



Kent Coastal Network

Towards integration on the Kent Coast

This topic paper is part of a KCC coordinated project to develop an Integrated Coastal Action Plan for Kent. The aim is to generate wider discussion and it is accompanied by a consultation response form.

Title: - Historic Environment

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The coastal and marine historic environment refers to the physical remains of all human activities relating to the sea. The theme covers terrestrial sites in the immediate coastal zone, and intertidal and marine areas which include buried land surfaces that were once dry land. These areas are rich in well preserved archaeological remains. The range of sites in the coastal and marine zone is vast including wrecks and archaeological remains, historic buildings and structures and historic landscapes.

Many of these sites are under threat. They represent a vulnerable and finite resource, that once gone, will be lost forever. It is important to protect this heritage so that it can be enjoyed and understood by future generations. It is an irreplaceable resource for reconstructing the history of mankind.

This topic paper

- Provides an overview of the Historic Environment of the Kent coast
- Considers opportunities for sustainable integration with other coastal activities
- Invites comment from representatives involved in this area of concern, the responses will be used to ensure a well informed and supported plan is developed.

The Coastal and Marine Historic Environment

For the purposes of this study, the zone of interest is regarded as extending from the immediate coastal hinterland, through the intertidal zone and including territorial waters out to 12 nautical miles. Tidal estuaries and inlets are also included. These areas are greatly exploited for economic purposes with varied impacts on the historic environment (Peeters, 2008: 9). Coastal change and natural processes also impact significantly on the survival of cultural heritage remains. The following categories are drawn from previous studies of the Greater Thames Estuary and the North Kent coast (see Williams and Brown, 1999, and Wessex Archaeology, 2000).

Palaeoenvironmental evidence

Kent's coastline has changed significantly during human history. For long periods of the Quaternary epoch the British Isles were part of the continental mainland. The final inundation of the North Sea basin began approximately 13,000 years ago and the area was completely drowned by 7,500 BP with Britain becoming an island again. Sea level change has continued during the last 2000 years, with natural processes driving reclamation of large areas of the Romney Marsh and the Wantsum Channel from the sea. A consequence of such massive landscape change is that important remains of human activity still lie submerged in the waters off our coasts, including remains as deep as - 30m off Grain in Kent.

The Kent coast has great potential for the study of environmental change and the relationship of humans with the environment. Animal, wood and plant remains allow us to reconstruct prehistoric landscapes and study human activity in these areas. These environmental resources are present in estuaries, the intertidal zone, reclaimed marshland and river valleys. They can be recovered from deep deposits as shown in a 14m section removed during excavations for the Medway tunnel in 1994 (Williams and Brown, 1999:12). Even submerged sites are likely to contain well preserved organic materials and Aggregates Levy Sustainability Fund projects have recovered evidence of a large number of multi period sites both on and off the shoreline of the region, sometimes filling gaps where PPG 16 has not been applicable (Flatman 2007).

Maritime archaeology

Maritime archaeology is not just the study of ships and wrecks, but all material evidence for maritime activities. The study is essential if we are to understand Britain's development as a major trading nation and naval power. It is particularly important for the study of Kent as the county has always been a gateway to Europe and beyond (Milne, 2007). This category of evidence includes remains such as ports, harbours and dockyards, ship and barge yards, jetties and wharves.

There are a large number of wrecks located in the waters off Kent. The Kent Historic Environment Record lists over 5000 reported losses, a large proportion of which (c.850) lie in the area of the Goodwin Sands, a well known navigational hazard off the coast of Deal. In reality the number of wrecks is far higher due to the inconsistent nature of the documentary record. The earliest wreck finds date to the prehistoric period but the documentary record is patchy until the late 17th and early 18th centuries. These sites are not only important for the information they provide about the vessels themselves but also for the artefacts they contain which give us vital information about trade, commerce and the life of their crew.

Intertidal and related archaeology

This category includes all sites that fall within the present intertidal zone between the high and low water marks. Many of these sites were once on dry land but their environment has altered due to coastal change, erosion and reclamation. The intertidal zone covers an extensive area around the Kent

coast containing a wealth of cultural heritage remains both on the surface and buried within deposits.

The category is broad and includes a diverse range of sites including settlements, abandoned boats, trackways, fishtraps, oyster pits, decoy ponds, pottery production and saltworking sites. They range in date from the Palaeolithic period up to the modern era.

Sea walls and flood defence

Sea walls and flood defences occur almost continuously around the coast. They have been used since Roman times to prevent flooding and reclaim land for grazing and pasture. Worsening climatic conditions from the late 11th century onwards led to the development of a series of sea walls within the Greater Thames Estuary (Williams and Brown, 1999: 16). It is likely that sea defences are closely related to more general patterns of reclamation and land use (WA, 2000: 48). The sea walls generally take the form of an earth bank, often with a rear ditch and wooden revetments. Many of these defences remain in use today whilst others appear as earthworks and cropmarks.

Settlement patterns

The coastal and marine zones contain a wealth of information related to settlement and agriculture. Settlement evidence can take the form of archaeological sites, earthworks, cropmarks or documentary evidence. The earliest settlement evidence dates to the Mesolithic period however it was not until the Neolithic period, some 6,000 years BP that our ancestors began to substantially alter their landscape. They started to make more permanent settlements, construct monuments, and farm the land. Patterns of settlement are evident from this time until the modern era. There was a particular emphasis in the Roman and industrial/post medieval periods when coastal settlements became heavily populated due to the industries in these areas.

Historic built environment

This category comprises standing buildings in the coastal zone including those relating to coastal and maritime activity. Kent contains a large number of such buildings, though buildings associated with coastal and maritime activities are currently underrepresented in the listed building register (WA, 2000: 50). A recent study by English Heritage highlighted the importance of seaside heritage to the identity of coastal communities. The study indicated that the unique character of historic buildings and structures in these towns were an integral part of the identity of these areas, and as such can form a key part of coastal regeneration.

Historic defences and other military installations

For thousands of years the Kent coast has acted as England's front line of defence in times of conflict. There is a wealth of historic defences spanning the Kent coast. These sites are evidence of the changing responses to international tensions and developments in weapons technology from the later Roman period (Saunders in Williams and Brown, 1999: 19). The sites range in date from the Roman period through to Cold War military installations. The range of monuments includes Roman forts and medieval castles, Royal Naval

dockyards, Napoleonic forts and towers, batteries, anti tank beach defences known as 'Dragons Teeth', pillboxes, and remains of airfields.

Industry and transport

Since the development of maritime transport, probably in the Bronze Age, the Kent coast has taken on an ever more important role in the economic life of the county. The relatively close proximity of both London and the continent, together with key local natural resources led to the evolution of a number of important industries. Transportation links in the hinterland also helped the development of industry, first via Watling Street and later with canals, railways and roads.

In the Roman period there was a large amount of industrial development in coastal areas. Numerous pottery, tile and saltworks have been found along the north Kent coast, perhaps controlled by the string of villas in the area. Ironworks in the Weald would also have exported their products, probably via the ports of southern Kent and Sussex.

During the medieval period a network of small ports grew up in Kent. The most influential were those of the powerful Cinque Ports federation, originally New Romney, Hythe, Dover and Sandwich. There were also several smaller ports and shipyards such as at Smallhythe, Deal, Faversham and Gravesend.

The majority of industrial sites date to the post medieval period, and the age of large scale industrialisation. There is a focus on the north Kent coast where a number of these sites still form a major part of life in the area. The huge range of sites includes extraction and processing sites such as cement works and brick earth quarries, processing industries such as breweries, maltings, chemical works and boatbuilding sites, and those industries with military commitments such as dockyards and explosives factories (WA, 2000: 52).

The distribution of the historic environment resource

In broad terms the whole of the Kent coast has potential for evidence of landscape change and past human occupation. The coast has undergone many changes, triggered by climate change, sea level fluctuations and human action. There is potential to recover evidence of human activity from nearly all the intertidal and marine areas around the Kent coast. Finds such as human and animal bone, as well as stone and antler tools have been found in large quantities from dredging work in the North Sea and the Thames Estuary. Targeted fishing expeditions and co-operation with fishermen has resulted in finds of middle Palaeolithic, Mesolithic and Neolithic age (Peeters, 2008). Given that only the large finds are being recovered and identified there is vast potential for the recovery of further cultural materials from these areas.

Kent can nevertheless be divided into a number of broad resource zones based on the historic character of the area and the nature of the archaeological evidence. This section widely draws upon on previous assessments of the archaeology and potential of the North Kent coast by Wessex Archaeology (see WA, 2000) and Williams and Brown (see Williams and Brown, 1999).

Dartford/Gravesham (*from the county boundary near Dartford to Cliffe Fort close to the Gravesham/Medway boundary*) The area has produced evidence of early human activity including some of the oldest human remains found in Britain at Barnfield Pit, Swanscombe. These deposits occur around 27-35m OD on the higher land terraces alongside the river.

The main importance of the area in the coastal and marine zones is in the survival of its built heritage as seen along the Thames River frontage of both Dartford and Gravesham (WA, 2000: 48). The area also contains important defence heritage including rounded bastion blockhouses of Henry VIII at Gravesend and Higham and granite faced armour plated forts from the 1860's at Shornemead and Cliffe. Cliffe Fort is also the site of one of the most complete extant Brennan torpedo stations in the UK (Williams and Brown, 1999: 20). To help supply the military sites in the Gravesend area the Thames and Medway Canal was constructed in the early 19th century.

The Darent valley and Ebbsfleet valley have potential for survival in the intertidal zone. Dredging may have impacted on the remains in the marine zone (WA 2000: 54). Further east, many buildings and structures relating to the industrial heritage of Gravesend and Northfleet still survive along the river frontage, as do many of the military remains and the Thames and Medway Canal. The area was important for its Portland cement industry that developed in Swanscombe in the 1830's and inshore fisheries at Gravesend.

Hoo & Medway (*from Cliffe Fort to Upchurch, including the tidal creeks and inlets of the river Medway*). In general the area has potential for a wide range of cultural remains including standing and buried remains on land, in the intertidal zone, below reclaimed land, and in the marine zone (WA, 2000: 54-55). Bronze Age trackways have been identified in the marshy intertidal zone north of Gillingham. The Upchurch marshes are a known area of salt working and pottery production during the Iron Age and Roman periods. Some early evidence of this activity may date back to the Bronze Age. A large scale 17th century salt working site has also been identified on the Isle of Grain (Williams and Brown, 1999:15). Many of these areas are eroding at a rapid rate meaning there is high potential for exposure of further cultural remains.

This area has a large number of known wreck sites with high potential for further remains of wreck spanning a long time frame. During the Roman period goods were ferried up the river from Rochester towards London. The Naval Dockyard at Chatham was established in the 16th century and became one of the most important areas of shipbuilding in England. The Dockyard is also a candidate for World Heritage status. The Medway area was also home to a large scale barge building industry from the 16th to 20th centuries which was critical to the commercial success of the region (Williams and Brown, 1999:21). Large numbers of these hulks and barges still lie in tidal inlets and creeks along the Medway and are under increasing threat of being lost forever.

There are a number of significant defence heritage monuments in the area including Rochester Castle and the revolutionary Cooling Castle, built in 1382 and the first castle to be constructed with gun ports in its towers and gates (Williams and Brown, 1999:19). The area is also of importance for its Napoleonic defences at Chatham Lines as well as Fort Amherst, Fort Clarence and Fort Pitt. Later defences, including those of the 20th century, survive at Grain and forts Darnet and Hoo, and as lines of pillboxes associated with the GHQ line.

The area has a high proportion of built heritage remains in addition to its defensive structures. Many of these relate to maritime industrial-era activities, especially at Chatham and at the Grain power station and earlier military activities. There are the remains of quayside facilities at Chatham in the form of plain timber wharves, river piers, quays and slipways for industry and simpler stages for oyster beds (Williams and Brown 1999: 24). There are the remains of a massive explosive industry to the north of Cliffe and remains of cement works at Cliffe.

Sheerness and Swale (*From Upchurch to Graveney including the Isle of Sheppey and the Swale*). The landscape of this zone is characterised by higher areas of ground in the north of Sheppey and south of the island separated by the low-lying and marshy areas running down to the Swale. The historic environment of the area is similarly divided with settlement and modern industrial development being concentrated in the Sheppey uplands and sparse occupation on the low lying areas. The far western and far eastern ends of the area are, however, the sites of the two largest towns – Sittingbourne and Faversham.

Important prehistoric settlements, including neolithic and Bronze Age sites, have been discovered along the ridge in the north of Sheppey. Prehistoric evidence is otherwise fairly scarce in the area. Although sparsely inhabited today the low-lying coastal areas are important for Roman saltworking sites, numerous remains of which still survive, often eroding from the soft silts in the intertidal zone. Faversham, Milton Regis and Minster were important Saxon settlements and medieval towns flourished at these places and also at Queenborough.

During the post-medieval period, Sheerness became an important shipbuilding and military centre focused on the Royal Dockyard and its surrounding defences. The area also has a high level of industrial remains including decoy ponds in Swale, chemical works, and remains of salt, copperas (iron sulphate) and pottery, tile and glass making. Examples of copperas works remain at Queenborough (Williams and Brown, 1999: 21). Explosives and gunpowder works were located at Uplees, Oare and Faversham. The Swale area was an important component of the north Kent barge building industry.

The area has high potential for remains of vessels and wreck and there are large areas of mudflats with potential for well preserved buried remains. In 1970 the remains of a 9th century boat were found during the excavation of a

drainage channel on the Graveney Marshes. Other coastal sites likely to be encountered include numerous batteries and beach coastal defences such as the anti tank 'Dragons Teeth'.

Whitstable (*Covering the coast from Graveney to the edge of the Wantsum Channel near Reculver*). There is high potential for the discovery of prehistoric remains in the marine zone off Whitstable and Herne Bay, either through fishing or dredging. The main coastal and marine archaeological potential of the area lies in the intertidal mudflats and reclaimed land where large numbers of finds have been made (WA, 2000: 52). The area was important during the Roman period as goods flowed from Canterbury, via waterways up to London. A Roman Fort of the Saxon shore is located at Reculver. Roman pottery including Samian ware has long been known from an area to the north of Whitstable and Herne Bay at Pudding Pan and Pan Sands, and may be indicative of the remains of Roman wreck(s). A large number of wrecks lie in the waters off the coast, evidence of the importance of the Thames as a supply route to London.

The remains of medieval and later sea defences are located along the coast. The area has important built heritage – Whitstable sea front is lined by a number of listed buildings which give the area unique character. Long stretches of the coast are home to defence monuments such as pillboxes and 'dragons teeth'. There are also significant remains of industrial sites representing a diverse range of activities. These include 19th century ship yards, large numbers of salt mounds, a Copperas works at Whitstable, and oyster fisheries (Williams and Brown, 1999). Amongst the other main sites likely to be encountered in the coastal environment are a large number of fish traps and weirs. This includes an extraordinary fish trap complex in Whitstable Bay (Fulford et al 1997, in Williams and Brown).

Thanet (*Covering the area from Reculver to Cliffs End near Sandwich*). The Thanet coastline has changed dramatically over the course of history. The Isle of Thanet was formed during the post Holocene inundation in the late Mesolithic period. For thousands of years Thanet was separated from the Kent mainland and it was not until the 17th century that the Wantsum channel finally silted up forming the landscape we know today. The Wantsum channel is a known area of high activity with large areas of reclaimed land that may protect undisturbed remains (WA, 2000:55). In general the Isle of Thanet has a long and rich history with high potential for remains spanning a long timeframe from the Palaeolithic to the modern era.

Evidence of prehistoric settlements may be located in the intertidal zones and the surrounding seas. Neolithic monuments in the coastal zone include a causewayed enclosure at Chalk Hill and Pegwell. There are a large number of Early Bronze Age burial mounds on the Island and close to the modern coast. Thanet was a significant area of settlement in the later Bronze Age and has one of the highest concentrations of ring ditches in the country, comparable with Wessex.

A Roman fort is located at Richborough near Sandwich and is widely thought to be the site at which the Romans landed in AD43 at the start of the Claudian invasion. By using geological reconstructions to recreate the Roman coastline it may be possible identify the debated site of the invasion (Milne, 2007). Due to the amount of reclaimed land there are also a number of ditches, dykes and sea defences such as the medieval Monks Wall, in this area.

Thanet has a particularly distinct built heritage, with a large proportion of seaside towns. Margate, Ramsgate and Broadstairs are all excellent examples of the heritage of the Victorian coastal leisure industry. There a large number of wrecks in the seas around Thanet. During the Second World War RAF Manston was a haven for returning bombers in difficulties thus the coastal waters are likely to contain wreckage of bombers (Weekes from Smith, 2007). Other defence monuments in the coastal zone include batteries, pillboxes and other coastal defences such as dragon's teeth.

Dover (*From Cliffs End near Sandwich to Capel-Le-Ferne just east of Folkestone*). The area has high potential for a long history of occupation and activity and Palaeolithic artefacts have been found on chalk downlands near Dover and Deal (Parfitt in Moody, 2008: 53). Early evidence of maritime contact is indicated by the discovery of a Bronze Age boat in Dover during the construction of the A20 in 1992. It is thought to be one of the oldest sea going vessels ever found and indicates that Britain was trading with the continent as early as the Bronze Age, over 3,500 years ago. Neolithic and Bronze Age artefacts recovered in Kent indicate even earlier systems of exchange. One of the largest collections of Middle Bronze Age metalwork was also found in the Channel off Dover in 1974. It appears this was a ship's cargo that did not make it across the Channel and is further evidence of Bronze Age trade.

Dover was an important place during the Roman period and substantial remains of two forts of the Roman navy, the *Classis Britannica* have been found in the town. The zone has a history of maritime centres, ports and harbours that flourished at different times, including the *Classis Britannica*, Dover and Sandwich, Deal and Walmer where there is potential for survival of archaeological evidence such as quays, landing places, warehouses and cranes (Milne, 2007).

A large number of defence monuments dominate the Dover coast including a chain of castles built by Henry VIII to protect the waters off Sandown, Deal, and Walmer. There are also numerous modern defences such as anti-aircraft batteries, pillboxes and other beach defences. The castle at Dover has its origins in the Iron Age and the site contains over 2000 years of history. It was of great importance during the Second World War when the secret wartime tunnels were used as a strategic headquarters and during the Cold War when it would have been a regional seat of government. The waters off Dover have great potential for the survival of wreck including vessels and aircraft lost in conflict.

Dungeness/New Romney (*From Capel-Le-Ferne to the county boundary near Lydd*). The landscape of the Dungeness and New Romney area has

undergone dynamic changes. It comprises the third largest area of coastal lowland in the UK, most of which has been created by coastal processes driving natural reclamation from the sea over the last 5000 years. The potential of this area for archaeological research lies particularly in the evidence for these landscape changes. An Aggregates Levy Sustainability Fund project has recently conducted a large scale survey of Dungeness Foreland, outlining a depositional history for gravel beach formation, storms, sediment supply and landscape change during the last 5000 years and an environmental history for evolution of the port of Rye during the last 3000 years (Flatman 2007).

Finds dating to the Bronze Age have been made on shingle banks near Lydd, but the main period of settlement was the medieval period when several towns in the area were members of the Cinque Ports. There is vast potential for survival of important remains in these areas. New Romney is also an important area for land reclamation, and many dykes, ditches, and sea walls such as the medieval Rhee Wall still survive. The area has a number of important defence heritage sites due to its strategic importance as part of the front line against sea borne invasion. The monuments include a system of 103 Napoleonic period Martello Towers along the south and east coast, surviving examples of which are located in Folkestone and further south along the coast. There are also a large number of 20th century defences such as anti tank beach defences and pillboxes or the iconic sound mirrors, an early form of radar located near Greatstone-on-Sea. The waters off the coast also contain a number of wrecks, many of which can be attributed to the Battle of Britain, which was fought in the skies above Folkestone in 1940.

The Regulators

Current legislation for the coastal and maritime historic environment is patchy, having developed piecemeal over the last 40 years. There is a complex arrangement of rules operating at both national and international levels, much of which is spread over different government departments (Peeters, 2008). To enable better protection for the coastal and maritime historic environment a seamless approach to the protection of remains both on land and in the coastal and marine zone needs to be developed. The future will see changes to the current system including a new Marine Bill and possibly a new Heritage Protection Bill.

Protection of Wrecks Act 1973

This act was never intended to be a long term means of protection for the marine historic environment. The act affords protection for wrecks but no other types of site. It makes no provision for expenditure on the active care and management of sites. The 1973 Act is concerned only with problems arising from sports diving and not from other activities that can affect wrecks, such as dredging, development and fishing (Roberts and Trow, 2002: 12-13). At present there are 61 designated wrecks in British waters, 8 of which lie off the Kent coast and in the Thames Estuary.

Merchant Shipping Act 1995

Any finds of wreck or any archaeological materials recovered from the marine environment must be declared to the Receiver of Wreck at the Maritime Coastguard Agency. The Receiver of Wreck will attempt to determine ownership of these materials, and place them in museums or storage. Unprovenanced materials found on the sea floor out to 12 nautical miles belong to the crown, although there are exceptions such as for ports or in estuaries. All material from vessels lost at sea still belongs to the person who originally lost them. If after a year the owner of the materials has not been found they too become crown possessions. Finders are often compensated for their discoveries to encourage reporting.

Protection of Military Remains Act 1986

The Protection of Military Remains Act affords protection to all military vessels and aircraft lost whilst on active service. It allows these sites to be designated as war graves even if they lie in international waters or if their location is unknown. It applies to all vessels and aircraft lost in service from the start of World War I.

UNCLOS

United Nations Convention on the Laws of the Sea (UNCLOS) – aims to regulate the sea and its natural resources and has limited protective working sphere towards cultural heritage. According to UNCLOS the first 12 nautical miles from the coastline are defined as territorial waters under total sovereignty of the coastal state where national heritage legislation may be applied (Peeters, 2008: 12).

Code of Practice for Seabed Developers

A non statutory document aiming to ensure that archaeological sites can be protected through the use of environmental assessment and evaluations. This is a voluntary code drawn up by the Joint Nautical Archaeology Policy committee with other partners (Dorset 1999).

European Environmental Directives

These environmental directives allow cultural heritage to be included as part of environmental impact assessments prior to any marine development.

UNESCO convention on underwater cultural heritage 2001

The UNESCO convention on underwater cultural heritage aims to raise public awareness of the existence of fragile underwater heritage and to afford better protection for remains in territorial and international waters. This convention has just been ratified by the necessary 20 states to bring it into effect. The UK government has yet to sign up to this convention, although the convention annex is being used as a code of practice for licensees of protected wreck sites (Firth, pers comm).

Marine Bill

The Marine and Coastal Access Bill aims to develop better systems to enable sustainable development in the coastal and marine environment. The bill was recently included in the Queen's speech and will come into effect in the current parliamentary session. The Bill will create a more comprehensive

approach to the management of the sea and marine planning. There will be a new planning consents process, improvements to existing nature conservation processes and the creation of a new Marine Management Organisation.

Ancient Monuments and Archaeological Areas Act 1979

A statutory act affording protection to sites based on their historic, architectural, traditional, artistic or archaeological interest (Roberts and Trow, 2002: 12). It is currently applied to terrestrial sites but could be used to protect monuments on the seabed, provided they comprise a building, structure or work, or any vehicle, vessel, aircraft or movable structure. The Act is yet to be used in this way in England but has been applied to the marine environment in Scotland (Roberts and Trow, 2002:12).

Planning Policy Guidance Notes 15 & 16

Since 1990, government planning guidance has ensured that archaeology is taken into account during terrestrial development. Development proposals are assessed to establish whether or not they are likely to disturb archaeological remains. If so, then planners and developers must treat the remains appropriately. Unfortunately this system only applies to terrestrial heritage. This means that there are massive gaps in the protection of coastal and maritime heritage remains that cross, or lie outside, these modern boundaries. These documents will shortly be replaced by new guidance – Planning Policy Statement 15.

Heritage Protection Bill

Aims to simplify the designation of heritage assets by creating a single list and transfer responsibility for designation from the Secretary of State to English Heritage. It is an attempt to simplify the systems of heritage protection in England, and also bring local significance into the decision making process. It will also allow non-wreck marine sites to be more adequately protected. Whilst the bill was not in the Queen's speech in December 2008, the government has reaffirmed its commitment to cultural heritage and hopes that new planning policy guidance will achieve many of the changes proposed in the bill.

Integration of the Historic Environment on the Kent Coast

Integration with other users and activities in the coastal zone can bring about more effective protection for the coastal and maritime historic environment and wider benefits for coastal communities and other users of the coast. There are a number of ways in which the users of the Kent coast can work together in a more sustainable way, for the benefit of all.

Biodiversity

The concerns of the historic and natural environment are largely complementary (Williams and Brown, 1999: 2). Legislation such as the European Maritime policy, the Marine Strategy Directive and the Natura 2000 directive, which aims to create a European ecological network of protected areas, including a network of marine parks, have tended to focus on the natural environment. There are opportunities to incorporate protection of the

historic environment through these green initiatives (Peeters, 2008:12). It is often the case that wreck sites are havens for biodiversity, and this has significant potential to attract visitors, and aid lobbying for greater protection of sites.

Geology and Geomorphology

The Geological composition of the county forms the backdrop upon which all other activities take place. Landscape change has directly influenced the shape of the Kent coast, and the activities of its people. Understanding the geology of the county, and how it has changed over time is of vital importance in helping us understand how our ancestors have used the coast. There are a number of crossovers between the work of geologists, geomorphologists and archaeologists. Archives relating to commercial prospection and wind farms could be of great use to archaeologists modelling environmental and landscape changes. Access to these archives for study and better sharing of data between disciplines will be of vital importance in the future.

Industry

There is potential for conflict between the historic environment and industry, as developments and maintenance work may impact on the survival of remains. Recent initiatives have seen the heritage community and industry work together to better record discoveries. The Aggregates Levy sustainability fund has initiated a protocol for reporting finds of archaeological interest from material dredged from the seabed. Human and animal remains as well as finds of wreck have all been reported by workers at wharves under the scheme (Milne 2007). Better reporting and sharing of this data in future will be beneficial for both parties, allowing better mitigation to avoid impacts. It will aid future identification of significant remains, and allow archaeologists to record important finds.

The discovery of an Elizabethan merchantman in the Thames Estuary in 2003 acts as a case study for industry and the heritage sector working together. It was found by the Port of London Authority during advance dredging for the London Gateway. The remains of the wreck were removed and the archaeological research was paid for by the PLA. Important information was gained from the work - this find is one of a very small number of vessels recovered that can be dated to the Elizabethan period (Flatman 2007). It is important that information from such discoveries is added to the county HER to aid future planning.

Quality of the Water Environment

Changes to the marine environment have the potential to seriously impact on the preservation of fragile archaeological remains. Secondary impacts to work in the marine zone include the creation of sandbanks which can potentially affect access to sites, as well as changes in biodiversity and marine life which may also impact on the survival of remains.

Recreation

There is vast potential to use the coastal and marine historic environment for the benefit of recreational users such as walkers and cyclists, and for water

based activities such as sports diving. Already a number of wreck sites have dive trails for visitors and divers can play an important role in checking the condition and survival of underwater sites (Dorset 1999). A number of coastal heritage and defence sites are already readily accessible for visitors. Trails of coastal defences in Kent including Battle of Britain monuments in the Folkestone area have been created under the Historic Fortifications Network Project.

Regeneration and Coastal Towns

Historic buildings and remains can help new communities gain a sense of place and belonging. Similarly, they can help to regenerate older communities - older buildings and monuments often form the most distinctive and prized elements of a modern town. As the regeneration of deprived coastal towns and areas takes place, the historic environment can be central to this process, helping create places of which we are proud, that people want to live in and visit. Putting new businesses into old buildings is one way of ensuring historic continuity in regeneration. It will also be important to change the present government stance of levying VAT at 17 ½ (currently 15%) per cent on repairs and renewals, but at zero per cent on new build, thereby providing no incentive to reuse existing historic buildings.

Shoreline Management

The historic environment can play a key role in shoreline management plans. The effective inclusion of heritage assets in SMPs depends on identifying coastal heritage assets, evaluating their significance and potential and assessing which may be at risk from coastal change (see also Murphy, 2008: 1) It is also important to allow for appropriate heritage expert involvement in the preparation of SMPs and subsequent more detailed plans.

The next phase of Rapid Coastal Zone Assessment Survey from South Foreland to Portsmouth will seek to provide information that can be used as part of Defra's Shoreline and Estuary Management Programme thereby helping to ensure appropriate protection, or mitigation of damage, to historic assets (Murphy, 2008: 4). There are also issues in relation to mitigation of the effects of coastal management decisions. It is argued at present that no mitigation is necessary in relation to a management action of no active intervention even though this may have the effect of allowing destruction of heritage assets.

Tourism and the Visitor Economy

The coastal and marine historic environment has great potential for tourism. Already some of the most popular attractions in Kent are coastal and maritime heritage sites, for example Dover Castle and Chatham Historic Dockyard. Other sites have the potential to capture the public imagination, and can form key parts of museum collections. Efforts should be made to increase public awareness of fragile coastal heritage remains with the benefit of increasing understanding and enjoyment (Williams and Brown, 1999: 9). The historic environment can play an important role in education. The involvement of local groups and others in their coastal heritage will be increasingly important for future protection. There is huge potential for public involvement in maritime

research, and the foreshore is an excellent place for community projects as it is relatively common land (Milne 2007).

Policy directions for the Historic Environment on the Kent coast

The following questions in relation to policy direction are proposed:

1. How can we improve the baseline data on which all decisions about the coastal and maritime historic environment are made?

- What should be done with the already large archive of materials stored from work in the marine environment?
- What can be done with the digital archives?
- Should all relevant Local Authorities have mandatory Coastal and Maritime Historic Environment Records?
- How can industry and other users of the marine environment contribute to the development of this archive?
- Can more be made of the data collected during work of industry?
- How can data acquired in the field for other purposes be used by archaeologists?
- What already completed studies from other disciplines can contribute to this?
- How can we increase the accuracy of data?
- How can we establish benchmark data/models and frameworks upon which better archaeological interpretation and management decisions can be based?
- How can we improve the record of coastal and maritime archaeology held nationally and locally?
- Where should future research focus?
- Is there a need to develop research frameworks specifically for coastal and maritime heritage?

2. Should/How can protection for the coastal and maritime historic environment be increased so that it is the same as terrestrial heritage sites?

- How can we stop/mitigate the loss of important heritage remains in the coastal and marine environment?
- Should we afford seamless protection for sites underwater as well as those on land?
- How could this be achieved?
- Will the new Marine Bill and Heritage Protection Bill do enough in this respect?
- Could the existing legislation be used to better effect ie. Ancient Monuments and Archaeological Areas Act?
- Should we be restricting activity on these heritage sites or bringing them into the wider consciousness so that they are better understood and cared for?
- Is in-situ preservation always appropriate?

3. What can the heritage sector do to better promote the protection of the historic environment and the benefits to all coastal users?

- Are there ways in which industry can benefit by supporting heritage conservation?
- Can early reporting now allow for better mitigation in the future?
- What can we do to bring about better data sharing and finds reporting?
- How can we use education and promotion to increase public awareness of the coastal and maritime historic environment, and the need for its conservation?
- Could sites be better monitored by using the licensing system of the Protection of Wrecks Act whereby divers could act as site wardens to check on the survival and condition of sites?

4. How can we promote widespread support for the conservation of the coastal and maritime historic environment? (From Dorset Topic Paper)

- How can we promote awareness of coastal and the maritime historic environment?
- Should we do more to publish and promote important archaeological work and discoveries?
- How can we better involve local communities and the public sector?
- Could training be given to allow more local involvement?
- Could local monument wardens allow for better protection of heritage sites, and add a sense of local ownership of the historic environment?
- How can we equate the relevance of human history with the current global situation?
- Can we make more of climate change, the impact of the natural environment on our ancestors, and the dynamic nature of our coast?

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