

**Final Report**  
**of the Woodstown Working Group**  
**to the Minister for the Environment, Heritage and Local**  
**Government**  
**on the future preservation and archaeological investigation of**  
**the national monument site at Woodstown, Co. Waterford**

**January 2008**

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**Appendix 3:** ACS Woodstown 6 Supplementary Research Project Report.

Attached as a separate document

### **Background to the Final Report**

This report should be read in conjunction with, and as a continuation of, the Woodstown Working Group's Interim Report of May 2006 to the Minister for the Environment, Heritage and Local Government.

The Minister agreed to the Working Group's recommendation in the 2006 Interim Report for a Supplementary Research Project to be undertaken. The aims of this project were: -

- To carry out an **academic review** of all information available on the national monument including the results of excavations, radiocarbon dates, geophysical and underwater surveys, paleo-environmental work, aerial photographs and relevant historical sources and to place the site in its historical and archaeological context. This work would include a summary and review of the archaeological assessments and investigations carried out in the surrounding townlands and a desktop assessment and field survey of the area around Licketstown, Co. Kilkenny, across the River Suir from Woodstown.
- To conduct **small scale and limited archaeological excavations** and, if necessary, geophysical work to help elucidate the nature, extent and date of the national monument site. Special emphasis was placed on defining the eastern extent of the site and in clarifying the existence of at least one house site.
- **To produce a report** incorporating the above elements and giving a considered assessment of the nature, extent and date of the national monument site and a **statement of its significance**.
- **To produce a full report on the excavations** conducted as part of the project including specialist reports, conservation of finds etc.

Following an open competition in compliance with national and EU public procurement procedures the contract for the project was awarded on 14 December 2006 to Archaeological Consultancy Services (ACS) Limited. This company had also carried out the archaeological investigations along the route of the original and

alternative routes of the N25 Waterford City By-Pass and produced the Woodstown 6 Archaeological Report and

o has a very detailed knowledge of the archaeology of the area in question. The ACS Ltd. report on the Supplementary Research Project is appended as a separate document to the Final Report at Appendix 3 and includes an academic review by Mr. Stephen H. Harrison MA MIAI.

### **Extent of the National Monument Site**

Central to developing a strategy for the future protection of and archaeological research at the Woodstown National Monument (hereinafter referred to as the “Woodstown site” or “the site”) is a clear understanding of the extent of the site. The Working Group made it clear in the 2006 Interim Report that it did not know the full extent of the site and hence recommended the supplementary research project to, inter alia, fill informational gaps in this regard.

There had been some suggestion previously that the site of the national monument *may* extend further onto lands now proposed for the rerouting of the by-pass, notably onto lands owned by Mr. Gerard Halley and to the east of the known site. Views had also been previously expressed that the Woodstown site *may* be part of a wider historical or archaeological landscape and *may* have been the original site of what is now the city of Waterford. Kilkenny County Council had also raised the issue of a potentially related site across the River Suir at Licketstown, Co. Kilkenny. At the time of the 2006 Interim Report no firm evidence had been produced in support of such suggestions. Therefore, specific elements of the tender for the supplementary research project addressed the archaeological investigation of the Licketstown area and required targeted excavations to investigate the extent of the site and identify its probable eastern boundary.

Up to the time of the 2006 Interim Report no evidence of any site extension had been discovered by the National Roads Authority or Waterford City Council in their geophysical and ongoing archaeological investigations of the rerouted N25 Waterford City By-Pass. In April 2006 Mr. Halley had commissioned his own geophysical investigations of lands in his ownership. The Working Group met with Mr. Halley in Waterford City on 17 October 2006 at their fourth meeting to hear his views first hand in relation to the site and Mr. Halley subsequently released his commissioned geophysical report to the Working Group to help establish the extent of the national monument site. This information was used in conjunction with additional geophysical investigations undertaken as part of the supplementary research project to target a number of specific areas for limited excavation with regard to investigating the extent of the site.

An inter-tidal and dive survey of the River Suir and its shoreline in the vicinity of the Woodstown site was conducted by the Underwater Archaeology Unit (UAU) of the National Monuments Service in August 2006. The results of this survey were presented to a meeting of the Working Group on 17 October 2006. The UAU survey concluded that although no evidence of exposed archaeological remains was encountered at Woodstown there remained a high potential for the retention of buried archaeology in the foreshore silts along the river course there. One timber from a potential wooden structure was discovered at Killoteran and samples from this timber were sent to Queens University Belfast for radiocarbon dating. However, in the view of the UAU the river dynamics, strong tidal flows and river currents suggested it was highly unlikely that the shoreline at Woodstown served as a harbour.

A copy of the UAU report presented in October 2006 together with the subsequent radiocarbon dating results from December 2007 are attached at Appendix 2.



### **Finding**

The Working Group is of the view based on all available information (including the Waterford City Council sponsored investigations of both the original and alternative routes of the N25 Waterford City By-Pass, geophysical investigations commissioned by Mr. Halley and the ACS Ltd. report on the Supplementary Research Project carried out on behalf of the Working Group) that the major and central part of the site appears to be within two contiguous D-shaped enclosures both of which are defined by two concentric ditches. These enclosures lie within the so-called Fields 22 [southern field] and Field 23 [northern field]. With the exception of some potential areas of small-scale industrial activity, most of which were identified during the 2007 excavations, archaeological material appears to be focused within the area enclosed by the ditches.

Maps of the Woodstown national monument site are attached at Appendix 1.

Field 22 contains a sub-rectangular structure (Testing Area 1) thought to be, on balance, industrial rather than domestic in nature, though the supplementary research report from ACS Ltd. admits that while the structure's shape and construction is unique, its function, construction or origins are not fully understood.

Outside the enclosure ditch in Field 22 there is an archaeological feature (thought to be a hearth or fire pit) at Testing Area 11, which is clearly Viking in date containing extensive archaeological evidence for Viking Age metal working and finishing. There was also the discovery of an interesting burnt mound-like feature of unknown date exposed at Testing Area 7, possibly indicative of industrial dumping and a large deep pit exposed at Testing Area 9, again of unknown date, which may also indicate outlying industrial activity. Testing Area 10 also contained a number of features of a possible archaeological nature. However, the exact nature of all these potentially interesting discoveries can only be determined following post-excavation analysis and interpretation.

ACS Ltd. has conclusively demonstrated, through a combination of archaeological and geophysical interpretation, that the enclosure ditch in Field 22 does not extend any further to the east than first interpreted during the archaeological and geophysical investigations undertaken between 2003 – 2005.

No further archaeological features or deposits were exposed within Field 23 with the exception of a ditch exposed at Testing Areas 3, which may indicate some industrial purpose for a nearby possible D-shaped enclosure but no finds were recovered and this hypothesis is purely speculative.

Based on the recent excavation evidence it is postulated that the manufacturing element of the site may have been focused on the south-western part of the Woodstown enclosure with domestic activity dominating the north-eastern area.

An examination of historical, cartographic and photographic sources together with a field survey of Lickestown on the northern banks of the River Suir in Co. Kilkenny did not reveal any evidence for a Viking or Early Medieval site, either associated with or independent of the Viking site at Woodstown.

In summary, the supplementary research project results strongly support the view that the main body of occupation and activity at the Woodstown site took place within the two enclosures bordered on one side by the River Suir. Although some archaeological material, Viking and potentially Viking in date, was exposed particularly outside the Field 22 enclosure, this material appears to be representative of small-scale industrial activity. The core Woodstown national monument is confirmed essentially as that discovered and delineated in the previous 2003 – 2005 investigations. There is no evidence to support any substantive extension of the site, or of it being part of an even larger site as had been previously suggested.

### **Nature of the Site**

There had been some debate leading up to the Working Group's 2006 Interim Report as to the primary usage(s) of the Woodstown site e.g. military fort ("Longphort"), trading centre, settlement etc.

A specific requirement of the supplementary research project was to address the nature of the site insofar as was practicable. This requirement was duly addressed in the academic review by Stephen H. Harrison MA MIAI. In addition, the targeted excavation carried out as part of the project has produced considerable evidence of industrial type activity and also trading activity. The finds made during the excavation phase were predominantly suggestive of industrial or craft working activities having taken place at the site and that it was also an important trading centre.

### **Finding**

The Working Group is satisfied that the form of occupation at Woodstown encompassed many activities. As well as domestic activity, manufacturing and craft-working are indicated from the supplementary research project as being important and extensive activities on the Woodstown site and it was also an important and prominent centre for trading and exchange with abundant evidence of an on-site trading economy.

Harrison in his academic review is clear that Woodstown should not be seen as a purely military site. The site was never particularly well defended nor are the artefacts recovered from it exceptionally military in character. There is clear evidence for domestic and industrial activity and that the site was part of a complex economic network, which at some levels extended beyond Ireland. The quantity of weights found at the site clearly demonstrates the importance of commercial transactions using bullion. This form of transaction reflects the culture of commerce of Scandinavian practice. To a lesser degree the site also served as a production centre, most notably of iron artefacts. In this context the presence of ship rivets at the site may indicate some ship breaking or ship repair or even ship building in the Scandinavian tradition taking place at Woodstown. The assemblage of artefacts discovered at Woodstown clearly demonstrates a remarkable scale of wealth, that the inhabitants were effective participants in commercial activities and that at least some of them were of high status, as evidenced by the presence of one of the best-furnished Viking graves ever discovered in Ireland.

Metalworking and, to some extent, manufacturing was being carried out on the site as evidenced by the large amount of industrial artefact material which was recovered during the 2003 – 2005 excavations and also by the 2007 investigations. All available evidence for Field 22 strongly suggests that industrial activity was concentrated in this area. The recovery of a large amount of crucible fragments, while suggesting the manufacture of either glass or small metal objects requires further materials analysis. Geophysics and excavation suggest a high concentration of activity within the enclosure itself while at Testing Area 11 there was evidence of outlying industrial processes clearly dating to the Viking period (9<sup>th</sup> and 10<sup>th</sup> centuries). Rotary sharpening stones indicate that part of the industrial process carried on here involved the finishing of metal tools or blades.

The apparent lack of a pronounced military character to the site demonstrates Woodstown's importance to ongoing debates on the nature of early Viking Age Scandinavian and Hiberno-Norse settlements in general, on the definition of "*longphuir*" fortifications and on the origins of urbanisation. As such, the evidence recovered from the site is, and will continue to be, of significance not just at an Irish but at a European level in providing vital comparative evidence for future research on similar sites.

In summary, the Working Group concurs with the view expressed in the supplementary research project that the settlement at Woodstown included domestic and industrial activities as well as considerable trade and exchange.

### **Statement of Significance of the Site**

A specific requirement of the supplementary research project was to produce a statement of the site's significance in terms of its national and international archaeological and historical contexts, including a chronological dating of the site if possible. This assessment will help to inform the general public and scholars more fully and assist the framing of a long-term strategy for the site.

ACS Ltd. and Stephen Harrison have produced the requisite Statement of Significance (see Chapter 5 of the ACS Ltd. Report at Appendix 1). Harrison states at Page 86 : -

(The archaeological research undertaken to date indicates) "...that Woodstown was a substantial D-shaped enclosed settlement on the south bank of the river Suir which was occupied by a distinctive Hiberno-Norse community at a point or points in the 9<sup>th</sup> and 10<sup>th</sup> centuries, with the evidence for several phases of activity across the site suggesting that it was active for some considerable time. Although the site may have had a military function, it was also a significant trade centre as demonstrated by the quantity of lead weights and hack silver, and had considerable on-site manufacturing activity, including iron, copper alloy, silver, glass and perhaps lead-working, woodworking, ship repair and textile production. As such it is one of the most productive unwaterlogged sites of Early Medieval date ever discovered in Ireland...".

### **Finding**

The Working Group is of the view that the Woodstown National Monument is a site of fundamental importance not simply on a regional or national level but internationally. As the supplementary research project report clearly states it is one of the most productive dry land sites of Early Medieval date ever discovered in Ireland.

The site was interpreted previously as a defended riverside settlement with an outlying area of associated industrial activity probably dating between 800 A.D. – 1100 A.D. A Viking grave was discovered, immediately outside the enclosure in Field 23, just over 20 metres outside the enclosure entrance. In Britain and Ireland there are no more than 200 known Viking Age burials with weapons. Woodstown possesses one of the best furnished graves of this type ever discovered in Ireland and serves to underline that this community was both wealthy - at least some of them being of high status - and was seeking to establish itself permanently within the locality. The Viking burial is only one of a handful to be discovered during archaeological investigation. It would also appear to be the only site known in Britain or Ireland where a burial can be directly related to a contemporary settlement with absolute confidence.

Up to the time of the supplementary research project over 5,300 objects were unearthed at Woodstown although at least 12% are post-medieval to modern in date and only 11% came from secure archaeological contexts. The 2007 investigations unearthed a further 699 objects, 257 of which are from stratified archaeological deposits and the majority of which are of Viking Age date. There is no evidence to support early medieval activity before the beginning of the Viking Age. The lack of medieval pottery discoveries indicates abandonment of the site before the increase in pottery use associated with the later Hiberno-Norse and early Anglo-Norman periods in neighbouring Waterford. Overall, there is clear evidence associating the site with the Viking period. The large number of lead weights and silver artefacts discovered indicates a trade based economy of Scandinavian character.

From the discoveries of silver at Woodstown, remarkable in both form and quantity, and of lead weights, and in the utilisation of silver as part of a weight based economy, it is apparent that Woodstown falls firmly into the Scandinavian tradition. There can be little doubt that many, if not all, of the settlement's occupants were either Scandinavian, or had strong insular Scandinavian associations.

Manufacturing and metalworking, especially iron working and potentially ship repair, as well as textile manufacturing and craft production were undertaken on the Woodstown site. The structure discovered in Testing Area 1, whilst puzzling, strongly suggests a more industrial function than anything else. Items were manufactured *in situ* either for use on the site or for trade purposes.

Ongoing post-excavation work will continue to expand our understanding of an extraordinary assemblage that promises to provide an insight into the exchange and manufacturing activities at the site. Woodstown must be considered one of the most important early Viking Age trading centres yet discovered in Ireland.

Activity on the site would seem to have taken place at a point or points in the 9<sup>th</sup> and 10<sup>th</sup> centuries. It seems likely that the Woodstown site was established by 860 A.D. at latest and could conceivably have been in existence a decade or two earlier. Its fate at the end of the 9<sup>th</sup> century is unknown, but there is clear evidence to suggest that it continued in use, or that it was reoccupied in the 10<sup>th</sup> century. At some point during that century, it was effectively superseded by Waterford, possibly after a period of overlap.

There is increasing evidence that insular Scandinavian groups in both England and Ireland could and did construct D shaped enclosed sites at river banks, a model which Woodstown clearly follows, but, while sites of this type are clearly important, it should not be assumed that all Scandinavian sites take this form, or that Woodstown is, as yet, anything other than exceptional.

In conclusion, the Woodstown site would appear, as demonstrated by means of archaeological and historical research, to have been occupied by a distinctive Scandinavian community in the 9<sup>th</sup> and 10<sup>th</sup> centuries. The site consisted of a large enclosed settlement constructed on the southern bank of the River Suir, largely contained within two contiguous D shaped ditch and bank defences with one or more entrances. This settlement existed for a considerable amount of time and involved at least several phases of activity, settlement or resettlement. The settlement, although armed and with some military aspects, appears to have been a significant centre for manufacturing and trade.



Woodstown is the only site of this type in Ireland that has undergone archaeological excavation and the only one anywhere in Ireland or Britain to have produced evidence from occupation levels. It must be considered exceptional both because of the apparent length of occupation at the site and the range of economic activities taking place there.

The Woodstown site provides a rare opportunity to study a Scandinavian settlement of this period outside Scandinavia itself. To date this is a settlement form of which very little is known. The extraordinary assemblage of finds promises new insights into economic activity in this period and potentially into the origins of urban settlement in Ireland.

The supplementary research project report further supports the decision by the relevant State authorities to preserve the Woodstown site as a national monument.

## **Recommendations of the Working Group**

The Working Group makes the following recommendations to the Minister for the Environment, Heritage and Local Government as to the long-term strategy for the preservation and archaeological investigation of the site of the Woodstown national monument.

### **Legal ownership of and protective mechanisms for the site**

The Woodstown site in its entirety, including targetted areas which lie outside the core area as identified in the 2007 assessment, is considered by the Minister for the Environment, Heritage and Local Government to be a national monument as defined under the National Monuments Act 1930 (as amended).

Following a Compulsory Purchase Order (CPO) process part of the national monument was previously thought to be in the control of Waterford City Council with regard to the road-take of the original route of the N25 Waterford City By-Pass. The remainder of the site, being the area to the east of the road-take in Fields 22 and 23, was considered to reside in the ownership of a private individual, Mr. Gerard Halley. Mr. Halley had owned the entirety of the Woodstown site prior to the initiation of the CPO process.

However, following the non-completion of the Compulsory Purchase Order process on foot of the rerouting of the proposed N25 Waterford City By-Pass away from the Woodstown site, Waterford City Council is of the view that the entirety of the site reverts back into the private ownership of Mr. Halley.

The site is not currently recorded on the statutory Record of Monuments and Places under the National Monuments (Amendment) Act 1994 nor on the statutory Register of Historic Monuments under the National Monuments (Amendment) Act 1987. As such it currently attracts no formal legal protective designation under the National Monuments Acts 1930 to 2004.

### **Site in Local Authority or Ministerial Control**

*If a portion of the site was to have continued to reside in the control of Waterford City Council, it could have been thus protected by the Council with the attendant responsibility for site protection, maintenance and management falling to the Council. Alternatively, the Council could have transferred responsibility for the site (in the form of its ownership or guardianship) to the Minister for the Environment, Heritage and Local Government.*

The Minister retains the power under national monuments legislation, with the consent of the Minister for Finance, to acquire any national monument, or part thereof, or any land in the vicinity of such a monument intended to be used for the provision of facilities for persons accessing the monument, either by agreement or compulsorily, and whether or not the said monument is in the guardianship of a local authority or of the Minister and whether or not a preservation order is in force.

If the site were taken into the guardianship of, or acquired by, the Minister for the Environment, Heritage and Local Government then the site would fall within the legal definition under the National Monuments Act 1930 (as amended) of a national monument in the guardianship or ownership of the Minister for the Environment, Heritage and Local Government and, thus, would automatically be afforded the fullest protection available under the National Monuments Acts 1930 to 2004. Any person seeking to undertake works at or in relation to such a national monument requires the written consent of the Minister for the Environment, Heritage and Local Government and such consent may only be granted following consultation with the Director of the National Museum of Ireland. It is an offence to carry out works without the relevant Ministerial consent and conviction of such an offence carries significant monetary and/or imprisonment penalties. It is also an offence under Section 2 of the National Monuments (Amendment) Act 1987 to use or be in possession of a detection device in or at the site of, inter alia, a national monument in the ownership or guardianship of the Minister, or a local authority, without the consent of the Minister for the Environment, Heritage and Local Government. Conviction of such an offence carries significant monetary and/or imprisonment penalties.

Ownership or guardianship of the site by the Minister would bring with it associated legal responsibilities and attendant costs with the site being maintained and managed on the Minister's behalf by the Office of Public Works.

### **Site in Private Ownership**

Any portion of the site of the national monument retained in private ownership should be accorded the highest possible level of protection available under the National Monuments Acts. To achieve this end there are a number of legal options available under the Acts viz.

- The national monument could be placed on the statutory Register of Historic Monuments by the Minister for the Environment, Heritage and Local Government to afford it a basic level of protection under the National Monuments Acts (Section 5 of the National Monuments (Amendment) Act 1987). Placing the site on the Register of Historic Monuments would require that the owner notifies the Minister for the Environment, Heritage and Local Government in writing of any proposed work at or in relation to the monument two months before commencing such work. It is an offence to contravene these statutory provisions and conviction of such an offence carries significant monetary and/or imprisonment penalties. It is also an offence under Section 2 of the National Monuments (Amendment) Act 1987 to use or be in possession of a detection device in or at the site of a monument which stands registered in the statutory Register of Historic Monuments, without the consent of the Minister for the Environment, Heritage and Local Government. Conviction of such an offence carries significant monetary and/or imprisonment penalties.
- The national monument could be placed by the owner into the guardianship of either the local authority in whose functional area the monument is situate or of the Minister for the Environment, Heritage and Local Government (Section 5 of the National Monuments Act 1930).
- The national monument could be gifted by the owner to the local authority in whose functional area the monument is situate or to the Minister for the Environment, Heritage and Local Government (Section 10 of the National Monuments Act 1930).
- Should the Minister for the Environment, Heritage and Local Government be of the opinion that the national monument is in danger of being, or is actually being, destroyed, injured or removed or is falling into decay through neglect he can make it the subject of a preservation order (Section 8 of the National

Monuments Act 1930 (as amended). Any person seeking to undertake works at or in relation to a national monument the subject of a preservation order requires the written consent of the Minister for the Environment, Heritage and Local Government and such consent may only be granted following consultation with the Director of the National Museum of Ireland. It is an offence to carry out works without the relevant Ministerial consent and conviction of such an offence carries significant monetary and/or imprisonment penalties. It is also an offence under Section 2 of the National Monuments (Amendment) Act 1987 to use or be in possession of a detection device in or at the site of a national monument the subject of a preservation order without the consent of the Minister for the Environment, Heritage and Local Government. Conviction of such an offence carries significant monetary and/or imprisonment penalties.

- A preservation order would not place an upkeep and maintenance responsibility on a private owner.
- The national monument could be taken into guardianship by the Minister for the Environment, Heritage and Local Government on foot of the making of a preservation order (Sections 9(2) of the 1930 Act).
- The national monument could be acquired by the Minister for the Environment, Heritage and Local Government (Section 11 of the National Monuments (Amendment) Act 1994).

### **Recommendation**

As it now appears that the Woodstown national monument site is retained in its entirety in private ownership, the Working Group recommends as a first step that the site should be placed on the Register of Historic Monuments to afford it basic legal protection under the National Monuments Acts.

In addition and going forward, discussions regarding the future preservation and archaeological investigation of the Woodstown national monument site including an adequate buffer zone should be entered into with the private owner, Mr. Halley. In the view of the Working Group it would be preferable if, on foot of such discussions and with the agreement of the owner, the site could be acquired by, or, failing that, taken into the guardianship of, either the relevant local authority or the Minister for the Environment, Heritage and Local Government. Such an agreed course of action would take the burden of ongoing protection, upkeep and maintenance of the national monument from the private owner.

Should there at any future time be a perceived danger of the site while in continued private ownership, being destroyed, injured or removed, or if it were to be perceived as falling into decay through neglect, then the Working Group recommends that consideration should be given by the Minister for the Environment, Heritage and Local Government to the placing of a preservation order thereon.

### **Physical security of the site**

Since the end of June 2007 the security regime on the site operated on behalf of the National Roads Authority has ceased. There was no suggestion during this regime of any attempt to interfere with, vandalise or “treasure hunt” the site. The site is being regularly monitored as to its continued archaeological integrity by local Waterford based staff of the National Monuments Service and again to date there has been no suggestion of any threat or perceived threat to the site. Given the rural nature and relative openness of the site, particularly on the side bounded by the River Suir, it would be almost impossible to deter a determined trespasser without draconian security measures being put in place. However, the site is currently owned by Mr. Halley and is in the vicinity of a number of dwellinghouses and of the Waterford Institute of Technology campus. This “neighbourhood watch” type situation affords it some public scrutiny, which should act as a deterrent to any intending interloper though cannot be fully relied upon. It would be possible to install, for example, fencing, CCTV surveillance and security patrols to guard against potential looting of the site by “treasure hunters” but on a long-term basis this is likely to be considerably costly as well as impractical. There is not considered to be any immediate threat to the national monument. Moreover, recommendations made later in this report as to the development of a research agenda for the site (see page 30), if approved by the Minister and agreed with the owner, Mr. Halley, going forward would ensure a further physical presence on the site at certain times of the year. Allied with the proximity of neighbours, the relative difficulty of access by vehicle (though access from the river front remains possible) and the possibility, for example, of putting in place a grazing agreement in due course with Mr. Halley, should constitute cumulative measures that ensure that the site is effectively safeguarded in so far as is practicable.

It should be further noted that it is an offence under Section 2 of the National Monuments (Amendment) Act 1987 to use or be in possession of a detection device in or at the site of, inter alia, a national monument in the ownership or guardianship of the Minister for the Environment, Heritage and Local Government, or a local authority, or on which a preservation order is in place, or in or at the site of a monument which stands registered on the statutory Register of Historic Monuments, without the consent of the Minister for the Environment, Heritage and Local Government. It is also an offence to interfere with such monuments without the relevant Ministerial consent under the National Monuments Acts 1930 – 2004.



Conviction of such offences carries significant monetary and/or imprisonment penalties.

### **Recommendation**

**In addition to affording the site of the Woodstown national monument the legal protection afforded under the National Monuments Acts by placement on the statutory Register of Historic Monuments, the proximity of adjoining buildings (dwellinghouses and the Waterford Institute of Technology campus) provides a further positive level of physical protection to the site.**

**In the future and subject to the approval of the Minister and with the agreement of the owner, Mr. Halley, for some of the time there may be a further physical archaeological research presence on the site at certain times of the year.**

**Also should a grazing agreement be formalised in the future with Mr. Halley such usage would further protect the site.**

**The Working Group, therefore, recommends that, in consultation with Mr. Halley, the strengthening of fencing at the site should be considered only in those areas where it is considered to be particularly deficient but that no major additional fencing or specific security measures are required at this time. To this end, the Office of Public Works should be requested by the Department of the Environment, Heritage and Local Government, upon agreement with Mr. Halley, to undertake an immediate survey of the site to identify any vulnerable areas and to address the practicalities of adequately fencing such areas.**

**Furthermore, the ongoing physical security of the site should continue to be monitored on a regular basis by, or with the agreement of, Mr. Halley, as appropriate. To this end the site could be inspected regularly by National Monuments Service staff based in Waterford City with the agreement of Mr. Halley.**

**Finally, the Department of the Environment, Heritage and Local Government should arrange for the erection of official notices around the site stating that it is a national monument and subject to protection under the National Monuments Acts.**

### **Display of Artefacts**

The desire of the Working Group as stated in the 2006 Interim Report was that following appropriate conservation, as advised upon by the National Museum of Ireland, relevant archaeological objects recovered from the site should be displayed locally at the Waterford Museum of Treasures. This proposed approach, which is also supported by Waterford County Council, will be subject to agreement between the Waterford Museum of Treasures and the Director of the National Museum of Ireland. Some 4,600 Viking period artefacts including silver coins, lead weights and grave goods had been found previously at the site and the level of finds has further increased on foot of the supplementary research project investigations conducted in 2007.

In July 2007 Waterford City Council launched *Project 2014*, part of which project plan is the proposed regeneration of the historic quarter of the city close to Reginald's Tower in the area known locally as the "Viking Triangle" or "Viking Quarter". The Council proposes to establish a National Viking Centre here with particular reference to the Woodstown site. The project plan also includes a proposal to move the Waterford Museum of Treasures to the "Viking Quarter" and to develop themed exhibitions reflecting the 1,000 years of architecture represented in this area. An advisory committee established by the Council to drive forward *Project 2014* includes a number of members of the Woodstown Working Group, who can potentially provide beneficial linkages between *Project 2014* and the future protection and further investigation of the Woodstown national monument.

**Recommendation**

**The Working Group recommends that relevant artefacts from the Woodstown site be displayed in the Waterford Museum of Treasures for the benefit of the population of the South-East Region and the country at large. Arrangements to this end will be pursued bi-laterally between that Museum and the National Museum of Ireland, as appropriate.**

### **Future of the site**

#### **(including further investigation and any potential development or commercial exploitation thereof)**

It was stated in the Working Group's 2006 Interim Report, that it would be premature at that interim reporting juncture to make any recommendation in respect of the longer term development or commercial exploitation of the Woodstown national monument site such as, for example, the establishment of a visitor centre or some overt form of heritage tourism project. The view was also expressed that any review of the potential development or commercial exploitation of the site should, in the longer reporting term, consider all options ranging from "do nothing" to commercial exploitation. In short it was felt that such issues would be better left until the nature and extent of the national monument were better known and its significance better understood and elucidated. On foot of the completion of the supplementary research project the Working Group now considers itself in a position to further consider this matter in the round.

The following is the Working Group's summation of the relevant options: -

- **"Do nothing"**

This would simply entail allowing the site to return to pasture and, at most, grazing livestock on it where appropriate. This would protect the site for posterity and allow future generations to decide on a research or excavation policy in the light of improved techniques or greater technical knowledge. However, given the significance of the site, its arguably increased vulnerability to threat over time and given that a high level of current technical ability and knowledge currently resides within the archaeological sector to maximise information gain from the site, to simply leave the site in its natural state may be a somewhat passive approach and would fail to capitalise on what the Working group perceives to be a unique educational, informational and scientific opportunity.

- **Research Agenda**

A measured multi-disciplinary research approach to unlocking the considerable informational potential of the site and disseminating it to public and expert audiences has many attractions and benefits. It would allow smaller discrete aspects of the site, which may prove to be hugely important in the wider research field, to be investigated in a structured approach. It would also allow experts from Ireland, Europe and further afield the time and space to develop appropriate research themes and suitable approaches to disseminating relevant information as broadly as possible. Such an approach may support the making of a case for the adequate financing of an appropriate research agenda over time, potentially linking into National Development Plan 2007 – 2013 funding for the built heritage sector. This approach would also synergise with the principles and ideals in the Heritage Council's January 2007 report to the Minister for the Environment, Heritage and Local Government on future archaeological research needs entitled "A Review of Research Needs in Irish Archaeology".

- **Full-scale Excavation**

A full-scale archaeological excavation of the site with an agreed research programme would be technically possible and would arguably extract maximum informational gain from the site in the shortest timeframe. An advantage would be that the same archaeological team would conduct the excavations and would gain an increasing understanding of the site as the excavations progressed. However, the cost of such a project is likely to be very high, potentially of the order of at least €10 million, and for which a new dedicated funding source would need to be found as expenditure of this magnitude on any one single project is not provided for within existing State archaeological budgets. There is a very real danger also that not enough appropriately skilled archaeological personnel would be available to undertake such a labour-intensive and time-intensive project from within the current archaeological workforce and additional staffing resources might have to be sought from abroad potentially at a premium. In this context, such a major focusing of the current archaeological resource on one project would be likely to detrimentally affect other important areas of archaeological investigation in both the public and private sectors.

- **Heritage Tourism Related Development or Commercial Exploitation**

There may be some scope in the medium to longer term for promoting the site as a visitor attraction whereby the public in limited numbers could, for example, watch research archaeologists at work. To that end there may be potential for the existing tourist railway running alongside the site to feature this approach with dedicated viewing points being developed along the track.

There would, certainly, be an educational aspect to such an approach which would synergise, for example, with the Department of the Environment, Heritage and Local Government's "Archaeology in the Classroom" programme, the Heritage Council's "Heritage in Schools" scheme and the ongoing work of local Heritage Officers.

However, on the down side there are no upstanding archaeological features to view, no visitor facilities on site and access is not suitable for large numbers of public visitors. To develop such facilities would run the risk of damaging the site in the shorter term.

There may also be scope to further link the Woodstown site with Viking related exhibitions of the Waterford Museum of Treasures and with the proposed Waterford City Council *Project 2014* for, inter alia, the regeneration of Waterford City's historic "Viking Quarter" or "Viking Triangle".



### **Recommendations**

**The Working Group recommends: -**

- **That a multi-disciplinary research agenda for the Woodstown national monument site be developed and pursued, informed by the results of current research. The agenda could be developed in partnership between Waterford City and County Councils, the Department of the Environment, Heritage and Local Government, National Museum of Ireland, Heritage Council, Royal Irish Academy, Waterford Institute of Technology and other third level establishments. The aim of the research agenda would be to unlock and disseminate to the widest possible audience, both general public and experts and scholars, the repository of information held within, and related to, the Woodstown site. The research agenda may incorporate public viewing of any on-site excavation, as appropriate, potentially based around the existing tourist railway running alongside the site. This could usefully serve as a broader showcase for the archaeological sector and as an encouragement to those seeking to know more about, or considering a career path in, archaeology.**

- **That an international conference be held in Waterford to formally launch publication of the results of the research done to date at the Woodstown national monument site and highlighting the site's finds, its relevance and significance. The conference would involve experts in the Viking and related periods worldwide and would showcase the viking heritage of Woodstown, Waterford and the South East Region and Ireland generally. The conference would also provide the opportunity for experts involved in the investigation and excavation of the site to date to give public information talks on their findings.**

- **That a public information booklet on the Woodstown national monument site be produced by Waterford City and County Councils and the Department of the Environment, Heritage and Local Government in consultation with the National Museum of Ireland, the Heritage Council and relevant members of the Woodstown Working Group, as appropriate.**

- That the educational aspects and possibilities of the Woodstown national monument site be pursued both locally and nationally, as considered appropriate, by local authorities, the Departments of the Environment, Heritage and Local Government and Education and Science and relevant educational institutions, the Heritage Council and the National Museum of Ireland. Tailored projects or programmes should draw, as appropriate, on existing or developing schemes and programmes such as the “Heritage in Schools” scheme, the “Archaeology in the Classroom” programme and the support of the local authority Heritage Officers network.
- That the local authorities in consultation with Fáilte Ireland, as appropriate, may wish to explore the scope for further linkages between the Woodstown site, its artefactual discoveries and any recommended research agenda for the site, and the progression of Waterford City Council’s *Project 2014*.
- That in this context, however, it is considered that in the short to medium term there should not be any specific on-site heritage related development or commercial exploitation at the Woodstown National Monument in terms, for example, of the provision of a visitor centre or other public facilities. However, the suitability of any such future heritage related development or commercial exploitation should be kept under review in the medium to longer term and should be revisited upon the conclusion of any recommended research agenda for the site, or, as appropriate, relevant discrete modules thereof. Any final decisions in this regard will also be influenced by greater understanding of the archaeological footprint of the site.

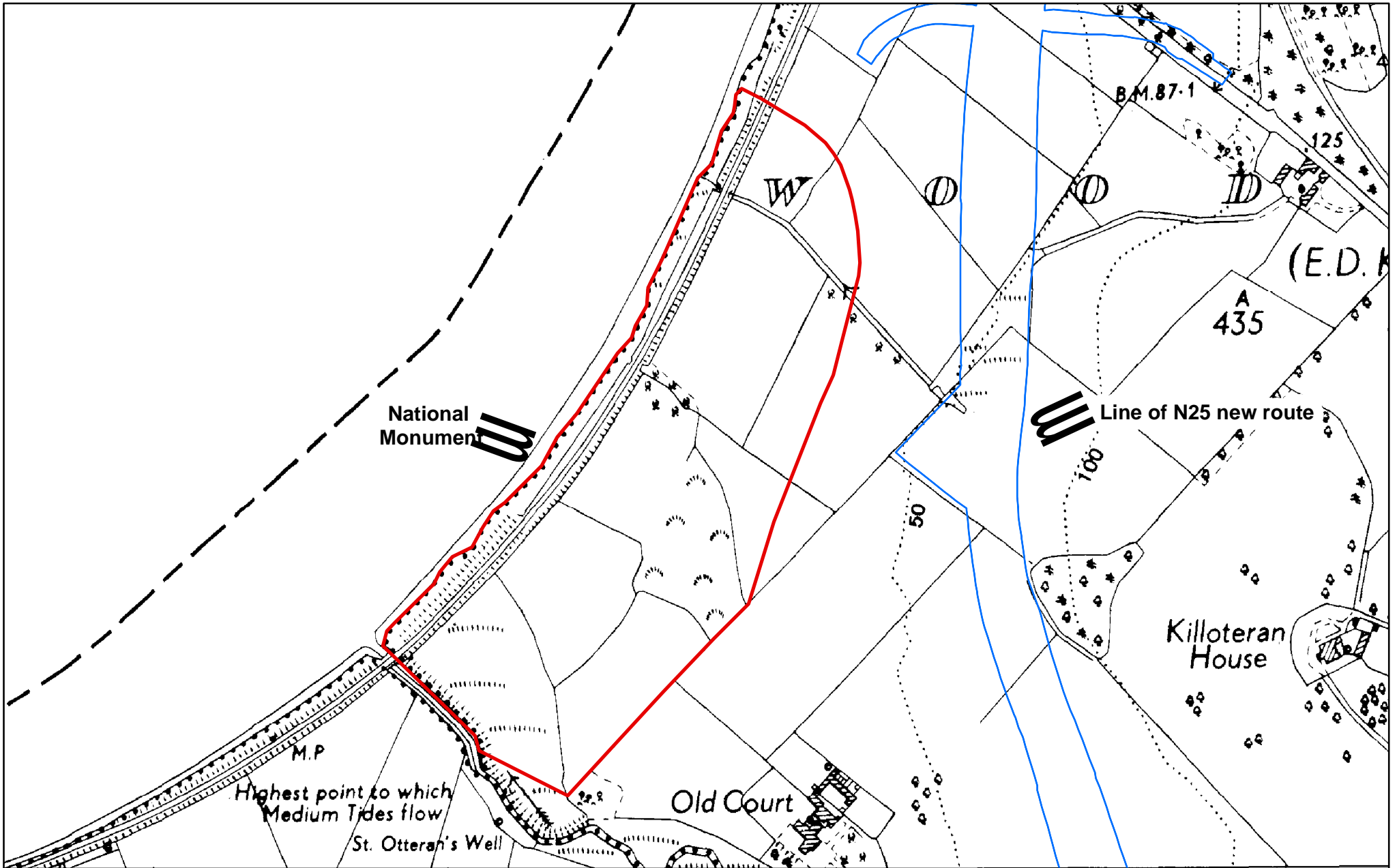
### **Acknowledgements**





The Woodstown Working Group wishes to thank all those who facilitated, helped and co-operated with the work of the Group in completing their reporting to the Minister for the Environment, Heritage and Local Government.

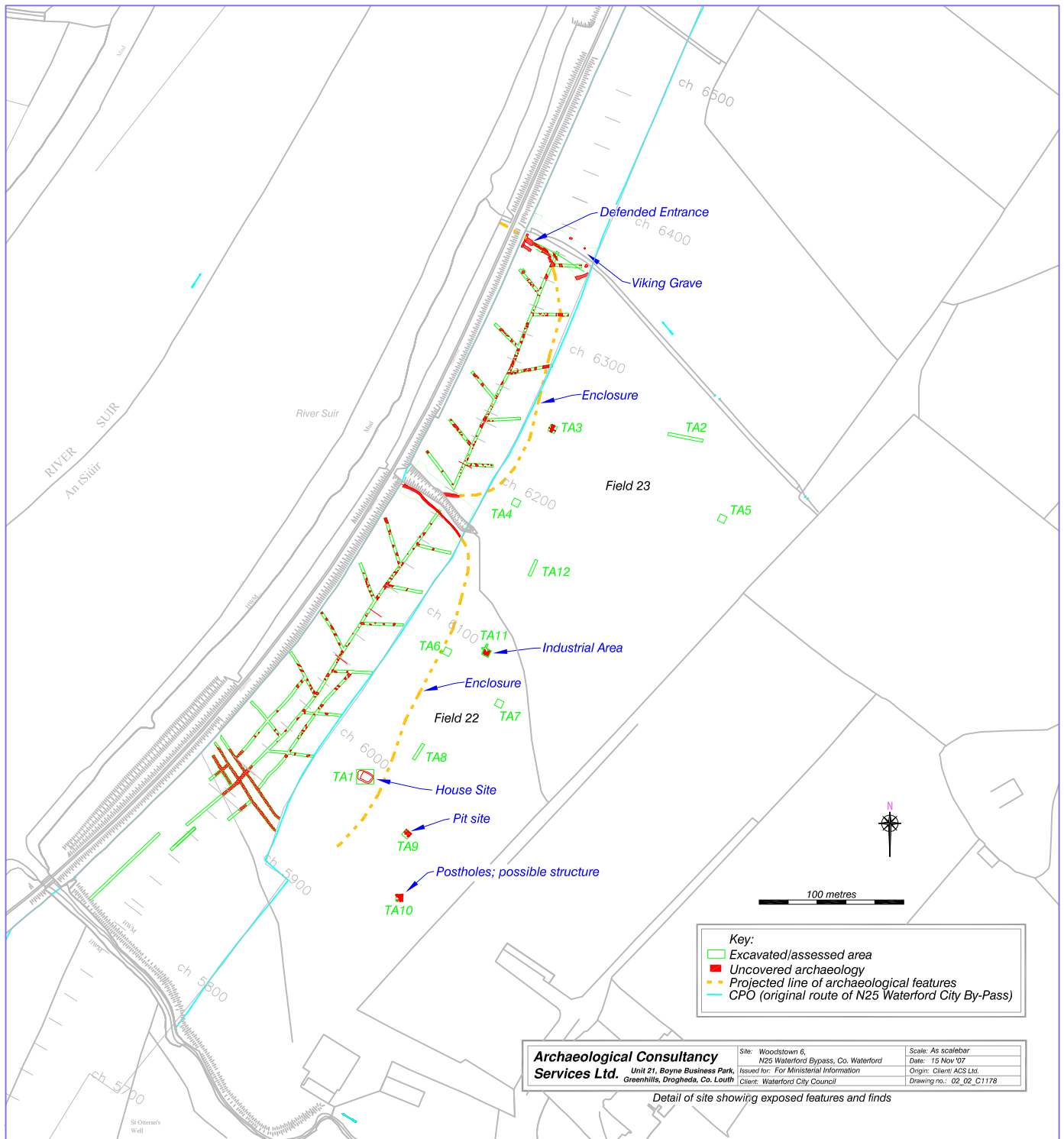
In particular, the Working Group, wishes to acknowledge the contributions of Mr. Gerard Halley, Ms. Dáire O'Rourke of the National Roads Authority, Ms. Nessa O'Connor of the National Museum of Ireland, Mr. Conleth Manning of the National Monuments Service, Mr. Gerard Smith (Secretary to the Working Group) and Mr. Kevin McCormick (Acting Secretary), Mr. Ian R. Russell, Mr. Stephen H. Harrison, Mr. John Nicholls, Mr. Jonathon Kinsella, Ms. Siobhan McNamara, Ms. Méabh O'Hare, relevant staff of Archaeological Consultancy Services Ltd., relevant staff of Waterford City and County Councils, the Waterford Institute of Technology, and all those who took part in the targeted public consultation exercise in the early phase of the Working Group's deliberations.

**APPENDIX 1**

**MAPS OF THE WOODSTOWN NATIONAL MONUMENT SITE**



 <p>AN tOIRIEN COMHARDAIL, OIBHEACHTA AGUS RIALTAIR ÁRTHOIL DEPARTMENT OF THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT</p>	<p>Woodstown, Co. Waterford: Viking settlement boundary map</p>	<p>Name: Viking settlement</p>	<p>6" sheet: WA009 WA017</p>	<p>Scale: 1:5,000</p>	<p>National Grid: 255000E, 111000N</p>	<p> Site boundary</p> <p> N25 Realignment</p>
	<p>National Monuments Service Seirbhís na Séadcomharthaí Náisiúnta</p>	<p>Townland: Woodstown</p>	<p>0  200m</p>	<p>Grid reference refers to the central point of the monument.</p>		
	<p>County: Waterford</p>					





**APPENDIX 2**

**RESULTS OF A DIVE AND INTER-TIDAL SURVEY AT  
WOODSTOWN AND KILLOTERAN, CO. WATERFORD BY THE  
UNDERWATER ARCHAEOLOGY UNIT OF THE NATIONAL MONUMENTS  
SERVICE (OCTOBER 2006) and SUBSEQUENT RADIOCARBON DATING  
RESULTS (DECEMBER 2007)**

## **Results of the UAU Dive and Inter-tidal Survey at Woodstown and Killoteran, Co. Waterford**

### **Introduction**

The UAU survey at Woodstown was carried out on dates between the 10<sup>th</sup> and the 25<sup>th</sup> of August 2006 as an advance aid to the Supplementary Research Project on Woodstown.

The objective of the Survey was to identify possible archaeological remains on the shoreline and underwater in the River Suir immediate to the Woodstown site itself, as well as surveying the adjacent townlands and surveying shoreline and underwater context of the Kilkenny side of the River Suir. To obtain as much information as possible it was decided to approach the survey as a combined inter-tidal wading survey at low tide first, followed by a dive survey.

### **The Inter-tidal Survey**

The inter-tidal survey was carried out over two days on the 10<sup>th</sup> and 11<sup>th</sup> of August at lowest possible tides to cover as much of the area in the best possible conditions. During the survey the full length of the mudflats along Killoteran and Woodstown were walked and waded as well as parts of the opposite Kilkenny side of the river. The remainder of the survey was done from the boat by driving at slow speed as close as possible to the shore.

No archaeological features or objects were discovered at the Kilkenny side of the river. The only features noted consisted of several narrow linear stone walkways, which extended from the reeds across the mudflats into the river below the low water mark. These walkways are constructed by local fishermen to provide solid footing for launching their fishing boats, which are moored at the river bank within the reeds. The mudflats on the Kilkenny side consisted mainly of relatively sterile, soft silty clay, which was on average c. 0.3m deep. Only small amounts of modern debris were visible along the surveyed area.

The inter-tidal survey at the Waterford side of the river covered the full length from the rock outcrop at Killoteran to "Giant's Rock", a large, natural boulder east of Woodstown. The mudflats at Killoteran consisted of soft silty clay, which varied substantially in depth. Close to the rock outcrop at the western end of the survey area the soil was extremely soft and quite deep, with an average depth of c. 0.80m. For the remaining shoreline at Killoteran the soft silty clay continued, and was on average c. 0.30m deep. Two gravel areas were noted along the Killoteran shoreline, which consisted of small to medium sized sub-angular stones.

These areas provide solid surfaces. Several timbers were encountered approximately 10m to the east of the largest of the gravel areas. The timbers comprised of a large horizontal roundwood and at least three small upright stakes. The upright stakes varied in diameter between 5 and 12cm and showed evidence of eroded points. None of the exposed timbers showed evidence of wood-working. The soil surrounding the timbers was relatively solid and high in organic content. No structural relationship or context between the timbers could be established on the surface. To the knowledge of local fishermen no structure existed in this location in recent times. That the timber structure may be of antiquity is further suggested by the eroded points of the upright stakes. To establish whether the feature forms part of the early medieval/ Viking Age settlement activity at Woodstown and Killoteran four of the timbers were sampled and have been brought to Queens University for dating. No other features or archaeological objects were found at Killoteran.

The outlet of the Killoteran stream showed different ground conditions. While the central area was relatively solid due to a high gravel content, the immediate surrounding area consisted of very soft and deep silt deposits. A high concentration of modern debris in this area was also noted.

Most of the shoreline at Woodstown itself consisted of sterile silty clay which varied in depth between 20cm to 0.5m. Towards the northern half of the townland occasional patches of bedrock were noted. However no archaeological remains were found associated with it and no archaeological features or objects were encountered at Woodstown itself.

## The Dive Survey

The subsequent dive survey was carried out over five days from the 21<sup>st</sup> to the 25<sup>th</sup> of August 2006. Diving could only be carried out at slack water between the tides because the flow of the river is too strong to carry out safe diving during running tides. This limited the diving to a maximum of two dives per day with dive time ranging between 20 and 40 minutes. The extremely poor visibility under water, which ranged between zero visibility to c. 20cm, made the survey conditions quite difficult. All diving was carried out with surface supplied dive equipment from a stable dive platform. Although all dives were video recorded, the footage is of limited value because of the poor visibility. Depending on dive location and current conditions the applied survey methodology varied between pendulum and grid-line surveys. The dive survey was conducted based on two separate sources of information. One consisted of the geophysical survey, which was carried out in the river in 2004 by Irish Hydrodata and the UAU. This comprised of a magnetometer and a sidescan survey, during which more than 60 anomalies were identified. None of the geophysical results indicated a clear wreck or other potential archaeological site. It was therefore decided to diver truth areas where clusters of geophysical anomalies were observed. This aimed to identify as many anomalies as possible during the short time frame of the project.

The second source of information for the dive survey was the timber structure, which was discovered during the wade survey. Since this feature was the only positively identified archaeological site, it was decided to carry out a dive survey in the vicinity of the timbers to establish if the possible structure extended further into the river. Despite the silty riverbed and poor visibility one more upright timber was found c. 15m into the river in line with the wooden uprights recorded on the foreshore. This indicates that the timbers at the foreshore and the upright timber in the river could be associated and thus part of a larger structure extending substantially into the river proper.

Following the investigation of the timber area the dive platform was moved to the location of the first cluster of geophysical results. The topography of the river channel is a direct result of the dynamics of the water flow within the river. The bottom of the riverbed proved to be compact and eroded due to the exposure to the strong flow of the river. No silt deposits were observed, which could provide holding ground for

archaeological material. The only features, which were encountered, were wedged tree logs with debris clustered around them.

As the central part of the river provides little chance for archaeological material to survive it was decided to focus the dive survey on the shoreline again. Starting at the Killoteran stream, the dive platform was successively moved downstream along the Woodstown site to cover as much ground as possible. However, no further archaeological material or deposits were encountered.

### **Conclusion**

Three main conclusions can so far be made from the inter-tidal and dive survey at Woodstown and Killoteran.

1. Although no evidence of exposed archaeological remains was encountered at Woodstown during the survey, the nature, extent and depth of the silts hold a high potential to retain buried archaeology in the foreshore.
2. Given the river dynamics it is highly unlikely that the shoreline served as a harbour. The strong tidal flows and river currents suggest that it would have been an unsuitable location.
3. A potential wooden structure was discovered during the inter-tidal survey in the foreshore at Killoteran. The dive survey, although only identifying one timber possibly associated with the inter-tidal timber feature, also confirmed the potential for archaeological material to be present along the river course.

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Department of the Environment,  
Heritage and Local Government.

As presented to the Woodstown Working Group on 17 October 2006

### **Radiocarbon Dating Results of the Woodstown and Killoteran Dive and Inter-tidal Survey**

Five selected samples were sent to the radiocarbon labs at Queens University, Belfast for dating. As none of the sampled timbers were of sufficient quality for dendrochronological analysis, the samples were dated by way of radiocarbon dating. The results of Wood species Identification are not yet available. The radiocarbon dating results are shown in the table below:

<b>Sample No.</b>	<b>Description</b>	<b>C14 Date</b>
1001	Upright stake (12cm diameter)	925 +/-29 AD
1003	Upright stake (5cm diameter)	215 +/-28 AD
1004	Horizontal timber (35cm diameter)	1717 +/-30 AD
1005	Upright stake (12cm diameter)	764 +/-35 AD
1006	Tree stump	4449 +/-35 BC

#### **Interpretation of the C14 Results**

The radiocarbon dating results show clearly the varied nature of the (archaeological) deposits along the Killoteran and Woodstown mudflats.

As all of the sampled timber remains were found in close proximity to each other along the mudflats adjacent to Killoteran townland it was decided to date as many samples as possible to establish possible contemporary dates, connections between the encountered features.

The date range of the selected samples shows clearly that they are not contemporary, with dates ranging from the Neolithic to the 18<sup>th</sup> century AD. The oldest date belongs to the tree stump 1006, which was found close to timber 1004. With a Neolithic date (4449+/-35 BC) this tree stump can be attributed to an ancient woodland landscape stretching along the southern shore of the River Suir. The identification of wood species for the sampled timber will shed further light on this submerged prehistoric landscape.

The small upright stake 1003, which was found next to the horizontal timber 1004, was dated to the late Iron Age (215+/-28 AD). No other sample was dated to this period and no other archaeological features or objects were encountered in the vicinity, which could indicate additional features, which could be associated with this upright stake. The feature remains therefore isolated and no further archaeological interpretation can be made other than to record Iron Age activity in the River Suir.

Two of the samples (1001 and 1005) were dated to the early medieval period and thus could be associated with the settlement activity of that period in the townlands of Woodstown and Killoteran. Both samples are from small upright stake, were of roughly the same diameter (c. 12cm) and were found on the lower foreshore, close to the high water, mark approximately 13.5m apart from each other. Although both dates are within the early medieval period they are roughly 200 years apart with the northern stake 1005 dating to the mid-8<sup>th</sup> century (764+/-29 AD), which is slightly earlier than recorded Viking activity in Ireland and 1001 dating to the mid-10<sup>th</sup> century (925+/-29 AD). Due to the relatively large distance between the two stakes, both spatially and in date, they cannot be safely assumed to be associated with each other. Their similarity in size and location however remains striking and the discovery of a third upright stake of similar dimensions in the river proper, north of stake 1001, may indicate the presence of an early medieval structure in this area. No further archaeological features were discovered, which could be safely associated with

these early medieval structural timbers. As the two stakes are not sufficient and diagnostic enough, no detailed interpretation of the discovery can be made. However considering the relatively small size of the upright timbers, it is unlikely that they formed part of a larger structure, such as a jetty or bridge. Size and location of these upright stakes would be more diagnostic of fish traps, an inter-tidal feature, which is a feature well documented in the archaeological record from the Mesolithic onwards.

The fact that all of the above described timbers were found well preserved highlights the high potential of the Killoteran and Woodstown mudflats to retain archaeological features and objects. It cannot be ruled out that further archaeological material contemporary to the settlement activity at Killoteran and Woodstown is still buried along the foreshore of the two townlands.

One sampled timber (1004) was dated to the 18<sup>th</sup> century (1717+/-30AD). In contrast to the majority of the other sampled timbers, 1004 was a horizontally lying timber and of more substantial dimensions with a diameter of c. 35cm. It showed no evidence of toolmarks or working and is most likely a piece of driftwood, which was washed ashore from further upstream.

## **Conclusion**

The archaeological recording, sampling and subsequent radiocarbon dating highlights the high archaeological potential in the vicinity of the two settlement sites at Woodstown and Killoteran. Although no definitive interpretation of the encountered features could be made, they show clearly the continuous development and usage of the foreshore of the River Suir from submerged prehistoric landscapes to early medieval usage of the River.

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Underwater Archaeology Unit  
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12 December 2007

**APPENDIX 3**

**ACS WOODSTOWN 6 SUPPLEMENTARY RESEARCH PROJECT  
REPORT**