

Archaeological Activities and the Severn Estuary European Marine Site

A guidance note for those planning and undertaking archaeological study, survey and works

This guidance note has been produced by the Association of Severn Estuary Relevant Authorities (ASERA) and offers advice if you are studying or protecting archaeological remains on or next to the Severn Estuary European Marine Site.

ASERA - The statutory bodies that have come together to raise awareness of the Severn Estuary European Marine Site and to ensure that activities around the estuary are carried out in a way sympathetic to nature conservation objectives.



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The Severn Estuary

Severn Estuary European Marine Site - The Severn Estuary, and the surrounding areas, are important in the UK for nature conservation, supporting a wide variety of nationally and internationally important habitats and species. It is designated as a Site of Special Scientific Interest (SSSI), a wetland of international importance (Ramsar site) and a Special Protection Area (SPA) for birds. It is a European Marine Site and forms part of a network of wildlife sites across Europe known as 'Natura 2000'. The Severn Estuary is also being considered as a Special Area of Conservation (SAC). Consequently, any activities undertaken around the estuary, need to ensure that they are sympathetic to the needs of wildlife, particularly the thousands of wintering birds that visit the estuary every year.

The Severn Estuary is recognised as an important **historic environment** that supports a wide range of features and artefacts both visible and hidden. The conservation of and research into this resource is important and should be part of the ongoing management of the estuary environment. The Severn Estuary Partnership has produced a guide entitled '**The Archaeology of the Severn Estuary**', which is useful in helping decision makers to understand the importance of the study and protection of archaeology. Using the advice presented in this complementary guidance note will help you to avoid potential conflicts with the nature conservation objectives of an internationally and nationally designated site.

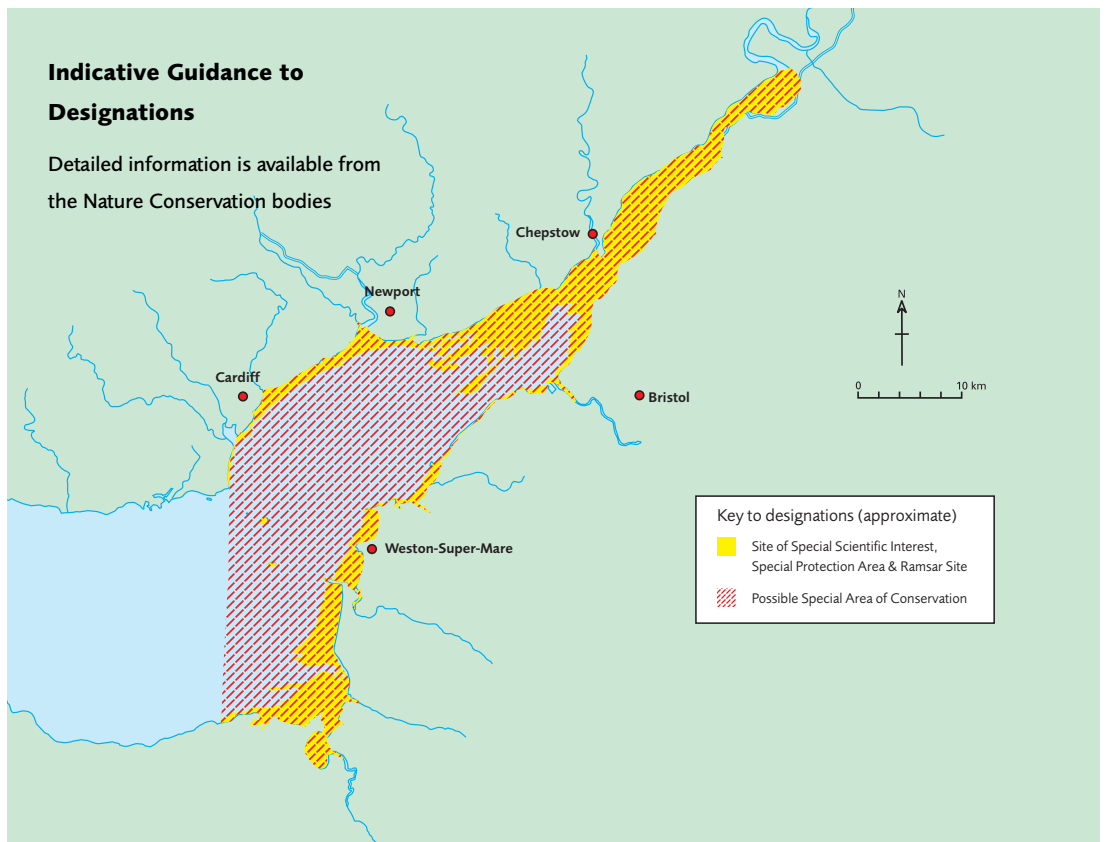


Figure 1 outlines the key bird species of interest and the zones that are used for feeding and roosting. **Figure 2** shows a generalised typical cross section of the

shoreline of the estuary and the zones within which the main nature conservation features are found.



Bewick's Swan		
European WFG		
Shelduck		
Wigeon		
Gadwall		
Teal		
Pintail		
Pochard		
Tufted Duck		
Shoveler		
Ringed Plover		
Grey Plover		
Dunlin		
Whimbrel		
Curlew		
Redshank		
Oystercatcher		
Golden Plover		
Lapwing		
Knot		
Sanderling		
Black T Godwit		
Bar T Godwit		
Turnstone		

Figure 1. Areas of the Severn Estuary used by birds - Dark shading – most frequented habitats (primary feeding and roosting areas); Light shading – less frequented habitats (secondary feeding and roosting areas or disturbance refuges)



Sandbanks and mudflats		Mud habitats may extend further via pills and creeks
Rocky shores		In some parts of the estuary this zone extends across all the foreshore to cliffs behind
Saltmarshes		
Reedbeds and swamps		
Wintering and passage birds	Feeding and roosting in this zone	Feeding and roosting in this zone (Breeding where saltmarshes suitable) Feeding and roosting in this zone (Breeding where conditions suitable)
Migratory fish	Fish can extend across the profile from the open estuary across the saltmarsh zone via pills and creeks and beyond into flood plain grazing marshes via rivers, ditches and streams	
Invertebrates		
Nationally rare and scarce plants		
Cliff and foreshore exposures	In parts of the estuary where the above profile is replaced by rocky exposures on the foreshore and cliffs behind	
Sand Dunes	Restricted habitats within the Severn – Berrow Dunes where dunes replace the above more typical mud-saltmarsh-grazing marsh profile	

Figure 2. Generalised cross section of the Estuary – showing in colour where the main nature conservation features may be found.



What to do before carrying out your activities

Archaeological activities (e.g. survey, excavation and study visits) can sometimes affect the valuable natural assets of the estuary and in certain situations could harm them. To avoid or minimize this possibility, all archaeological activities around the Severn Estuary should be planned and implemented with nature conservation in mind. It is recognised that this can be a real challenge where archaeological features of interest are continually exposed and then eroded over short periods of time.

A. Main Stages to Follow:

- 1. Identify the relevant nature conservation designations and features that may be affected**
(visit www.magic.gov.uk and use your Local Biological Records Centre or Natural England/Countryside Council for Wales, see also Figs 1 & 2).
- 2. Assess the potential impact of your proposed activities on the features and conservation objectives of the Special Protection Area (SPA)**
(visit www.severnestuary.net/asera for further information and links to the relevant legislation, the Management Scheme and the Regulation 33 joint Natural England/Countryside Council for Wales advice on the nature conservation objectives of the SPA and operations which may cause deterioration of the interest features of the SPA. See also sections 1, 2, 3, 4 & 5).
(visit <http://www.severnestuary.net/sep/publications/guidancenotes.html> for further information on the habitats and species of the Severn Estuary; basic introduction for developers and decision makers).
- 3. Formulate any necessary measures to avoid or prevent adverse impacts**
(include them in your method statement - sections 1, 2, 3, 4 & 5).
- 4. Determine what consents you may need and apply for them**
(contact the Local Authority and then English Heritage/Cadw, Natural England/Countryside Council for Wales, Environment Agency, Internal Drainage Board & Marine and Fisheries Agency - section 6).
- 5. Make everyone involved in the activity aware of the sensitivities of the site**
(promote the measures that are being used to avoid/prevent adverse impact – section 5).

When following the stages outlined in the box A above there are a number of issues to address. These issues are summarised in box B below. Note that the production of a Method Statement that details how the main issues have been addressed is very useful as it can be used to accompany all applications for any relevant consents that may be required.

B. Main issues:

- 1. Choosing the techniques and methods to be used**
- 2. Timing your activities**
- 3. Locating your activities**
- 4. Considering and arranging access**
- 5. Who will be commissioning, supervising and carrying out activities**
- 6. Obtaining the relevant permissions/authorisations (consents).**

1. Techniques and methods to be used

The first question to ask yourself is what are you going to do and how are you going to do it (box C)?

C. Potential Techniques and Methods:

- Survey (e.g. field walking, measurement of earthwork features)
- Excavation (e.g. soil cores, test pits, trial trenching, open area excavation)
- Teaching/student visits
- Use of specialised equipment (e.g. theodolite, geophysical survey)
- Use of vehicles/machinery

In many cases you can select and apply your techniques and methods in a way that will safeguard habitats, species and their management. Activities that are likely to cause any significant or permanent loss, damage, disruption or disturbance to habitats or species will be of concern and are unlikely to be acceptable. Excavation and the use of vehicles or machinery may have the most potential for harm to habitat features. Visits by large numbers of people on a frequent basis at the wrong time of year may be damaging to species if wintering or breeding birds are disturbed. Techniques and methods that avoid impact will be welcomed, and much can be done to prevent and minimise impact by taking a sensitive or precautionary approach.

2. Timing of the activities

The timing of activities can be crucial in terms of impact on wildlife interests particularly in respects of disturbance to sensitive species. You can prevent detrimental impact by scheduling your activities to avoid the more sensitive times of the year. The period **October to April** is the most important time for over-wintering birds, which are sensitive to human disturbance. Unfortunately the majority of non-intrusive archaeological field survey techniques are more effective in these months. Attention should be paid to any activities that might cause visual, noise and vibration disturbance to birds.

In addition there may be breeding birds on surrounding grazing marshes so between **April and July** care needs to be taken when working on or near this habitat.

The duration of exposure to disturbance can also be a critical factor. Prolonged human presence can prevent effective use of preferred areas by birds; this may affect their survival prospects in winter or the abandonment of nests and young by summer breeding birds. This may be particularly relevant to educational visits, when large numbers of students in a sensitive area for a prolonged period could have a negative impact. Management of this issue is simply a case of avoiding visits to sensitive sites at sensitive times.

3. Location of the activities

The location of the Severn Estuary European Marine Site and other nearby sensitive sites and features can be determined by visiting the DEFRA website www.magic.gov.uk and using your Local Biological Records Centre. The relevant Local Authority, Natural England, Countryside Council for Wales or Wildlife Trust may also be able to assist you.

The sensitivity of wildlife conservation features around the estuary can vary depending on location of activities. While all saltmarsh can be easily and irreversibly damaged, the upper parts of saltmarsh areas can be firmer and drier in summer and at neap tides. The estuary edge saltmarsh is usually soft and wet. In winter areas close to feeding and roosting sites will be more sensitive than places with little bird use.



It is recognised that some archaeological investigations will be specifically targeted as a response to some form of threat to the historic environment in that location, or where a site has a particular research potential. Seeking alternative less ecologically sensitive locations would not therefore be a solution.

Techniques and methods may need to be varied in different locations and so early consultation over locations of archaeological activities should take place with Natural England or the Countryside Council for Wales.

Particular care should be taken when your activities are proposed close, to but not within the boundary of the designated parts of the Severn Estuary. Gain an understanding of the potential connections to, and indirect impacts on, the Severn Estuary or other adjacent designated sites. This is important even if archaeological activities are at some distance from protected nature conservation areas. Do not forget the potential for species associated with the designated areas to use other nearby sites (e.g. bird feeding and/or roosting locations, overhead bird flight lines etc). Consider possible impacts from people involved in archaeological activities (e.g. visual and noise disturbance to sensitive birds and trampling damage to vegetation and substrates).

4. Access

Getting to sites can sometimes be as significant an issue as the activities themselves, particularly where this may include vehicle access or the use of machinery. In avoiding impact on sensitive habitats, access arrangements can be made difficult and in some cases might mean that vehicle access is not possible.

Remember to take account of the constraints involved in working in the tidal environment places. This can mean more frequent vehicle movements are necessary which potentially increase the levels of disturbance to species and damage to habitats, particularly in wet ground conditions. Assess and address the implications of working with the tides in your Method Statement.

5. Commissioning, supervising and carrying out activities

Make a record of who is commissioning, supervising and carrying out your project. Different organisations, consultants and volunteers may either have good experience of working in sensitive estuarine environments or have little or no experience. Note down experience levels and then assess how to raise the relevant nature conservation issues to the appropriate personnel and organisations. This can be stated as part of the Method Statement that supports your application.

6. Permissions/authorisations (consents)

In England, please log your proposed project with the relevant Local Authority (preferably with an Archaeological Officer). In Wales, the Local Authority and the Glamorgan Gwent Archaeological Trust should be notified of your intentions. This is especially important if substrate disturbance is involved. Your Local Authority (and additionally in Wales the Glamorgan Gwent Archaeological Trust) can help you in beginning the process of determining what relevant permissions or authorisations may be needed for your project.

Scheduled Monument Consent may be needed from English Heritage or Cadw if a scheduled archaeological site is present, so this needs checking with these organisations. If archaeological activities involve somebody else's land, make sure you have permission from the landowner and note that they may need to secure the permission of others. Where work may affect an SSSI or SPA, legal consenting procedures apply and these need to be followed. Natural England and the Countryside Council for Wales can advise you on this.

The Severn Estuary is a heavily regulated environment, not only in respect of nature conservation, but also in terms of flood defence, control of engineering works, activities affecting navigation and the historic environment. The consenting regime (who provides what and in what circumstances) is complicated, and so it is advisable that after logging your project with the Local Authority (and additionally in Wales the Glamorgan Gwent Archaeological Trust), you make early contact with the relevant authorising authorities. This is so that the requirements for any archaeological activities to be able to go ahead can be established.

A useful spreadsheet is available on the Marine and Fisheries Agency website at www.mfa.gov.uk/ which can help to identify what permissions and consents. You may need to gain for your activity in addition to those concerning the Severn Estuary SPA/Ramsar site/SSSI.

Advice is also available from the relevant Local Authority, Natural England, the Countryside Council for Wales and the Environment Agency. The list below outlines the main consenting possibilities that may be applicable to archaeological activities:

D. Main Consenting Requirements Relevant to Archaeological Activities*
Most of the area seaward of the flood bank is in private ownership and the saltmarsh is also in agricultural management. Works, including access, within the estuary will normally require landowner permission and any relevant approval which landowners may be legally required to secure.
Similarly, the area landward of the flood bank is also in private ownership, in agricultural management and much of it supports important wildlife. Even where public access is straightforward on Public Rights of Way, access and works landward of the flood defences will normally require landowner permission and any relevant approval which landowners may be legally required to secure.
Without the landowner's permission there can be no certainty that the landowners own legal responsibilities (e.g. to management agreements, consents, health & safety etc.) can be met. When planning activities, please do not assume that the landowner's permission is sufficient and take steps to ensure that the landowner has obtained all necessary authorisations too.
Land owners will be required to obtain consent for works in the European Marine Site (Special Protection Area), Severn Estuary Site of Special Scientific Interest (SSSI) or any SSSI adjacent to the estuary, from Natural England or the Countryside Council for Wales.
Any proposed works in the vicinity of any structure or embankment associated with flood defence, or within 7m of river bank, will be likely to require Land Drainage Consent from the Environment Agency and Internal Drainage Board.
Planning permission may be required for some engineering works, and also for activity that would normally benefit from permitted development rights if it is likely to have a significant effect on any of the features of the European Site (SPA).
Below Mean High Water both Coast Protection Act (CPA) and Food and Environment Protection Act (FEPA) approval may be required from the 'maritime environment team' of the Marine and Fisheries Agency.
Works likely to affect navigation within the Harbour Authority areas will require its approval.
Works within 7m of any watercourse, affecting drainage or ditches in an Internal Drainage Board area will require its approval – this is particularly relevant to flood plain areas (e.g. grazing marsh) behind the flood defences. Such places can also be important bird roosting areas directly linked to the SPA bird populations (see first item above) and/or support other nature conservation interests.
* In addition consents directly associated with the historic environment may be needed. Contact your Local Authority Archaeologist or Glamorgan Gwent Archaeological Trust, English Heritage or Cadw for further details.



About ASERA

The statutory organisations around the estuary have come together in a co-ordinated, inter-agency approach and formed the Association of Severn Estuary Relevant Authorities (ASERA) in order to develop a Management Scheme for the European Marine Site. In conjunction with a wide range of user groups, they have identified that disturbance from the study and protection of archaeology could impact on the estuary's habitats or disturb its wildlife, depending on the location, intensity and time of year. ASERA have been working with different groups to encourage them to carry out their activities in a manner sympathetic to the needs of wildlife, particularly the thousands of wintering birds that visit the estuary every year.

Useful contacts

ASERA at www.severnestuary.net/asera for further on-line information

Plus

DEFRA at www.magic.gov.uk

Relevant Biological Records Centre

Natural England at www.naturalengland.org.uk/

Countryside Council for Wales at www.ccw.gov.uk

Relevant Local Authority (e.g. County, District or City Council)

Glamorgan Gwent Archaeological Trust at www.ggat.org.uk

Marine and Fisheries Agency at www.mfa.gov.uk/

Environment Agency at www.environment-agency.gov.uk

English Heritage at www.english-heritage.org.uk

Cadw at www.cadw.wales.gov.uk/

Severn Estuary Levels Research Committee

Useful References:

Cadw, 1999

Caring for Coastal Heritage

www.cadw.wales.gov.uk

Severn Estuary Partnership, 2006

The Archaeology of the Severn Estuary –

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

www.severnestuary.net/sep

The Severn Estuary Partnership, 2006

The habitats and species of the Severn Estuary –

A basic introduction for developers and decision makers.

www.severnestuary.net/sep

Countryside Council for Wales & Natural England, 2006

Views about Management, Countryside Rights of Way Act 2000, Schedule 11 (6)