

The Archaeology of the Severn Estuary

2006

A guide for planners, developers, decision makers and local communities.



Taking Account of the Archaeological Importance of the Severn Estuary: This note provides guidance for those planning development or reviewing proposals in the Severn Estuary area.



Department for
**Communities and
Local Government**

The importance of archaeology

Archaeology is the study of past human societies through their material remains. Archaeological remains are irreplaceable, and are fundamental to our understanding of the region, its local identity and the sense of belonging of its inhabitants. Archaeology may be visible above ground – for example fish traps within the Severn and field boundaries on its shores - but there is also much below ground, which remains to be discovered.

If archaeology is not considered when planning new development, or appropriate mitigation does not take place, the destruction of the archaeological resource is not simply a contravention of planning policy, but is also a wider loss to everyone – archaeology is fundamental to informing our self-identity, of giving us a sense of place.

Careful planning to deal with archaeology at an early stage in the development process will reduce the risk of on-site delays and can often save developers money in the long-run. It is inevitable that new archaeological discoveries WILL be made – some of which will be of national or even international importance.

The Severn Estuary

The Severn Estuary and its associated Levels and hills is a phenomenally rich and varied archaeological landscape. A landscape in which one can walk alongside the footsteps of those from the past – with footprints of Mesolithic humans visible in the muds of the Gwent levels, and the imprint of the boots of Roman soldiers on tiles at the Roman Barracks at Caerleon. Trackways of the Bronze Age, villages of the Iron Age and fish traps of the mediaeval period can also be found in the Estuary and its Levels whilst more modern elements, relating to the defence of Britain in the 20th Century also have historic significance. Generally speaking, older archaeological deposits are buried deeper, with more recent deposits above them. In the Severn Estuary however, one can find prehistoric remains on the surface of the muds in the inter-tidal zone.



The River Severn meanders over a course that has altered over time – areas that are now well inland may once have been inter-tidal with huge potential for archaeological deposits – much of this land has been reclaimed from the River. Furthermore maritime areas also contain incredible archaeological elements; after all, the Mary Rose was found in the Solent. The Severn has a rich maritime heritage, including the remains of boats at Newport (medieval), Barland's Farm (Roman) and Caldicot (Bronze Age).

It is not simply the route and former course of the river that is significant – the adjacent Levels are an essential element of the Severn landscape that contain archaeological remains arising from the activities that took place along the river – its industries, its transportation routes, and the way of life of the people living on its shores.

From prehistoric times to the present day, artefacts link the Severn to the European mainland. Trading vessels from Europe made use of the river to deliver goods, traders bought new ideas, and conquering armies travelled by river, and this is reflected throughout the archaeological record. Thus, not only does the tidal river, its estuary and the Levels share similar attributes and issues with European counterparts, there is constant reference to Continental Europe in the archaeological record.

Planning Policy Requirements

The highest level of archaeological protection is given to those sites that are designated as Scheduled Ancient Monuments (SAMs). There are several SAMs in the Severn region and these have statutory protection. Scheduled monument consent is required for most works to these monuments, and planning permission and building regulation approval may also be required, even where works are being undertaken by statutory undertakers. Cadw is responsible for the protection of Welsh SAMs, and English Heritage the English ones. Information on these sites is held by English Heritage and the Local authority Sites and Monuments/ Historic Environment Records in England, and by Cadw and the Glamorgan-Gwent Archaeological Trust on the Welsh side.

Development requiring planning permission and work undertaken by statutory undertakers should also be assessed for its impact on unscheduled archaeological sites. Mitigation strategies, including appropriate action when unexpected archaeological remains are uncovered, should be put in place. Additional protection is afforded to historic landscapes in Wales, and development within these areas will be particularly carefully controlled. The Gwent Levels is included on the Register as a Historic Landscape of outstanding historic interest. This area is recognised as the largest and most significant example in Wales of a landscape which is entirely man made, having been recurrently inundated and reclaimed from the sea from the Roman period onwards.

The archaeological landscape should not however be seen in isolation. It is part of a wider environmental picture and any works undertaken here must take into consideration that the Severn Estuary is very important for nature conservation and has local, national and international designations.



Mesolithic human footprints



Roman Barracks at Caerleon



Barland's Farm Boat



Medieval fish traps

Figure 1 - Examples of archaeological sites and finds in the Severn region



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Ensuring Compliance with UK policy on archaeology

Some archaeology (Scheduled Ancient Monuments) is given statutory protection and most works will require Scheduled Monument Consent. National planning policies require that the potential impacts of development on all archaeological remains, whether scheduled or not, are assessed as part of every planning application.

In Wales, Planning Policy Wales Chapter 6 provides guidance for the conservation of the historic environment within the planning process whilst its English equivalent is Planning Policy Guidance Notes 15 and 16. As a finite resource, **archaeology is irreplaceable and should be considered at an early stage within the planning process.** Where development is proposed, Local Planning Authorities will consult their local Historic Environment Record (HER) or Sites and Monuments Record (SMR) and even though there may be no record of archaeology, the likelihood of archaeological remains being found has to be considered before planning permission is granted. It should be stressed that Sites and Monuments Records/Historic Environment Records (SMR/HER), simply provide a guide to what is already known. **The area of the Severn Estuary and its extensive hinterland of Levels and associated landforms is of such historic richness that potentially significant archaeological deposits are very likely to be found wherever development occurs in this region,** and the absence of entries within an SMR/HER does not indicate that nothing will be found.

For any site in the Severn Estuary and Levels, it is important that developers, statutory undertakers, local drainage boards and Development Control officers consult with the archaeological advisor to their Local Planning Authority in England, or the Glamorgan-Gwent Archaeological Trust in Wales, in order to get archaeological advice about how best to deal with any archaeological issues prior to undertaking their proposed works or submitting or reviewing any planning applications relating to land in or around the Severn Estuary. It is unlikely that planning applications can be determined within the government's target timescales, unless any necessary archaeological evaluations have been undertaken prior to registration of the application.

Mitigation strategies for dealing with unexpected or major discoveries must always be developed in consultation with the local planning authority. There are a range of strategies

that the local planning authority and their archaeological advisors may implement in order to ensure that appropriate account is taken of the effects of development to the historic environment. Developers may be asked to support their applications with the results of archaeological evaluations that are detailed enough to demonstrate the archaeological potential of the site. The onus is upon developers to provide this information and local planning authorities will be pleased to provide guidance as the level of information that is required. **Failure to provide appropriate archaeological evaluations could result in applications being refused.** Where this information indicates that remains are not of sufficient merit to warrant protection in situ, various mitigation strategies can be required by condition or agreed through a formal legal agreement, to ensure appropriate protection of the archaeological interest. Ultimately however **planning permission may be refused if the archaeological deposits are of national importance or where no mitigation strategies can be agreed.**

Please note: proposals for excavation or site works in the vicinity of the estuary could cause harm to habitats or species, and any implications must be appropriately assessed before works take place. See The Severn Estuary Partnership guidance notes on nature conservation, appropriate legislation and guidance, and contact Natural England/Countryside Council for Wales.

Because of the vulnerability of the Severn to flooding, the Environment Agency requires prior notification of any works being undertaken in the vicinity of any of the raised embankments, walls or other structures associated with sea defences. (Contact the Local Flood Risk Manager).

Developers: A first stage should be to discuss your proposed development with the local authority. They can advise you on elements to include within your design to safeguard the historic environment.

DC Officers: on receipt of a planning application within the area of the Severn Estuary and Levels, consult with your designated provider of archaeological advice, be it the local Council Archaeologist or in Wales, the Glamorgan-Gwent Archaeological Trust.

Elected Members: should satisfy themselves that appropriate account has been taken of all relevant issues including the archaeological interests when making decisions on planning applications.

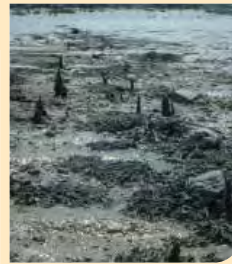
Examples of archaeological deposits

Medieval: Newport Boat



Found during development work in Newport – this Medieval boat was found to still contain part of its rigging and is one of the most important discoveries of an ocean-going Medieval vessel.

Medieval: Post-Medieval: South Gloucestershire Fish traps



Utilising the huge tidal range of the Severn, wooden fish traps from the Medieval to post-Medieval period are present along the river. The retreating tide would leave fish stranded within these structures.

Roman: River Usk, tributary of the Severn Amphitheatre



An amphitheatre on the river Usk, tributary of the Severn. A place for ceremony and entertainment for troops of the II Augusta Legion, stationed at Caerleon.

Roman: Caerleon Barracks



These are some of the best surviving barracks from the Roman world and would have been supplied by boats travelling up the Severn, and then following the River Usk. The Roman troops were provided with goods from Europe – including wine and olive oil. Pottery found on site came from Spain, France and Germany.

Mesolithic: South Gloucestershire The submerged Forest



Many timbers of once large trees of the Mesolithic period can be found in the inter-tidal zone of both the English and Welsh sides of the Severn.

Roman: South Gloucestershire Aust Goddess

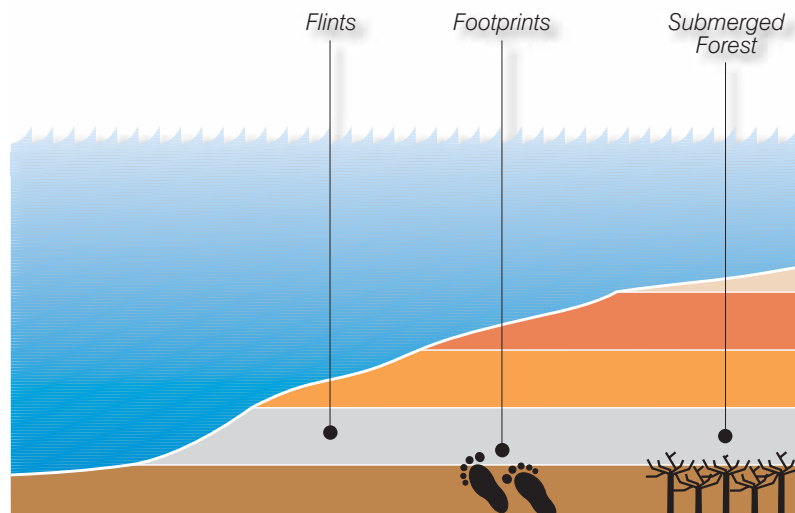


A small bronze statuette thought by some to represent the Roman goddess Minerva was found in the cliffs at the edge of the River Severn at Aust.

Mesolithic: Gwent Footprints in the inter-tidal zone



These footprints, found on the Welsh side of the River Severn, in the inter-tidal zone were made some 6,500 years ago. A phenomenal and scarce resource – these traces of human history are understandably fragile and vulnerable and will usually be lost to the tides.



ts within the Severn Estuary

Roman: South Gloucestershire Pottery



Roman pottery finds from fieldwalking, South Gloucestershire: Walking in the inter-tidal zone of the River Severn, one cannot fail to find elements of past human societies - in this case a number of Roman pottery sherds.

Roman: Barland's Farm, Gwent Boat



Made of oak timber planks held together with iron nails. The vessel was originally some 11.1m in length and was 2.6m wide with a mast step. It is likely that the Severn example is representative of a group of boats that plied their trade mainly across the Estuary with the potential for some longer, sea-going journeys.

The Severn Estuaries and Levels Research Committee (SELRC) has much more information on these sites and archaeology as a whole in the region:

Medieval - Modern (1066 – present day) – Pottery sherds from this period abound, as do remnants of fish traps which emerge as wooden stalagmites from the waters of the Severn. Boats and their moorings can be found and one must also be aware of artefacts and historical associations of far more modern vintage; the 20th Century rifle ranges at Pilning and elements associated with the defence of Britain must be included when considering the historic environment within planning.

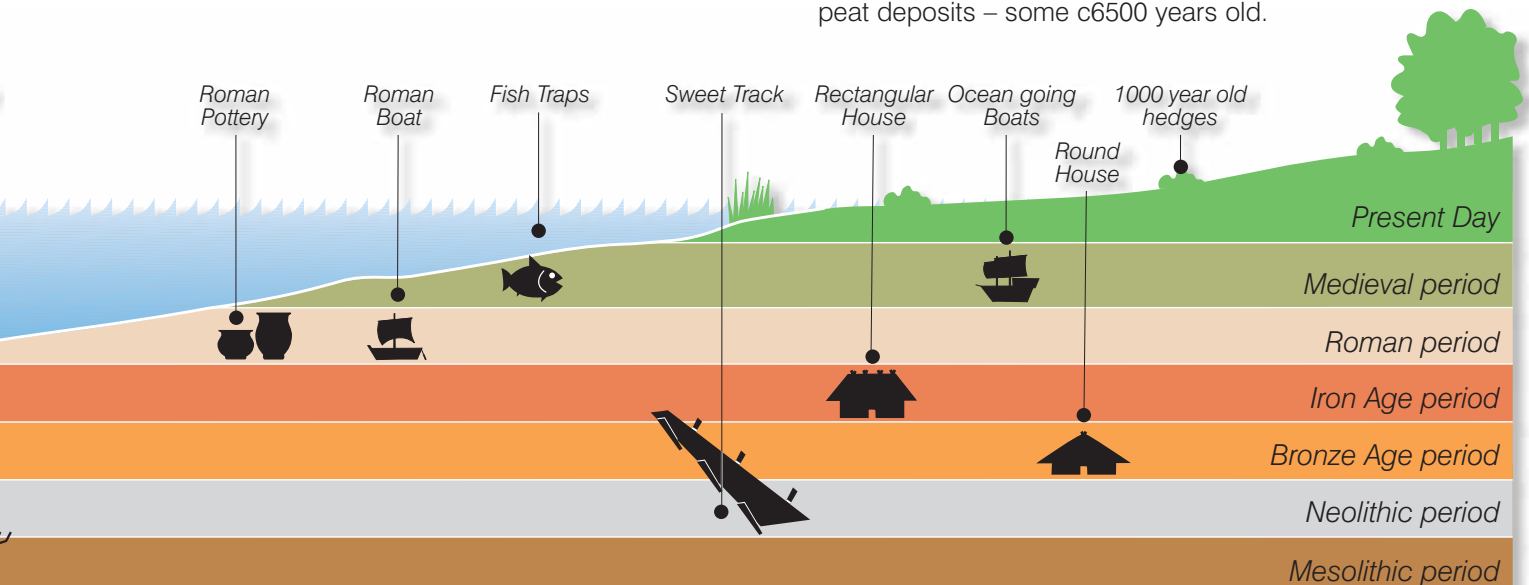
Saxon (410 – 1066 AD) – some villages emerged in this period, with the reclamation of some parcels of land along the Severn.

Roman (43 - 410 AD) – Some believe the Aust Goddess to be Roman in date, others that it is an Iberian import from the preceding Iron Age. Pottery of Roman date – Samian from France, Amphorae from Spain, and colour-coated vessels from the Rhineland - can be found throughout the levels, along with salt collection sites, and the discovery of the magnificent Roman boat at Barland's Farm.

Iron Age (c700 BC - 43 AD) – The most famous site from this period is perhaps the lake village at Glastonbury – further huts have been found at Goldcliff on the Welsh side of the Severn. Iron Age settlements are found in many areas of the Atlantic coastline of Northern and Western Europe with several having been extensively excavated – such as Le Yaudet in Brittany. A number of areas have provided interpretation of these sites to local people – including the Gallician 'Castro' sites which have boards providing information on site.

Neolithic and Bronze Age (c4000-700 BC) – small wooden trackways, such as the 'Sweet Track' (the oldest track in the UK and possibly Europe), crossing the Somerset Levels are found from this period, along with settlements at places like Brean Down in Somerset, and part of a boat at Caldicot.

Mesolithic (c10,000 – 4000 BC) – Preserved elements of a submerged forest, inundated by sea-level rises in c6000 BC have been found in places such as Uskmouth along with human and animal footprints preserved in the mud below peat deposits – some c6500 years old.



The Severn Estuary

Examples of Planning Legislation in action

The four archaeological discoveries discussed below highlight the importance of archaeology in the Severn, its role in the planning process, and the ways in which developers can see such discoveries as something positive rather than a hindrance to work:

- ▶ Two maritime vessels – one Roman, the other Medieval – as this is the essence of the area's importance; its role as a major route for trade and transit.
- ▶ A hoard of Roman coins
- ▶ A bronze statuette.

Throughout the archaeological record it is clear that there are many heritage elements that are shared along the Atlantic coastline, from Bronze Age 'Carps-tongue' swords to Roman 'amphorae' and Medieval ships.

The saving and display of the Newport Ship

In 2002, a desktop study identified that the proposed site of a new Arts Centre on the banks of the River Usk in Newport had archaeological potential, but did not fully appreciate what this might involve. An archaeological watching brief was a requirement of the planning permission and when development work began, the substantial remains of a medieval ship were discovered. Development was delayed whilst excavations took place which revealed that it was exceptionally well preserved and had been over 25m long. Finds revealed possible trading links with the European mainland, including around 240 sherds of pottery (Merida ware from Portugal).

Coins included a copper 'ceitils' of Alfonso V of Portugal (1438-81), and a copper 'real preto' of Duarte I (1433-38) struck in Lisbon, highlighting the trans-European nature of this vessel's history and the links between states on the Atlantic coast. For more information, see <http://www.thenewportship.com/index.html>

This discovery engendered huge public interest and Newport City Council, in collaboration with the National Assembly for Wales, generously committed £3.5m to preserve the ship's timbers and arranged for their display in a purpose built gallery.

Whilst this was clearly an exceptional discovery of international importance, developers should be aware that major public relations benefits can arise from the successful implementation of archaeological mitigation strategies especially when major discoveries are made. Where health and safety issues can be resolved and the archaeological remains protected from damage, public access to view remains and associated press coverage can be highly beneficial.

*Thanks to Kate Hunter,
Newport Museum's Keeper of Conservation*

The Discovery of the Barland's Farm Romano-Celtic Boat

On 23rd December 1993, excavators finally recovered the last timbers of a Roman boat, some c9m in length from a 15ha site at Barland's Farm, near Redwick on the Gwent Levels. Tesco Stores Ltd had applied to develop this area into a dry goods warehouse and the site had been subject to an archaeological field evaluation by Glamorgan-Gwent Archaeological Trust. Initial work consisted of borehole survey which led to hand-dug locations being examined and the discovery of some timber and pottery dating from around C3rd-4th AD. Subsequent construction monitoring by the Trust resulted in the discovery of a stone and timber structure and associated late Roman finds. The timbers were soon seen to be structural and the curved oak timbers nailed to horizontal planks indicated that these were the remains of a boat. Having consulted with the developers, Glamorgan-Gwent Archaeological Trust then drew up a costed project design and the on-site contractors agreed the programme of fieldwork.





The boat was recovered over a six week period and is being conserved in Newport Museum. The finds indicated that this boat had been abandoned in a tidal region of the River Severn in the C4th AD and had probably been reused as a landing stage. The boat would have been ideally suited to travelling along the Severn and also serves to indicate that the Caldicot levels were subject to tidal flow and thus navigable. The recovery of the boat through conditions applied to planning permissions, careful archaeological monitoring and co-operation with developers was exemplary and allowed this important discovery to be recovered.

See the 'The Barland's Farm Romano-Celtic Boat' by Nigel Nayling and Seán McGrail for further details on this find.

At both of these sites, and initial archaeological assessment resulted in archaeological monitoring during development. Important discoveries then triggered full-scale excavation to enable these internationally important remains to be recovered.

The Thornbury Coin hoard – an unexpected find.

In 2004 a huge hoard of Late Roman coins was found by Ken Allen whilst digging a garden pond in Thornbury, South Gloucestershire. The hoard, of some 15-20,000 coins was reported to Bristol City Museum and to the Finds Liaison Officer for Gloucestershire and Avon. Despite the fact that none of the coins were gold, they were deemed to be treasure under the 1996 Treasure Act as there were more than ten of them and they were over 300 years old. The site was unknown until this discovery and the finder behaved in an exemplary fashion by reporting the find so promptly. These coins, some of which dated to the reign of Constantine the Great (AD 307-337), were found in a parish that includes the River Severn and might indicate Roman trade up this route. Their deposition perhaps hints at the quick devaluation of this type of coinage although their hasty burial, perhaps to avoid being seized by raiders moving up the river, is an outside possibility. This find amply illustrates the fact that there are still discoveries



made inland that may be connected to the overall story of the Severn, and that Sites and Monument Records/Historic Environment Records only reveal the known picture. Furthermore, it highlights the correct way of dealing with unexpected small finds made outside the planning system. If these coins had been found during development work, and outside the remit of a watching brief or evaluation, site developers would still have a duty to report the finding of the objects to the local planning authority/Finds Liaison Officer.

The Aust Goddess

A hundred years ago, a 14.6cm bronze statuette was discovered at Aust, in South Gloucestershire at the foot of the cliff near where the first Severn Bridge now stands. This female statue with glass eyes and a head-dress was of a style that led to it being published as a 3rd Century BC import from Spain. It was believed to have arrived in the region perhaps through trade up the Severn. Other authorities now believe that, the statuette may be late Iron Age or Roman in date, but is of local origin and represents a fertility goddess. This may be a representation of Sulis – a goddess equated with Minerva in the Romanised adoption of local divinities (see Sulis-Minerva at Bath).

A find of this quality emphasizes the importance of the region. The possibility of a link with Spain is exciting, although, even if the artefact is local, there are enough finds from Spain and France to amply illustrate that there were long standing trading links with Atlantic Europe.



*A facsimile of the Aust Goddess
Image courtesy of Bristol City Museum and Art Gallery*

What are the impacts that development or projects could have?



Archaeological deposits are a finite resource and they can be affected in different ways. Developments, by their very nature, generally require ground disturbance. Such ground works can destroy in situ remains and therefore the processes outlined in this guide should be followed in order to minimise this risk and to mitigate the effects where they are deemed likely. In addition, large scale extraction works within the river could alter tidal movements, exposing different areas on the inter-tidal and inland zone and affecting submerged archaeological deposits. It is imperative to remember that the river has not always followed the same course – areas that were once river are now land and currently submerged areas were once dry. Extended use of sites for leisure purposes could subject now-stable monuments to weathering and erosion and thus require future protection measures. Changes in land regime can alter the natural equilibrium and thus expose archaeological deposits to pressures that were not there previously – for example changing land use from grazed pasture could result in scrub encroachment and infestation of burrowing animals within archaeological monuments. Wherever possible, developments should avoid disturbing potential archaeology. Where this is impossible, a demonstrable mitigation strategy must be included within any planning proposal.

What are the risks if a development does not consider archaeology?

As highlighted within this leaflet, there is enormous archaeological potential within the Severn area.

If archaeology is not given due consideration at an early stage this could have serious ramifications further into the planning process, for example:

- the discovery of unexpected deposits could require costly mitigation work which may have ensuing delays and costs for subsequent elements of the development project.
- There might also be the potential for overall refusal of planning permission.
- The failure to deal with archaeological elements successfully could result in significant public relations difficulties as opposed to the possible benefits within this sphere that proper consideration might facilitate.

How should one consider the archaeological record when making a planning application?

When assessing the suitability of a site for development, all potential constraints should be identified including consulting the Sites and Monuments Record/Historic Environment Record for the area, and identifying any national and local plan policies that apply. Discussions with Development Control Officers can help to design a scheme that will have the minimum adverse impact on the historic landscape, and where disturbance is unavoidable, allow mitigation measures to be considered at an early stage.

- ▶ Don't assume that, because there are no recorded archaeological elements on an area of proposed development that this means there is no potential.
- ▶ Don't look at the archaeological resource as a last thought within the planning process – it could be a show-stopper!
- ▶ Do discuss the possible presence of archaeological deposits with your local authority at an early stage.
- ▶ Do view the wider landscape as possibly being connected with the Severn and of rich archaeological potential.
- ▶ Do build an outreach element into a pre-planning budget; archaeological discoveries can engender excellent PR.
- ▶ Do report the discovery of unexpected archaeological finds.

Useful contacts

The online version links to more comprehensive information on related legislation and countryside agency advice

www.severnestuary.net/sep

Contact: Severn Estuary Partnership
c/o School of Earth, Ocean & Planetary Sciences,
Main Building, Cardiff University,
Park Place, Cardiff VF10 3YE

Tel: 029 2087 4713
Fax: 029 2087 4326
Email: severn@cardiff.ac.uk

Vale of Glamorgan Council
01446 704600

Cardiff Council
029 20 873185

Newport City Council
01633 232164

Monmouthshire County Council
01633 644644

Forest of Dean District Council
01594 812615

South Gloucestershire Council
01454 868004

Gloucestershire County Council
01452 425679

Bristol City Council
0117 922 2000

North Somerset Council
01934 888888

Somerset County Council
01823 355455

Sedgemoor District Council
01278 435435

The Environment Agency
Local Flood Risk Managers can be contacted via the national contact centre (Tel 0845 8506506).

ASERA Implementation Officer
02920 879111
The Association of Severn Estuary Relevant Authorities has prepared a management scheme to ensure compliance with the European Habitats Directive. An archaeological guidance for site works will be available shortly.
See www.severnestuary.net/asera for further information.

Somerset Historic Environment Record:
A searchable database of all sites, monuments and artefacts within Somerset.
www.somerset.gov.uk

Gloucestershire Council:
The Historic Environment part of the County Council website:
www.gloucestershire.gov.uk

South Gloucestershire Council:
The Historic Environment Section of the Unitary Authority Website:
www.southglos.gov.uk

The Severn Estuary and Levels Research Committee:
Website currently under construction

Newport Museum:
Details on the Museum can be found through the Council's website:
www.newport.gov.uk

Glamorgan Gwent Archaeological Trust:
Holder of Sites and Monuments Record for the Welsh side of the Severn: Heathfield House, Heathfield, Swansea SA1 6EL Tel 01792 655208
www.ggat.org.uk

The National Museum of Wales:
Has extensive archaeological collections www.nmgw.ac.uk

Bristol City Museum:
See the Bristol City Council, web site which also includes information on the Bristol Sites and Monuments Record:
www.bristol-city.gov.uk

Cadw:
The Body tasked with preserving the monuments of Wales, managing several of the sites around the Severn:
www.cadw.wales.gov.uk

English Heritage:
The body tasked with preserving the monuments of England:
www.english-heritage.org.uk

Finds Liaisons Officers:

Officers at the following locations are able to offer advice about archaeological finds recovered by members of the public within their local area.

Gloucestershire and Avon:
Bristol City Museum,
Queens Road, Bristol BS8 1RL
Tel 0117 922 2047
Kurt-adams@bristol-city.gov.uk

Gloucestershire County Council
contact details are: Tel 01452 425705
Kurt.adams@gloucestershire.gov.uk

Somerset:
Somerset County Museums Service
Taunton Castle, Taunton
Somerset TA1 4AA
Tel 01823 320200
chtrevarthen@somerset.gov.uk

Wales:
Glamorgan-Gwent Archaeological Trust,
Heathfield House, Heathfield,
Swansea, West Glamorgan.
SA1 6EL Tel 01792 655208
curatorial@ggat.org.uk



Useful references

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