural Heritage nearest located within the defined study area of the WOP Site; eleven are listed in the Record of Protected Structures (RPS) of the Offaly County Development Plan 2014-2020, nine of which are also listed by the NIAH with a further two listed only by the NIAH. There are no structures or features of architectural heritage interest located within, or in the immediate environs of, the proposed development areas of the WOP Station site – the closest being St. Kieran’s Church (Site CH14) situated approx. 400m to the north of the nearest construction element.

As noted above it is considered that there are no predicted impacts with respect to Architectural Heritage with regard to the proposed construction and post-construction/operational phases of the development within the WOP Station area. Consequently it is considered that no mitigation measures are required.

13.5.2 ADF Site

13.5.2.1 Local History

No significant events of historical interest are associated with the WOP Station site or its environs. As noted above it is considered that there are no predicted impacts with respect to Historical Heritage with regard to the proposed construction and post-construction/operational phases of the development at the ADF Site. Consequently it is considered that no mitigation measures are required.

13.5.2.2 Archaeological Heritage

There are two previously identified monuments of archaeological interest/potential located within the defined study area associated with the ADF Site, as listed above in **Table 13.2**. One of the sites – CH-7 – was identified after the publication of the RMP and will not be included in the next revision of the RMP; its location, as marked on the Sites and Monuments Record (SMR) maps (www.archaeology.ie), is 300m to

the northeast of the proposed ADF extension area while CH-8 is located 800m to the north. There are no records for the discovery of any archaeological artefacts within, or in the immediate area of the ADF site (**Section 13.4.2.3**) and nothing of archaeological interest/potential was noted by archaeological monitoring of geotechnical site investigations associated with the subject development (**Section 13.4.2.5**). Furthermore, no features of archaeological interest/potential were noted as a result of a surface reconnaissance of exposed peat surfaces in the area of the ADF site, together with an examination of the exposed section of open drains, cut through in-situ remnant peat deposits, as well as the exposed faces of areas of previous cut-way/harvesting.

As noted above, it is considered that there are no predicted impacts with respect to Archaeological Heritage with regard to the proposed construction and post-construction/operational phases of the development at the ADF Site. However, as further noted in Section **13.4.6.1**, groundworks associated with developments such as that under discussion have the general ability to uncover and disturb hitherto unrecorded subsurface features, deposits, structures and artefacts of archaeological interest and potential, particularly within and under existing peat-bogs which, as discussed above in **Section 13.4.2.6**, are of significant archaeological potential. Without specific mitigation strategies, such subsurface archaeological features that might exist within and under areas of existing peat cover would be disturbed and destroyed and not identified and recorded. Consequently, the following mitigation measures are suggested:

1. Prior to the commencement of site preparation/construction works, an archaeologist shall be appointed to oversee all required archaeological mitigation strategies, in consultation with the Bord na Móna Project Archaeologist.
2. An archaeological monitoring programme, appropriate to the nature of the site and proposed site preparation/construction works methodology, shall be defined by (or agreed with) the Bord na Móna Project Archaeologist. In the event of archaeological material being uncovered during the course of such monitoring, the archaeologist shall be empowered to have works stopped in the vicinity of such material pending receipt of advice from the National Monuments Service. Likewise should archaeological/historical artefactual material be recovered during such works, then the requirements of the National Museum of Ireland with regard to such items should be implemented.
3. Following completion of all monitoring and any other possible archaeological investigations associated with each phase of works, the archaeologist shall prepare a report for submission to the Planning Authority and the Department of Culture Heritage and the Gaeltacht.

With the implementation of the mitigation set out above the potential impact can be reduced to **Impertceptible**.

13.5.2.3 Architectural Heritage

There are no structures listed in the Offaly County Development Plan – RPS, or by the NIAH as being located within the study area associated with the ADF Site. It is

considered that there are no predicted impacts with respect to Architectural Heritage with regard to the proposed construction and post-construction/operational phases of the development at the ADF Site. Consequently it is considered that no mitigation measures are required.

13.6 Difficulties Encountered in Compiling Information

No difficulties were encountered with respect to the undertaking of the 'paper survey' or monitoring of the geotechnical site investigations. Likewise, no difficulties were generally encountered with respect to the undertaking of fieldwork, although in some areas of the ADF Site edges to a number of drains were partially overgrown as were some surface areas of remnant bog. However, it is considered that the total areas of such was quite small and insignificant in terms of the overall reconnaissance survey undertaken at the ADF Site.

13.7 Residual Impacts

It is not envisaged that any negative residual effects will occur with respect to Cultural Heritage as a result of the project proceeding with the adoption and implementation of the suggested mitigation measures relating to Archaeological Heritage at the ADF Site. It is considered that the reduction of industrial-scale peat harvesting will have a residual benefit in terms of Archaeological Heritage, as the potential for the disturbance of unknown/unrecorded archaeological remains which might exist within and/or under the bogs will be greatly reduced. Furthermore, in relation to the ADF Site, there will be an additional beneficial effect as the requirement for archaeological monitoring will ensure that any artefacts or potential subsurface archaeological remains that might exist at this site can be identified and recorded.

13.8 Cumulative Impact

The cumulative impact of the proposed development and other existing and/or approved developments in the area was assessed by taking into account the existing baseline environment and the predicted impacts of this and other approved developments in the area.

The impacts associated with the peat bogs that supply WOP are as detailed in **Section 13.4.7** of this Chapter and it is considered that there are no other cumulative impacts.

Existing and/or approved developments include the existing Edenderry Power (EPL) Station at Clonbulloge, Co. Offaly and Lumcloon Battery Storage Project on lands adjacent the WOP station; furthermore, the existing Lough Ree Power (LRP) station at Lanesborough will be subject to a planning application with respect to the transition of the station from peat to biomass. Other peat harvesting activities are carried out by Bord Na Móna in relation to LRP and EPL, as well as the harvesting of peat for other end uses (e.g. horticulture). In addition, third-party harvesting of peat also

occurs on bogs throughout the Midland region, ranging from small scale turbarry for domestic fuel to commercial scale peat removal for horticultural purposes.

It is considered that the cumulative effect of the proposed development, together with the existing and/or approved developments, as outlined above, will not have any negative consequences in terms of Cultural Heritage.

13.9 References

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