CLONASLEE FLOOD RELIEF SCHEME

Appendix 16.6: Wade Survey

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Report on Wade and Metal Detection Survey at Clonaslee, Co. Laois

Archaeological Management Solutions

Licence Numbers: 24D0179, 24R0245

By Dr Conn Herriott

June 2024

TITLE PAGE

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Project Name:	Report on Wade and Metal Detection Survey at Clonaslee, Co. Laois
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Townland Names:	Brittas, Bunastick
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Grid Reference (ITM):	631675, 710751 (centroid)
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Disclaimer

The results, conclusions and recommendations contained within this report are based on information available at the time of its preparation. Whilst every effort has been made to ensure that all relevant data have been collated, the author and AMS accept no responsibility for omissions and/or inconsistencies that may result from information becoming available subsequent to the report's completion.

Summary

This report describes the results of an archaeological wade and metal detection survey along a 45m-long stretch of the Clodiagh River in Brittas and Bunastick townlands near Clonaslee, Co. Laois, ahead of proposed Flood Relief Scheme works (embankment and debris trap).

The survey was carried out on 1 May 2024 by marine archaeologist Dr Conn Herriott, surveyor/GIS specialist Alistair Branagh and historical and archaeological researcher Dr Fergal Donoghue of Archaeological Management Solutions (AMS). The survey was carried out under dive survey licence number 24D0179 and detection device consent number 24R0245, issued to Dr Herriott by the National Monuments Service (NMS).

The Survey Area was inspected by detailed visual walkover wade and metal detection survey in order to identify any archaeological objects, features or deposits which may have been present.

The wade and metal detection survey did not identify any structures, features, deposits or finds of archaeological interest within the Survey Area. However, several cultural heritage features were investigated and recorded in the course of the survey. Based on cartographic and field survey, the culvert in the west bank of the Clodiagh River within the Survey Area (ITM 631673, 710755) was interpreted as relatively modern in date, while the footbridge and associated weir and groynes *c.*30m to the south of the Survey Area were dated to the mid-/late nineteenth century. The only mitigations proposed here against adverse impacts on these cultural heritage remains by the proposed works are physical distancing and minimising of visual impacts.

In construction and maintenance of the proposed embankment, it is recommended that care be taken to avoid damaging or visually impeding these cultural heritage features. This will be best managed by barriers during works, and an adequate distancing of the embankment's base from any cultural heritage features.

Similarly for the debris trap, it is recommended that care be taken that the concrete posts supporting this structure do not physically impact or visually obscure from pedestrians any of the cultural heritage features in the Survey Area or vicinity.

Recommendations are subject to the agreement of the National Monuments Service of the Department of Housing, Local Government and Heritage, the National Museum of Ireland and the local planning authority where required and should only be carried out in accordance with the necessary approvals. Please note that the statutory and local authorities may issue alternative and/or additional recommendations/conditions.

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Abbreviations and Definitions

Abbreviation	Definition
ACA	Architectural Conservation Area
AMS	Archaeological Management Solutions
DAHGI	Department of Arts, Heritage, Gaeltacht & The Islands
DEHLG	Department of Education, Heritage & Local Government
DGPS	Differential Global Positioning System
DHLGH	Department of Housing, Local Government and Heritage
EDM	Electronic Distance Measurement
EIAR	Environmental Impact Assessment Report
FRS	Flood Relief Scheme
GIS	Geographic Information System
GPS	Global Positioning System
HSA	Health & Safety Authority
ITM	Irish Transverse Mercator
NIAH	National Inventory of Architectural Heritage
NMI	National Museum of Ireland
NMS	National Monuments Service
OS	Ordnance Survey
RAMS	Risk Assessment Method Statement
RMP	Record of Monuments & Places
RPS	Record of Protected Structures
SMR	Sites and Monuments Record
SPA	Special Protection Area

Coordinate System

All grid coordinates in this report use the Irish Transverse Mercator (ITM) coordinate reference system unless otherwise stated.

1 Introduction

1.1 Project Background

This report presents the results of a detailed archaeological wade and metal detection survey along a 45m-long stretch of the Clodiagh River in Brittas and Bunastick townlands in Clonaslee, Co. Laois (Figure 1 & Figure 2; Plate 1). The survey was carried out for the proposed Clonaslee Flood Relief Scheme (FRS), Co. Laois—referred to hereafter as the 'Proposed Scheme'—for RPS on behalf of Laois County Council.

Following a review of the Environmental Impact Assessment Scoping Report for the Proposed Scheme, the Department of Housing, Local Government and Heritage (DHLGH) presented a series of recommendations in relation to archaeological heritage, including underwater archaeology in their response letter dated 9 January 2024. This included:

> *Advance Underwater Archaeological Impact Assessment (UAIA), to include dive/wade, metal detection surveys of all areas where in-stream works are proposed. UAIA may include targeted in-river pre-development test-excavations within specific areas of the proposed development area, to be agreed with the Department, in order to adequately assess the nature, depth, extent and artefact-bearing potential of the riverine stratigraphy, to assess the potential for the remains of bridges, fording points and other riverine structures and features, and to facilitate further characterisation of underwater cultural heritage features and structures that have been identified in the prior dive/wade surveys and by prior research.*

The subsequent archaeological wade and metal detection survey was carried out by marine archaeologist Dr Conn Herriott, surveyor/GIS specialist Alistair Branagh and historical and archaeological researcher Dr Fergal Donoghue of Archaeological Management Solutions (AMS) on 1 May 2024, under dive survey licence number 24D0179 and detection device consent number 24R0245, issued to Dr Herriott by the National Monuments Service (NMS).

1.2 Purpose and Scope of this Assessment

The aim of the archaeological wade and metal detection survey was to locate and identify any cultural heritage remains that were traceable visually or by use of metal detector within the defined limits of the Survey Area along a 45m-long stretch of the Clodiagh River and its banks (Figure 1 & Figure 2; Plate 1). Specifically, the aims of the survey were to:

- assess the nature, depth, extent and artefact-bearing potential of the riverine stratigraphy;
- assess the potential for the remains of bridges, fording points and other riverine structures and features;

- ascertain the character, condition and extent of any archaeological features/deposits or objects likely to be affected by the proposed works, including any associated temporary works, and the likely impact of the proposed works on these remains;
- accurately locate these archaeological features/deposits or objects and present the findings in map form;
- describe same and discuss their likely provenance;
- recommend appropriate measures for the avoidance of these remains or, where this cannot be achieved, to recommend measures to mitigate the impact of the works; and
- incorporate all of the above into a UAIA report.

1.3 Proposed Works

The town of Clonaslee has a history of river flooding due to its location on the Clodiagh River. The main cause of flooding is high water levels in the Clodiagh River, which rises in the Slieve Bloom Mountains. Clonaslee town is located at the base of these mountains where the topography changes from steep slopes to a flat terrain. High water levels in the river are quick to occur and quick to dissipate. In order to alleviate this flooding, a Clonaslee FRS has been proposed for the Clodiagh River. The works to be carried out along the stretch of river where the survey was conducted include an embankment and a debris trap with associated slipway located west of the Clodiagh River (Figure 3).

1.3.1 Embankment

The embankment is a trapezoidal structure that will be composed of fill material (Figure 3) and will be used to raise the existing riverside footpath by 0.44m average as a flood defence. The embankment will allow for the containment and redirection of water, protecting this vulnerable area from flooding. The proposed embankment will be 135m long with a maximum height above existing ground level of 0.8 m. The crest of the embankment will be paved to allow traffic (from Coillte, Uisce Éireann and private Landowner) to drive on top of the embankment and amenity users to walk/cycle along the embankment. The re-paved embankment will have a crest width of 3.00 m, and the side slopes of 1:3. It will merge into the existing ground level at each end i.e., there will be no perceivable step or ramp-up onto the embankment;

1.3.2 Debris Trap

The purpose of the debris trap is mainly to catch riverbed material transported downriver during floods. This material varies in size and volume depending on precipitation in the surrounding area. In order to prevent blockages along the river, a concrete base extending the full width of the Clodiagh River will be inserted 300mm below the riverbed level to allow re-naturalisation of riverbed material above into which, concrete poles will be cast in place (Figure 3). A slipway is required to allow for maintenance access to the debris trap. The proposed slipway will extend from the Brittas Wood trail pathway to the edge of the River Clodiagh. A locked gate and fence will be installed across the slipway which will be opened only to facilitate machine access to the debris trap during maintenance works.

2 Site Location and Description

2.1 Site Location

The wade and metal detection survey was undertaken in the area of the proposed in-stream works. This Survey Area (45m NNE–SSW, 8.5m WNW–ESE) is located in Brittas Wood, in the townlands of Brittas and Bunastick within the civil parish of Kilmanman and barony of Tinnahinch, Co. Laois (centroid ITM 631675, 710751) (Figure 1 & Figure 2). Clonaslee village is located *c.*180m to the north. This area is located within the Slieve Bloom Mountain Special Protection Area (SPA). The Brittas Loop Walk passes through this SPA, running parallel to the Clodiagh River, where the proposed embankment will replace a portion of the path associated with the Brittas Loop Walk. Clonaslee village (not including the current Survey Area) is designated as an Architectural Conservation Area (ACA) as highlighted in the Laois County Development Plan 2021–2027.

The Clodiagh River is shallow (max. 0.4m deep within the Survey Area) with an uneven level stony base and moderately sloping earthen riverbanks (avg. 30°–60° slope, *c.*1.5–2m high). The banks and area adjoining the Survey Area are heavily wooded by large deciduous trees. These woods (i.e., Brittas Wood) follow the course of the Clodiagh River upstream to the south. The wider area is characterised by undulating lowland tillage and pasture, on a bedrock of sandstone, conglomerate and siltstone (Palaeozoic, Upper Devonian – Carboniferous).[1]

2.2 Details of Statutory Protections that Apply to the Site

The Survey Area is within the Slieve Bloom Mountain SPA.[2] No other statutory protections apply to the site.

[1] Geological Survey Ireland Spatial Resources (arcgis.com) [Accessed: 12 May 2024].

[2] https://www.npws.ie/protected-sites/spa/004077 [Accessed: 25 February 2024].

3 Archaeological and Historical Background

3.1 Recorded Monuments

There are several Recorded Monuments within the vicinity of the Survey Area (Table 1; Figure 1, Figure 4–Figure 6). The nearest of these is a children's burial ground (LA002-019----), located *c.*160m to the south-southwest. Two cross-slabs (LA002-012001- & LA002-012002-) lie *c.*350m to the north of the Survey Area, within St Manman's Church (NIAH no. 12800201) in Clonaslee. The cross-slabs were relocated here from the graveyard at Carrigeen (LA002-013001-).[3] A structure (LA002-010----) within Clonaslee village *c.*280m to the north-northeast of the Survey Area was originally listed in the Record of Monuments and Places (RMP) as a castle site, but a survey in 1967 posited that this may have been a mill.[4]

There is a cropmark of a designed landscape feature or possible tree-ring (LA002-028----) *c.*320m to the northwest of the Survey Area. This is not listed in the RMP but is included in the Sites and Monuments Record (SMR). Another designed landscape feature (LA002-017----) has been assessed as 'probably only wooded area that is shown on 1910 OS 6-inch map'.[5]

Table 1: Recorded Monuments within 500m of the Survey Area

SMR Ref.	Site Type	Townland	ITM Easting	ITM Northing	Legal Status
LA002-010----	Structure	Clonaslee	631799	711025	SMR
LA002-012001-	Cross-slab (present location)	Clonaslee	631724	711150	RMP
LA002-012001-	Cross-slab (present location)	Clonaslee	631724	711150	RMP
LA002-017----	Designed landscape feature	Brittas	631262	710475	SMR
LA002-019----	Children's burial ground	Brittas	631491	710688	RMP
LA002-028----	Designed landscape - tree-ring	Brittas	631437	711012	SMR

3.1.1 Undesignated Cultural Heritage Assets

A preliminary site visit and walkover survey was undertaken in March 2024 in support of the Environmental Impact Assessment Report (EIAR) currently in preparation for the Proposed Scheme.

[3] Historic Environment Viewer (arcgis.com) [Accessed: 12 May 2024].

[4] Historic Environment Viewer (arcgis.com) [Accessed: 12 May 2024].

[5] Historic Environment Viewer (arcgis.com) [Accessed: 12 May 2024].

This site visit included the location of the proposed in-stream works and immediate environs in Brittas Wood.

It was clear during the walkover survey that the area of in-stream works represents a section of the Clodiagh River that has undergone degrees of management and alteration in the past – examples include:

- small boulder groynes located at intervals extending in a perpendicular fashion into the river channel to provide some protection to migrating fish during spate conditions;
- the introduction of weirs; and
- the remains of footings and structures relating to a former footbridge crossing the river along the route of a local footpath/bridleway.

Further modifications outside the area of in-stream works in the vicinity of the river on the east bank include a relict culvert and features, possibly associated with a derelict building of unknown purpose. The features noted in the preliminary site visit in March 2024 were assessed and recorded as part of the wade and metal detection survey which is the subject of this UAIA.

3.2 Previous Archaeological Investigations

As far as can be ascertained, no previous archaeological excavations have taken place within 2km of the Survey Area.[6]

3.3 Stray Finds

Twelve archaeological objects have been found in proximity to the Survey Area, according to the National Museum of Ireland's (NMI) Topographical Files (Table 2).

Table 2: Recorded archaeological objects within 500m of the Survey Area

NMI Ref.	Object Type	Object Description	Townland	Find Circumstances
X3532	Object	Perforated wooden object.	Brittas	-
3167:Wk314	Plate	Perforated plate.	Brittas	-
3162:Wk309	Scoop	Wooden Scoop.	Brittas	-
3107:Wk258	Scoop	Wooden Scoop. Ladle or scoop.	Brittas	-
3107:Wk257	Ladle	Wooden Ladle fragment	Brittas	-
3107:Wk256	Object	Wooden object fragment. Possibly part of a trough or scoop.	Brittas	-
3107:Wk255	Scoop	Wooden Scoop. Ladle or scoop.	Brittas	-

[6] https://excavations.ie/mapsnew/?type=all [Accessed: 6 June 2024].

NMI Ref.	Object Type	Object Description	Townland	Find Circumstances
3107:Wk254	Object	Wooden object fragment.	Brittas	-
3107:Wk253	Scoop	N/A	Brittas	-
3107:Wk252	Ladle	Wooden Ladle.	Brittas	-
3107:Wk251	Scoop	Wooden Scoop. Ladle or scoop.	Brittas	-
3107:Wk250	Scoop	Wooden Scoop. Scoop with wide bowl and long handle.	Brittas	-

3.4 Built Heritage

Eight Built Heritage structures are found within 500m of the Survey Area; these are listed in the Co. Laois Record of Protected Structures (RPS) and in the National Inventory of Architectural Heritage (NIAH) (Table 3; Figure 1, Figure 4–Figure 6). These include a Catholic church (RPS 338; NIAH 12800201), a former Church of Ireland church (RPS 339; 12800202), two shop façades (RPS 340, 341), three pub façades (RPS 342–344), and a house (RPS 963). All of these Protected Structures lie within the Clonaslee ACA.

Table 3: Recorded Built Heritage within 500m of the Survey Area

RPS Ref.	NIAH Ref.	Type	Address	Legal Status
338	**12800201**	Church – St Manman's Catholic Church	Tullamore Road, Clonaslee	RPS
339	**12800202**	Church – St Manman's (former Church of Ireland)	Main Street, Clonaslee	RPS
340	-	Shop façade – W. Morrissey	Main Street, Clonaslee	RPS
341	-	Shop façade – Maher's greengrocer	Main Street, Clonaslee	RPS
342	-	Pub façade – Fallon's	Main Street, Clonaslee	RPS
343	-	Pub façade – M.D. Hickey	The Square, Clonaslee	RPS
344	-	Pub façade – John Feery	Main Street, Clonaslee	RPS
963	-	House	Chapel Lane, Clonaslee	RPS

3.5 Historical Mapping

The first-edition six-inch OS map (surveyed 1838, published 1841) depicts the Clodiagh River within the Survey Area as relatively meandering and wide, compared to the 25-inch OS map (surveyed 1907, published 1909) (Figure 4 & Figure 5). There is no notable difference in the river's course and banks between the 1909 map and the present. Similarly, the riverbanks and land immediately around were depicted as woodland on the 1841 and 1909 maps, as those areas still are. Several field boundaries to

the east and west of these woodlands changed in the period between the 1841 and 1909 maps; none of these changes had any bearing on ditches draining into the Clodiagh River within the Survey Area.

A 'Footbridge', 'Sluice' and 'Weir' are depicted and labelled on the 1909 map, on the Clodiagh River *c.*30m to the south of the Survey Area, as well as a 'Lodge' structure *c.*95m to the south of the Survey Area (Figure 5 & Figure 6). Also marked on this map is a 'Water Works' installation, *c.*85m to the north of the Survey Area.

3.6 Placenames

The Survey Area is located on the boundary between Brittas and Bunastick townlands, in the civil parish of *Cill na mBanbhán* (Kilmanman) within the barony of *Tigh na hInse* (Tinnahinch). According to the Placenames Database of Ireland, the townland name Brittas (*An Briotás*) derives from an Anglo-Norman term *bretasche*, meaning 'palisade'.[7] The earliest reference to this townland name is in the O'Doyne Manuscript of 1593.[8]

The meaning of the name Bunastick (*Bun an Stoic*) is unclear; *bun* refers to 'bottom', 'bottom land', 'foot' or 'base', while *stoc* has multiple meanings ('stock', 'trunk', 'stack', etc.).[9, 10] The OS Parish Namebooks (1838), usually written by John O'Donovan, record the name as *Bun a' stuic*, 'foot of the stock'.[11] According to the Registry of Deeds, the first written reference to this townland name was in 1792.[12]

[7] https://www.logainm.ie/28387.aspx [Accessed: 8 June 2024].

[8] https://www.logainm.ie/28387.aspx [Accessed: 8 June 2024].

[9] https://www.logainm.ie/28390.aspx [Accessed: 8 June 2024].

[10] https://www.tearma.ie/q/stoc/ga/ [Accessed: 8 June 2024].

[11] https://www.logainm.ie/28390.aspx [Accessed: 8 June 2024].

[12] https://www.logainm.ie/28390.aspx [Accessed: 8 June 2024].

4 Methodology

4.1 Survey and Recording Methodology

The wade and metal detection survey was carried out to best practice and in adherence with relevant guidelines and standards, including *Archaeology and Flood Relief Schemes: Guidelines* (NMS 2023), *Framework and Principles for the Protection of the Archaeological Heritage* (DAHGI 1999a), *Policy and Guidelines on Archaeological Excavation* (DAHGI 1999b), and *Standards for the Care and Treatment of Archaeological Objects from Excavations* (NMI 2022).

The survey was carried out under dive survey licence number 24D0179 and detection device consent number 24R0245, issued to Dr Herriott by NMS. The survey included a walkover, wade survey and waded metal detector survey. This survey was conducted by qualified, competent and authorised personnel. The site was visually inspected and scanned by metal detector by licence-holding marine archaeologist Dr Conn Herriott, assisted by surveyor and GIS specialist Alistair Branagh and historical and archaeological researcher Dr Fergal Donoghue of AMS.

The Survey Area was subjected to a systematic walkover and wade survey to confirm the features identified during the previous walkover survey undertaken in March 2024, and to identify any evidence for other cultural heritage remains (structures/features/deposits) and archaeological objects located in or adjacent to the waterbody. All archaeological remains and objects were described, recorded, photographed and their location and extent surveyed. Their condition was also recorded.

Surveyor Alistair Branagh plotted all survey features by Global Positioning System (GPS). The survey covered the entire Survey Area and took place while the level of the Clodiagh River was relatively low, on 1 May 2024. This strategy ensured 100% coverage of the Survey Area.

The survey was based on a survey grid with a base line established in the field for survey control. The survey was performed over the entire length of the water body within the footprint of the proposed debris trap, including a buffer of *c.*20m to either side of the footprint of proposed works.

The metal detector survey identified, investigated, described and recorded the location, nature, type and dimensions of all ferrous and non-ferrous material contained within the Survey Area (i.e., in the waterbody). The metal detector used was a high-performance Minelab Equinox 800 with an 11-inch elliptical search waterproof coil, operating within a 1.5−40kHz frequency range and with discrimination mode to allow non-ferrous, ferrous or all metals to be targeted.

4.2 Weather Conditions

There were sunny spells and scattered showers throughout the duration of the survey.

4.3 Constraints on Methods

Vegetation and turbidity obscured underwater visibility. Many rocks were slippery, which slowed but did not inhibit the survey.

4.4 Health and Safety

The archaeological works complied with all current *Safety, Health and Welfare at Work (Construction) Regulations* (2013). A Health and Safety Plan—i.e., a Risk Assessment Method Statement (RAMS)—was prepared by AMS prior to commencement of the survey. The document outlined the hazards and risks identified in relation to the archaeological works, along with controls to minimise or eliminate these risks, and emergency plans and procedures.

Health and safety are at the core of AMS operations, and we understand the heightened risk when working in riverine locations. Suitable in-water clothing was worn: a dry suit. Breathing apparatus was not required for this type of survey. On-site safety equipment included an emergency medical kit, rescue throw ropes and buoyant throw flotation device. A safety toolbox talk was held at the start of the survey and project risk assessment and other safety documents were on site for review and amendment, as necessary.

5 Survey Results

5.1 Clodiagh River

At the time of the survey, the Clodiagh River was not in spate. The river averaged 5.5m wide and was up to 0.4m deep within the Survey Area (Plate 1). The riverbed was uneven and was composed of stones, cobbles and boulders of varying sizes. Due to natural turbidity exacerbated by sediment unavoidably kicked up by the archaeologist walking in the river, underwater visibility was very limited. However, all ferrous anomalies found in the course of the 100%-coverage metal detecting in the river were investigated and retrieved by hand. Only modern objects (iron fittings and sheeting as well as aluminium drink cans) were found during in-stream metal detecting, but nothing of cultural heritage interest (Plate 2).

The riverbanks (avg. 1.8m high) were earthen with occasional boulders and heavy broadleaf tree and bush overgrowth. It was possible to measure and record the river profile in two locations: one within the Survey Area, and another *c.*70m to the north (Figure 7 & Figure 8). Based on a comparison between the river's current course and that depicted on the 1841 and 1909 OS maps, it appears that the exact location of the riverbanks has changed at least once in the modern era. The upper banks of the Clodiagh River within the Survey Area were most likely altered to provide support for the footpath and culvert to the west of the river. Otherwise, no overt evidence of terracing or revetments are visible within the Survey Area.

5.2 Culvert

Cut into the west bank of the Clodiagh River midway along the Survey Area (ITM 631673, 710755) is a stone and concrete culvert running NE–SW, providing drainage from the field ditch to the west (Plate 3; Figure 7). The riverside footpath is built over the culvert, with railings as protection for pedestrians. The culvert's riverside opening (int. dims. 1m wide, 0.75m high) has a stone lintel. A concrete pipe (int. diam. *c.*0.6m) runs through the culvert (Plate 4). This culvert is modern in date.

5.3 Former Footbridge, Relict Culvert and Related Features

Approximately 35m to the south of the Survey Area are the relict remains of a former footbridge (drawn and labelled on the 1909 OS 25-inch map [Figure 5 & Figure 6]). These remains include the footings of the bridge abutments, a weir, and several other structural features on the west and east bank of the river (Plate 5–Plate 8).

Only the footings of the footbridge abutments have survived. These are rectangular in plan (each *c.*2m long, 1.1–1.3m wide) and are built of concrete and rubble. The weir running between the downstream corners of the bridge abutment footings is also built of concrete, and is *c.*1.1m wide and *c.*0.8m deep

down to the scoured stony riverbed below the weir. This weir is also indicated on the 25-inch OS map (Figure 5).

As well as the footbridge abutment, other structural features on the west bank of the river at the former footbridge include: a relict culvert (int. dims. *c.*1.2m wide, 0.6m high to top of basal collapse) of concrete with a rubble core (also marked and labelled on the 25-inch OS map) which is now mostly full of rubble (Plate 9 & Plate 10; Figure 7); and the lower course of a cut-block wall in which there is a 1.1m-wide gap in the wall lined by blocks with central jambs (Plate 7 & Plate 11). A loose cut-stone block (0.8 x 0.55 x 0.4m) on the western bank of the river may be associated with the wall here.

On the east side of the river, abutting the south side of the footbridge footing, is a stone wall which supports the riverside bridle-path (Plate 6). The upper portion of this wall has collapsed down onto the riverbank. Immediately downstream (i.e., north) from the bridge footing is a rubble and concrete quay-like riverside access platform with a smooth level surface (for fishing in the weir pool?), accessed via a ramp (stone base, concrete cap) running down from the riverside path immediately to the east of the footbridge footing. The bridle-path runs south from the footbridge along the river bank, with access also to the ruins of a lodge structure (drawn on labelled on the 25-inch OS map) set back from the river on higher ground *c.*50m to the south.

5.4 Boulder Groynes

A linear arrangement of four large, flat-topped but not visibly worked boulders (1.2–1.9m long, 0.8–1.1m wide, 0.6m high) ran across the Clodiagh River *c.*15m downstream from the footbridge, with a 1m-wide gap between the boulders in the middle of the river (Plate 8; Figure 7). These boulders provided some protection to migrating fish during spate conditions and helped to limit erosion downstream from the bridge and weir, by defining and maintaining the weir pool.

6 Conclusions and Recommendations

The wade and metal detection survey did not identify any structures, features, deposits or finds of archaeological interest within the Survey Area. However, several cultural heritage features were investigated and recorded to the south of the proposed in-stream works. Based on cartographic and field survey, the culvert in the west bank of the Clodiagh River within the Survey Area (ITM 631673, 710755) was interpreted as relatively modern in date, while the footbridge and associated weir and groynes *c.*30m to the south of the Survey Area were dated to the mid-/late nineteenth century. The only mitigations proposed here against adverse effects on these cultural heritage remains by the proposed works are physical distancing and minimising of visual impacts.

In construction and maintenance of the proposed embankment, it is recommended that care be taken to avoid damaging or visually impeding these cultural heritage features. This will be best managed by barriers during works, and an adequate distancing of the embankment's base from any cultural heritage features.

Similarly for the debris trap, it is recommended that care be taken that the concrete posts supporting this structure do not physically impact or visually obscure from pedestrians any of the cultural heritage features in the Survey Area or vicinity.

Recommendations are subject to the agreement of the National Monuments Service of the Department of Housing, Local Government and Heritage, the National Museum of Ireland and the local planning authority where required and should only be carried out in accordance with the necessary approvals. Please note that the statutory and local authorities may issue alternative and/or additional recommendations/conditions.

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First-edition six-inch OS map (surveyed 1838, published 1841).

25-inch OS map (surveyed 1907, published 1909).

Second-edition six-inch OS map (surveyed 1839, published 1910).

Figures

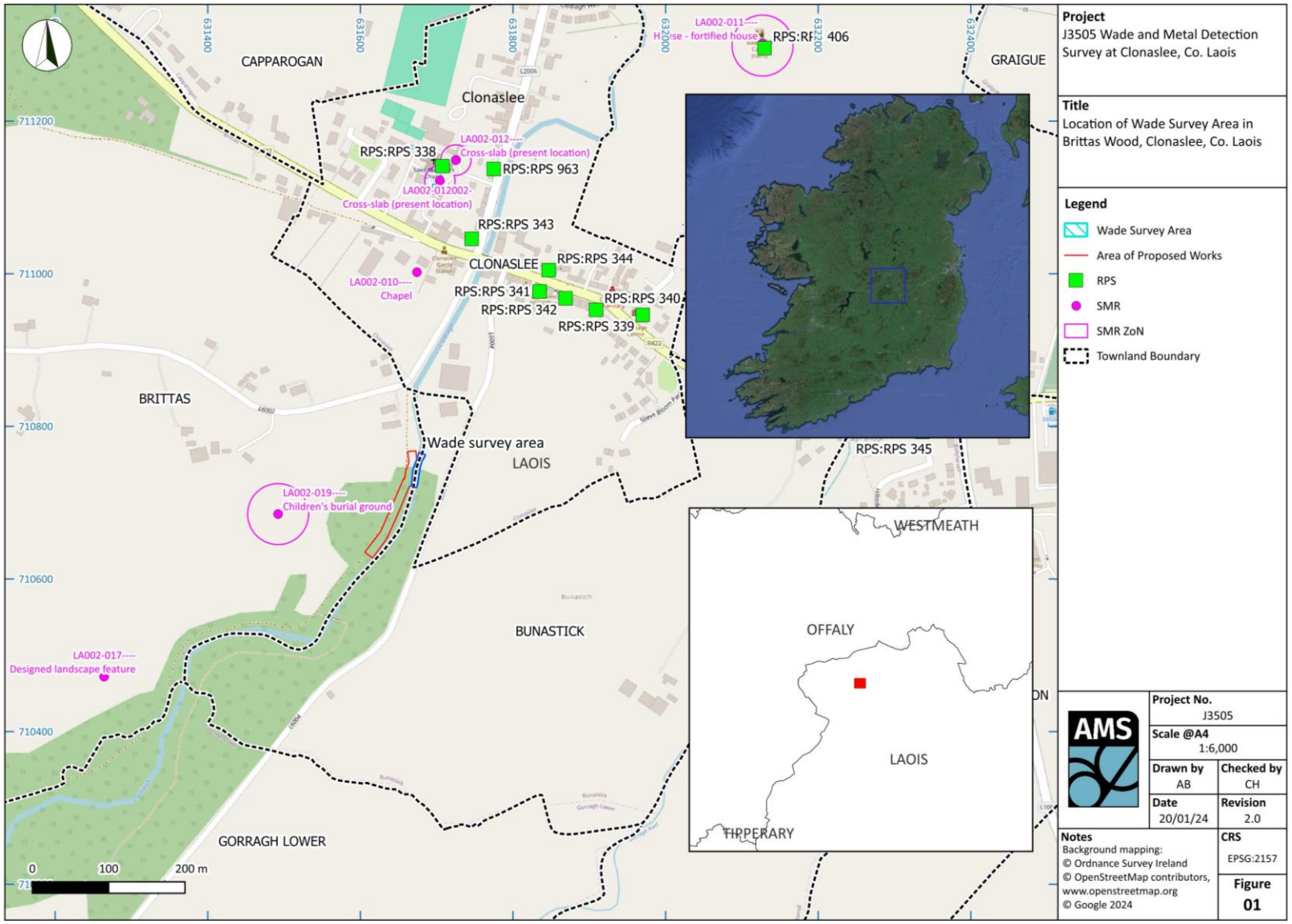

Figure 1: Location of Wade Survey Area in Brittas Wood, Clonaslee, Co. Laois

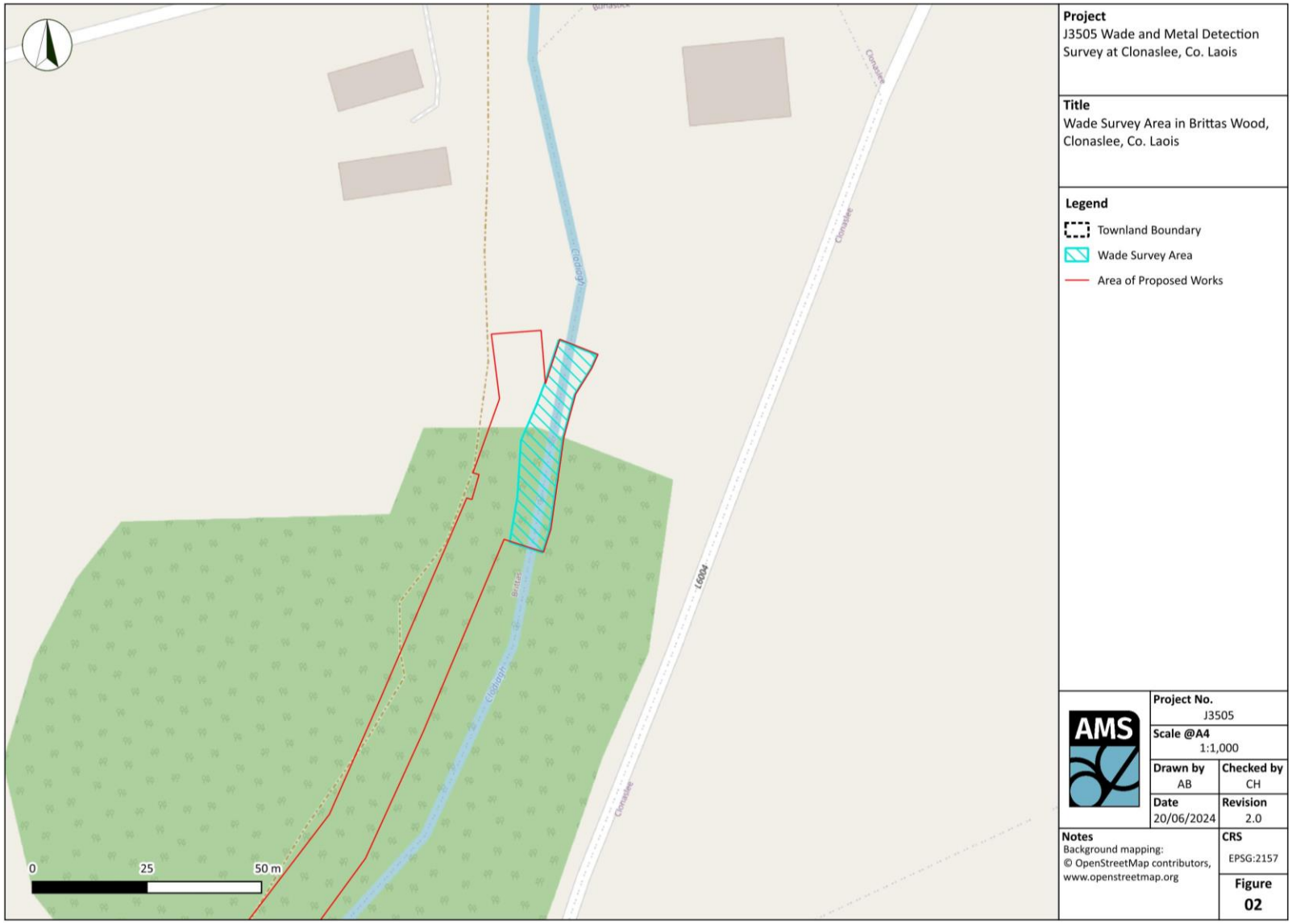

Figure 2: Wade Survey Area in Brittas Wood, Clonaslee, Co. Laois

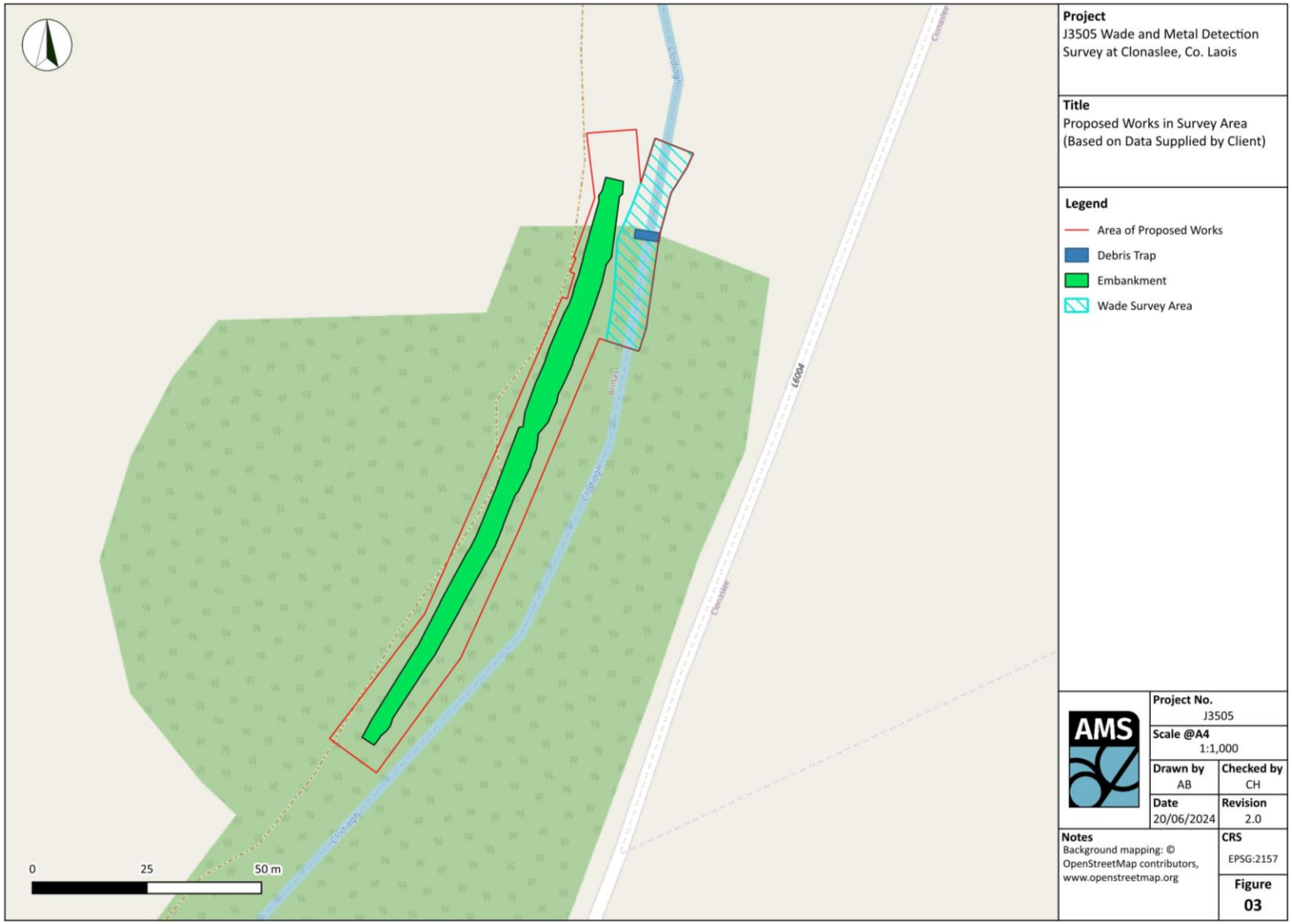

Figure 3: Proposed Works in Survey Area (Based on Data Supplied by Client)

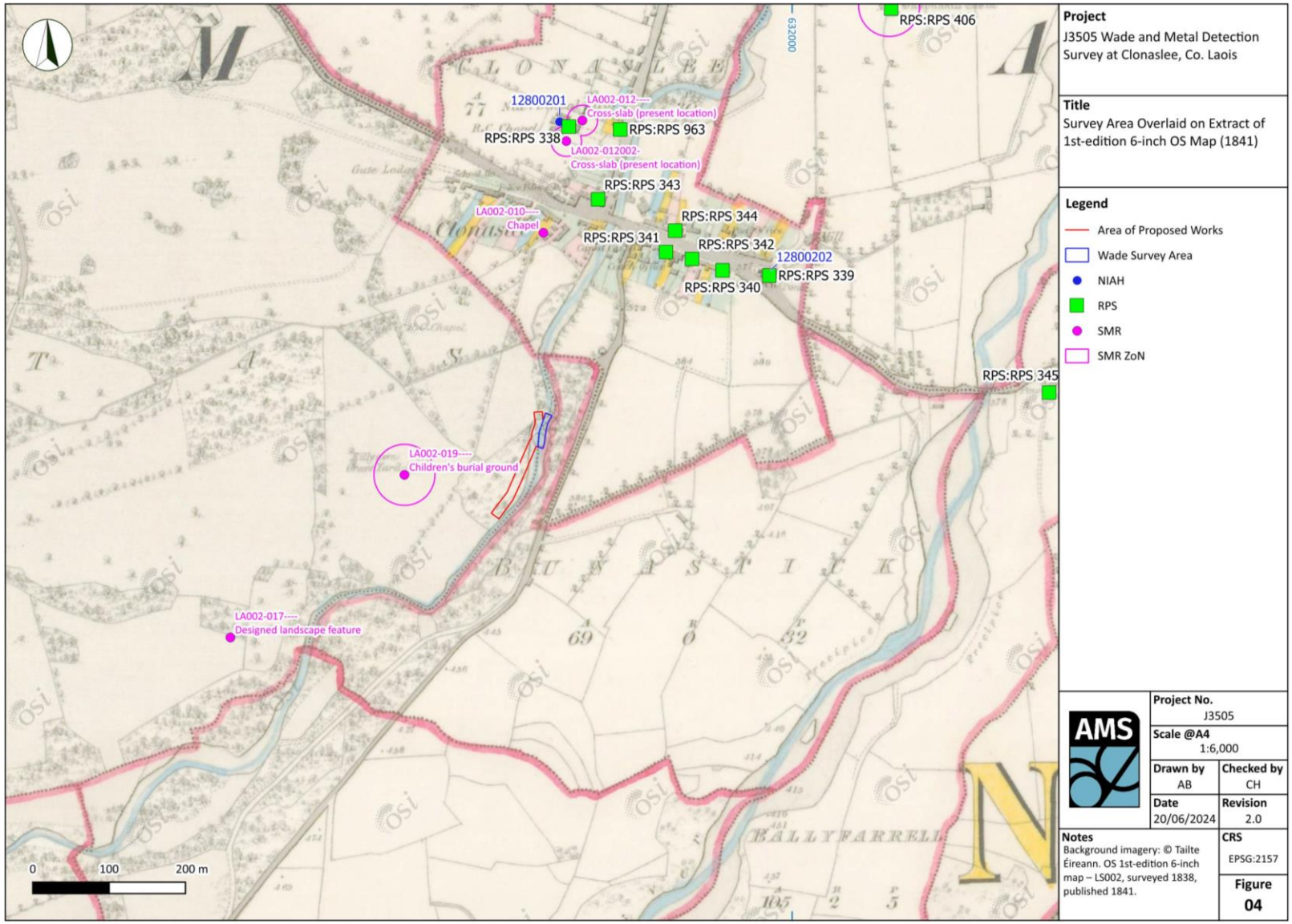

Figure 4: Survey Area Overlaid on Extract of 1st-edition 6-inch OS Map (1841)

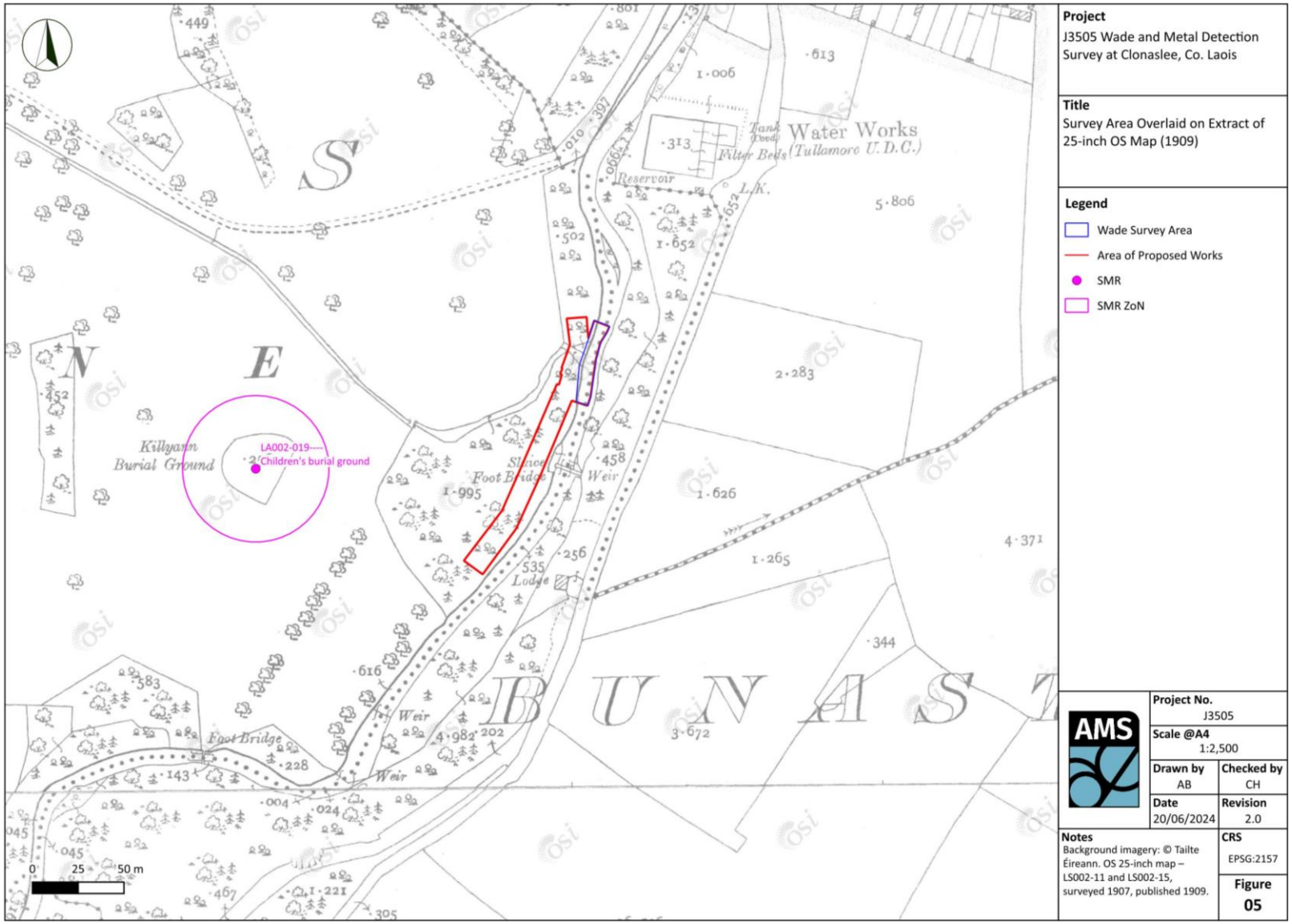

Figure 5: Survey Area Overlaid on Extract of 25-inch OS Map (1909)

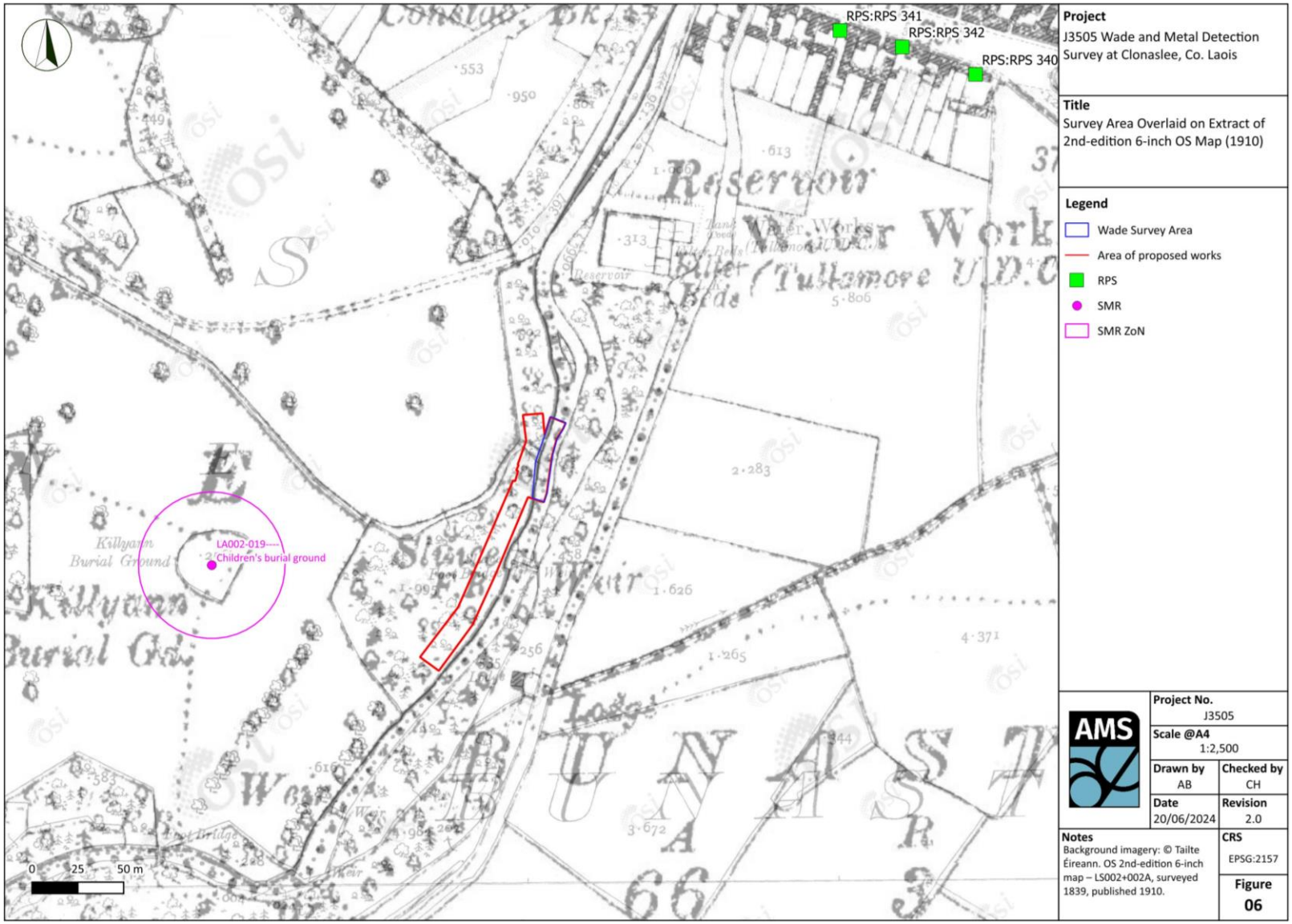

Figure 6: Survey Area Overlaid on Extract of 2nd-edition 6-inch OS Map (1910)

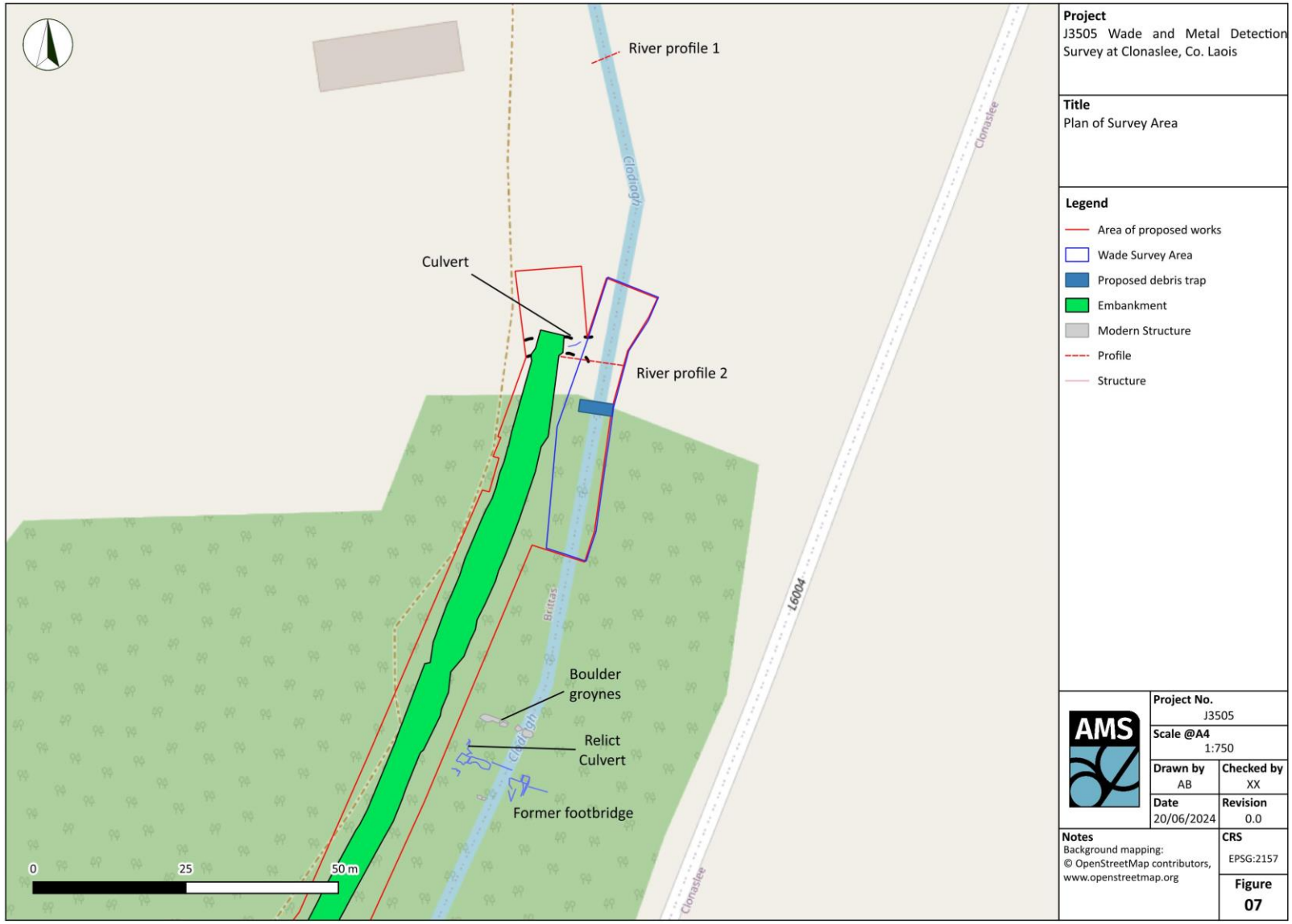

Figure 7: Plan of Survey Area

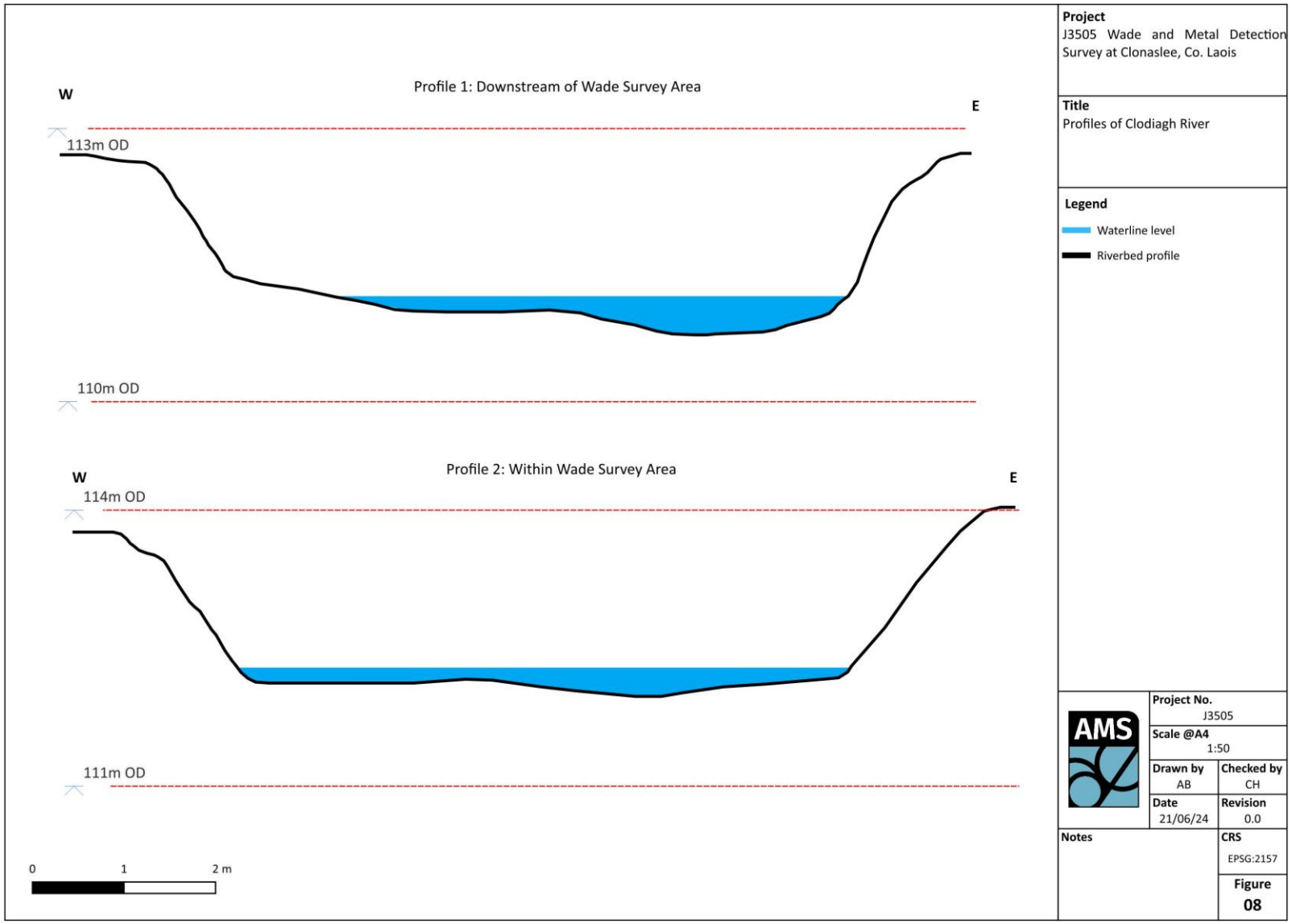

Figure 8: Profiles of Clodiagh River

Plates

Plate 1. The Clodiagh River within the wade and metal detection Survey Area, looking north.

Plate 2. Modern iron fittings and sheeting found during metal detecting in the Clodiagh River.

Plate 3. Location of the in-use culvert on the west bank of the Clodiagh River within the Survey Area, looking west.

Plate 4. Eastern opening of the culvert, looking west.

Plate 5. Site of footbridge, looking northeast.

Plate 6. East bank at site of footbridge, looking east.

Plate 7. Footbridge site, looking west, with wall visible at back left.

Plate 8. Site of former footbridge, looking south, with relict culvert at back right, and boulder groynes in foreground.

Plate 9. Relict culvert adjacent to footbridge in west bank of Clodiagh River, looking west.

Plate 10. Interior of relict culvert at site of former footbridge.

Plate 11. Gap in wall on west bank of Clodiagh River at site of former footbridge, looking west.

Appendix 1: Archive Register

Field Records	Items (Quantity)	Comments	Description
Site drawings (plans)	0	-	-
Site registers (folders)	1	-	On AMS server
Context sheets	0	-	-
Digital photographs	81	-	On AMS server
Security copy of archive	1	-	On AMS server

Appendix 2: Photograph Register

Photo No.	Facing	Description	File name	Scale	Initials & Date
1	NE	Site of former footbridge	GOPR0574	-	CH 1/5/24
2	NE	Site of former footbridge	GOPR0575	-	CH 1/5/24
3	NE	Site of former footbridge	GOPR0576	-	CH 1/5/24
4	NNE	Boulder groynes	GOPR0577	-	CH 1/5/24
5	S	Clodiagh River to S of modern wooden footbridge	GOPR0578	-	CH 1/5/24
6	SE	Modern wooden footbridge	GOPR0580	-	CH 1/5/24
7	SSW	Clodiagh River to S of modern wooden footbridge	GOPR0581	-	CH 1/5/24
8	S	Clodiagh River to S of modern wooden footbridge	GOPR0582	-	CH 1/5/24
9	WNW	Site of former footbridge	GOPR0584	-	CH 1/5/24
10	W	Site of former footbridge	GOPR0585	-	CH 1/5/24
11	NW	Boulder groynes	GOPR0586	-	CH 1/5/24
12	NW	Boulder groynes	GOPR0587	-	CH 1/5/24
13	SSW	Site of former footbridge	GOPR0588	-	CH 1/5/24
14	SSW	Site of former footbridge	GOPR0589	-	CH 1/5/24
15	SSW	Site of former footbridge	GOPR0590	-	CH 1/5/24
16	SSW	Site of former footbridge	GOPR0591	-	CH 1/5/24
17	SSW	Site of former footbridge	GOPR0592	-	CH 1/5/24
18	E	River to N of Survey Area	GOPR0593	-	CH 1/5/24
19	NNE	River to N of Survey Area	GOPR0594	-	CH 1/5/24
20	SE	Metal detecting in river to N of Survey Area	GOPR0595	-	CH 1/5/24

Photo No.	Facing	Description	File name	Scale	Initials & Date
21	SE	Metal detecting in river to N of Survey Area	GOPR0596	-	CH 1/5/24
22	SE	Metal detecting in river to N of Survey Area	GOPR0597	-	CH 1/5/24
23	NE	Metal detecting in river	GOPR0598	-	CH 1/5/24
24	SE	Metal detecting in river	GOPR0599	-	CH 1/5/24
25	NE	Metal detecting in river	GOPR0600	-	CH 1/5/24
26	NE	Metal detecting in river	GOPR0601	-	CH 1/5/24
27	E	Metal detecting in river	GOPR0602	-	CH 1/5/24
28	ESE	Metal detecting in river	GOPR0603	-	CH 1/5/24
29	ESE	Metal detecting in river	GOPR0604	-	CH 1/5/24
30	ESE	Metal detecting in river	GOPR0605	-	CH 1/5/24
31	ESE	Metal detecting in river	GOPR0606	-	CH 1/5/24
32	-	Modern metal objects found in river during metal detecting	GOPR0607	-	CH 1/5/24
33	-	Modern metal objects found in river during metal detecting	GOPR0608	-	CH 1/5/24
34	NNE	Boulder groynes	GOPR0609	-	CH 1/5/24
35	SE	River to N of former footbridge site	GOPR0610	-	CH 1/5/24
36	SSW	Former footbridge site	GOPR0612	-	CH 1/5/24
37	SSW	Former footbridge site	GOPR0613	1m	CH 1/5/24
38	SSW	Former footbridge site	GOPR0614	1m	CH 1/5/24
39	SSW	Former footbridge site	GOPR0615	1m	CH 1/5/24
40	ESE	Former footbridge site	GOPR0616	1m	CH 1/5/24
41	SE	Former footbridge site	GOPR0617	1m	CH 1/5/24
42	E	Former footbridge site	GOPR0618	1m	CH 1/5/24

Photo No.	Facing	Description	File name	Scale	Initials & Date
43	E	Former footbridge site	GOPR0619	1m	CH 1/5/24
44	E	Masonry block on riverbank immediately to S of former footbridge site	GOPR0620	1m	CH 1/5/24
45	E	Masonry block on riverbank immediately to S of former footbridge site	GOPR0621	1m	CH 1/5/24
46	NNE	Former footbridge site	GOPR0622	1m	CH 1/5/24
47	NNE	Survey Area	GOPR0624	1m	CH 1/5/24
48	NNE	Survey Area	GOPR0625	1m	CH 1/5/24
49	W	W riverbank within Survey Area	GOPR0626	1m, 1m	CH 1/5/24
50	W	W riverbank within Survey Area	GOPR0627	1m, 1m	CH 1/5/24
51	W	W riverbank within Survey Area	GOPR0628	1m, 1m	CH 1/5/24
52	SSW	Survey Area	GOPR0629	1m	CH 1/5/24
53	SSW	Survey Area	GOPR0630	1m	CH 1/5/24
54	SSW	Survey Area	GOPR0631	1m	CH 1/5/24
55	NNE	Drystone field-wall/structure at top of cliff	GOPR0632	-	CH 1/5/24
56	NNE	Survey Area	GOPR0633	-	CH 1/5/24
57	E	E riverbank within Survey Area	GOPR0634	1m	CH 1/5/24
58	E	E riverbank within Survey Area	GOPR0635	1m	CH 1/5/24
59	W	In-use culvert on W riverbank within Survey Area	GOPR0637	1m, 1m	CH 1/5/24
60	W	In-use culvert on W riverbank within Survey Area	GOPR0638	1m, 1m	CH 1/5/24
61	W	In-use culvert on W riverbank within Survey Area	GOPR0639	1m, 1m	CH 1/5/24
62	W	In-use culvert on W riverbank within Survey Area	GOPR0640	1m, 1m	CH 1/5/24
63	W	In-use culvert on W riverbank within Survey Area	GOPR0641	1m, 1m	CH 1/5/24
64	N	In-use culvert on W riverbank within Survey Area	GOPR0642	1m, 1m	CH 1/5/24

Photo No.	Facing	Description	File name	Scale	Initials & Date
65	N	In-use culvert on W riverbank within Survey Area	GOPR0643	-	CH 1/5/24
66	W	Former footbridge site	GOPR0645	1m	CH 1/5/24
67	WSW	Relict culvert at former footbridge site	GOPR0646	1m	CH 1/5/24
68	SW	Relict culvert at former footbridge site	GOPR0647	1m	CH 1/5/24
69	SW	Relict culvert at former footbridge site	GOPR0648	1m	CH 1/5/24
70	SW	Relict culvert at former footbridge site	GOPR0649	1m	CH 1/5/24
71	SW	Relict culvert at former footbridge site	GOPR0650	-	CH 1/5/24
72	SW	Relict culvert at former footbridge site	GOPR0651	1m	CH 1/5/24
73	NE	Former footbridge site	GOPR0652	-	CH 1/5/24
74	NE	Former footbridge site	GOPR0653	-	CH 1/5/24
75	W	Wall on W riverbank at former footbridge site	GOPR0654	1m, 1m	CH 1/5/24
76	W	Wall on W riverbank at former footbridge site	GOPR0655	1m, 1m	CH 1/5/24
77	E	Wall on W riverbank at former footbridge site	GOPR0656	1m, 1m	CH 1/5/24
78	E	Wall on W riverbank at former footbridge site	GOPR0657	1m, 1m	CH 1/5/24
79	E	Wall on W riverbank at former footbridge site	GOPR0659	1m, 1m	CH 1/5/24
80	-	Modern objects found in river during metal detecting	GOPR0661	0.4m	CH 1/5/24
81	-	Modern objects found in river during metal detecting	GOPR0662	0.4m	CH 1/5/24

Appendix 3: Summary of Wade and Metal Detection Survey

On 1 May 2024, an archaeological wade and metal detection survey was carried out along a 45m-long stretch of the Clodiagh River in Brittas and Bunastick townlands, near Clonaslee, Co. Laois. The survey was undertaken by licensed marine archaeologist Dr Conn Herriott, surveyor Alistair Branagh and historical and archaeological researcher Dr Fergal Donoghue of Archaeological Management Solutions (AMS) under dive survey licence number 24D0179 and detection device consent number 24R0245, issued to Dr Herriott by the National Monuments Service (NMS).

The Survey Area was inspected by detailed visual walkover wade and metal detection survey in order to identify any archaeological objects, features or deposits which may have been present. Several cultural heritage features were investigated and recorded in the course of this survey. Based on cartographic and field survey, a culvert in the west bank of the Clodiagh River within the Survey Area (ITM 631673, 710755) was interpreted as relatively modern in date, while a footbridge and associated weir and groynes c.*30m to the south of the Survey Area were dated to the mid-/late nineteenth century.*