

Project Title: Greater Thames Estuary Research Framework Review

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THEME - THE DEVELOPMENT AND PALAEOENVIRONMENT OF THE THAMES ESTUARY

Part 1; Section 2.0

Framework Objective 1A

To increase understanding of the physical evolution of the Thames estuary during the Pleistocene and of the social and cultural strategies of early human populations in relation to changes in environment and climate.

| 1A.SO1 | developing further the framework for, and our understanding of, environmental and climatic change during the Pleistocene. | | |
|--------|---|--|--|
| 1A.SO2 | developing knowledge of the evolution of the Thames and Medway drainage systems in the Pleistocene | | |
| 1A.SO3 | identifying key areas where primary context sites might be preserved and where evidence relating to current research objectives might be located. | | |
| 1A.SO4 | Developing an appreciation of the contribution made by secondary context (reworked) material to understanding the range and distribution of Lower and Middle Palaeolithic activity. | | |

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|---|---|----------------------------|
| Developing a targeted programme of recording and sampling of geological exposures to improve knowledge of geological sequences and their environmental and chronological context | Take forward the recommendations for further investigation in the ancestral Medway valley | 1A.SO1 |
| Utilising geotechnical borehole and associated data to improve knowledge of geological sequences and their environmental and chronological context | Collation of borehole records for modeling and interpretation e.g. of approach, Middle Thames Northern Tributaries, Medway Valley Palaeolithic Project and the Lea Valley Mapping Project | 1A.SO2 |
| Collate available geotechnical borehole / test-pit data and mapping areas of extant superficial deposits (classified in terms of their likely temporal and spatial characteristics) | As above – incorporating BGS mapping e.g. of approach could also include the Greater Thames Mineral Extraction Sites Survey | 1A.SO1 1A.SO2 1A.SO3 |
| | Priority is those areas where more recent (ie. Holocene) sequences are also present given the nature of development around the estuary | |
| Compile environmental data in a systematic way, to provide palaeoenvironmental frameworks, to agreed standards provided by recent guidelines | Build upon the London region pollen database - expand geographically - expand range of data incorporated | 1A.SO1 |

| Compile palaeogeographic maps illustrating the physical evolution of the study area | Follow on from the projects detailed above plus sea level studies | 1A.SO2,1A.SO1 |
|---|---|----------------------------|
| Assessment of historic maps and antiquarian records relating to earlier quarrying to locate more accurately known artefact collections and assess the extent of significant geological deposits | | 1A.SO1 1A.SO4 |
| Developing effective assessment techniques for Pleistocene / Paleolithic deposits. | MVPP has suggested possibilities which could trialed and assessed | 1A.SO2 1A.SO3 |
| Characterisation and mapping of the sea-bed resource | Extending Historic Seascape Characterisation of the estuary | 1A.SO1 1A.SO2 1A.SO3 |

Framework Objective 1B

To develop a better understanding of the Upper Palaeolithic and Mesolithic around the estuary, which has been identified as a 'gap' in the record.

| Ī | 1B.SO1 | Integration of existing databases |
|---|--------|--|
| - | 1B.SO2 | To carry out field investigation of sites which previous studies have identified as having high potential |
| 1B.SO3 To develop predictive techniques to identify key areas where sites may be found and good preservational contexts | | To develop predictive techniques to identify key areas where sites may be found and good preservational contexts |

<u>Initiatives</u> that address or contribute to the Framework / Specific Objectives outlined above (in no particular order)

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|--|---|-----------------|
| Improve the integration of existing datasets | Ensure that the data from the recently developed Jacobi and Wymer databases is incorporated into the relevant regional HER and the NMR. Ensure that data from PPG16 investigations is incorporated into the relevant HER (possible enhancement project) Ensure that data from PAS investigations is incorporated into the relevant HER (possible enhancement project) Ensure that this data is accessible (e.g. via ADS) | 1B.SO1 |
| Carry out field investigations | Field investigations Fenn Creek (Mesolithic) Erith / Purfleet forests | 1B.SO2 |
| Further develop predictive modeling | Follow on from the approach of modeling projects e.g. MVPP, Lea Valley Olympics work | 1B.SO3 |

Framework Objective 1C

To increase understanding of the physical evolution of the Thames estuary and associated climatic and environmental change and their relationship with human activity during the Holocene.

| 1C.SO1 | characterising key stratigraphic units and establishing the vertical sequence of buried landsurfaces and other deposits throughout the | | |
|--------|---|--|--|
| | estuary | | |
| 1C.SO2 | developing understanding of coastline and sea level change in the estuary through time | | |
| 1C.SO3 | developing models for environmental change related to the evolution of the estuary's geometry | | |
| 1C.SO4 | developing appreciation of human interaction with this environment, particularly with regard to the exploitation and management of woodland | | |
| | and marshes | | |
| 1C.SO5 | exploring the potential of submerged woodland for dendrochronology, woodland structure, composition and exploitation, and evidence of | | |
| | environmental change | | |

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|---|--|----------------------------|
| Carry out collation and synthesis of existing environmental data (published and unpublished) across the Greater Thames | Build upon the London region database (Pollen) Synthesis of the above | 1C.SO1 1C.SO5 1C.SO3 |
| Carry out compilation and analysis of existing borehole data to agreed standards | Collation of borehole records for modeling and interpretation e.g. of approach, Middle Thames Northern Tributaries, Medway Valley Palaeolithic Project and the Lea Valley Mapping Project. The priority is those areas where more recent (ie. Holocene) sequences are also present | 1C.SO1 |
| Field investigation of woodland | Erith, Rainham and similar exposures of 'submerged forests' in the Crouch and Blackwater – the latter have not been not visited/recorded in recent years | 1C.SO5 |
| Produce palaeoenvironmental frameworks for the estuary | Develop project/s to address this | 1C.SO1 |
| Detailed investigation of selected areas by means of paly- nological, soil micromorphological, molluscan and plant macrofossil analyses | Develop projects to take this forward; the RSPB reserves may provide areas where this could begin | 1C.SO3 1C.SO4 1C.SO5 |
| Ensure that standards are developed an, as important, promoted | | |

THEME - MARITIME HERITAGE

Part 1; Section 3.0

Framework Objective 2A

To examine the role of the estuary in providing internal coherence through trading and other maritime contacts and as a major artery of communication between England and continental Europe

| 2A.SO1 | Developing an understanding of the role of maritime activity in relation to settlement and land use around the estuary. | | |
|--------|---|--|--|
| 2A.SO2 | Developing an understanding of the social and economic role of sea-borne trade and other maritime activity within and beyond the estuary. | | |
| 2A.SO3 | Researching documentary sources to increase knowledge of surviving and no longer extant sites and vessels and trade and communication | | |
| | patterns. | | |
| 2A.SO4 | Review and collation of existing wreck data to improve the available baseline information | | |

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|--|---|-----------------|
| Locate and record the remains of vessels and associated structures within the sub-tidal and intertidal zone | Desk based and field survey around the Essex coast (geographical 'gap') | FO2.SO4 |
| Identify gaps in knowledge and develop a strategy for further work on other types of wrecks/hulks around the intertidal zone to | Synthesizing the results of the RCZAS surveys (desk and field survey) and Marine ALSF projects | 2A |
| Carry out systematic record enhancement; most wrecks are too inaccurately located for designation/conservation management purposes | Enhancing the record of the <i>London</i> with a particular focus on addressing the <i>London/King</i> dilemma Carry out preliminary desk based work to be followed by field survey in the Estuary building on existing datasets | 2A |
| Establish protocols for levels of recording of vessel remains in order to establish consistent and comparable inventories | Develop a project to address this (tie in to Maritime research framework) Assist in the development of the national maritime research framework | 2A |
| Selecting vessel remains for more detailed study and recording | | 2A |
| Investigating the role of the estuary as a ship and boat-building area | Carrying out studies of ship/boat-building in towns around the estuary e.g. Faversham, Leigh on Sea, Tollesbury, Colne Estuary | 2A |

| Better understand the nature of cargoes and their movements in | Development of research projects on this subject | 2A |
|---|--|----|
| relation to local and more distant trade | | |
| Better understand the extant datasets relating to Thames Barges | Synthesising the various data sets available for Thames Barges | 2A |
| | to develop a programme of further work | |
| Maritime recording of aviation wrecks | Opportunistic recording within existing guidelines (may be war | 2A |
| | graves) | |

THEME - INTERTIDAL AND RELATED ARCHAEOLOGY Part 1; Section 4.0

Framework Objective 3A

To develop a full appreciation of the range and context of remains within the intertidal zone as evidence of environmental change and the exploitation and management of the intertidal resource.

| 3A.SO1 | Completion of baseline survey to provide a framework for defining further research priorities in the intertidal zone, with the North Kent Coast | | | |
|--------|--|--|--|--|
| | identified as a priority | | | |
| 3A.SO2 | Increasing understanding of remains associated with fishing, saltworking etc. and their function in relation to the intertidal zone | | | |
| 3A.SO3 | Integrating the specialised sites and structures within the intertidal zone into wider patterns of interpretation and explanation. Some progress has | | | |
| | been made towards this in both Kent and Essex but it remains relevant | | | |
| 3A.SO4 | Selecting sites for further examination where the preservation of organic materials will contribute to archaeological understanding beyond the | | | |
| | wetland zone through a process of analysis and synthesis | | | |
| 3A.SO5 | Publication / dissemination of the results of surveys and the promotion of intertidal archaeology in general | | | |
| 3A.SO6 | Developing a robust understanding of the effects / impacts of the coastal management options on the historic environment resource | | | |

| Initiative Description: | Approach: | Contributes to: |
|--|---|-----------------|
| | Methods / projects / sites that can be used, studied to further | |
| | the initiative | |
| Collating information derived from existing collections of aerial | NMP complete for Kent and Essex and specialist work has | 3A |
| photographs and commissioning new surveys as appropriate | been carried out. | |
| | Project/s to review the results – with a particular view to | |
| | interpretation and synthesis and relation to other GIS datasets | |
| | 'Ground truthing' of non-field based project results | |
| Exploring the possibilities that other datasets have to contribute | Lidar to be incorporated into studies where opportunities arise | 3A |
| to the framework objectives and the development of the strategy | (e.g. publication of the Essex fishtraps monitoring) | 0, 1 |
| (e.g. LiDAR) | (· · g · p · · · · · · · · · · · · · · · | |
| | Continuing communication / collaboration with bodies outside | |
| | the Heritage sector through bodies such as TEP | |
| Carry out monitoring surveys in areas of potential/threat | Identify areas of potential and threat | 3A |
| | Carry out long-term monitoring survey | |
| Review and analysis of the results of the variety of baseline | Ensure that the material from around the estuary is in the | 3A |
| surveys | relevant HER and accessible (e.g. through ADS) | |
| | | |
| | Develop thematic reviews of the surveys | |

| Assess the accuracy of the rapid identification of sites/monuments made during RCZAS | 'ground truthing' to test the rapid initial identifications made in the field | 3A |
|---|---|----|
| Carry out pilot fieldwork on salterns /red hills in order to better understand these monuments and to develop methodologies for their investigation | | 3A |
| Enhancing therecord of known extant sites/monuments | Opportunistic recording of sites | |
| Investigation and analysis of the Hullbridge, Essex palaeochannel at Fenn Creeek | Field investigation at Fenn Creek | |
| | | |
| | | |
| | | |

Framework Objective 3B

To develop a holistic approach to the study of sea walls and flood defences in the estuary landscape as evidence of climatic change, and reclamation, management and exploitation of the marshland resource.

| 3B.SO1 | Developing an overview of the evolution of sea defences in relation to sea level and climatic change |
|--------|--|
| 3B.SO2 | Developing an understanding of the construction methods of sea walls and their water control mechanisms. |
| 3B.SO3 | Developing an understanding of the historical context of sea defences in terms of secular and ecclesiastical land ownership and exploitation |

| Initiative Description: | Approach: | Contributes to: |
|--|---|-----------------|
| | Methods / projects / sites that can be used, studied to further | |
| | the initiative | |
| Developing our understanding of seawall as one of the most | Identifying sites of extant of former sea walls / counterwalls | 3B.SO1 |
| extensive monuments around the estuary | through desk-based assessment /analysis of existing studies (e.g. various Essex grazing marsh surveys) Develop a programme of field investigation (in consultation with nature conservation bodies where appropriate) to establish good practice methodologies | 3B.SO2 |
| Establishing a chronological framework for the development of sea defences | Desk-based project supported by field survey – extend scope of Gramolt | 3B.SO2 |
| Documentary research into the evolution of sea defences | Desk-based project supported by field survey – extend scope of Gramolt | 3B.SO1-3 |

Framework Objective 3C

To continue develop a holistic approach to the study of the extant grazing marsh and former wetlands around the estuary to understand the physical survival of historic monuments and landscapes; to consider this as evidence of climatic, social and economic development around the estuary through the centuries.

Initiatives that address or contribute to the Framework / Specific Objectives outlined above (no particular order

| Initiative Description: | Approach: | Contributes to: |
|---|---|-----------------|
| | Methods / projects / sites that can be used, studied to further | |
| | the initiative | |
| Study of grazing marsh | Completing grazing marsh surveys (desk-based and walkover) | 3C |
| | of the extant and former marsh around the estuary | |
| Understanding the physical survival of historic monuments and | | 3C |
| landscapes | relating them to cartographic and documentary evidence | |
| | | |
| | Long term monitoring of known sites/monuments | |
| Identification and dating of the historic monuments and | Basic identification and dating of earthworks through field | 3C |
| landscapes | investigation – including excavation | |

Framework Objective 3D

To continue to develop methodologies for the investigation of the intertidal zone.

| Initiative Description: | Approach: | Contributes to: |
|--|---|-----------------|
| | Methods / projects / sites that can be used, studied to further the initiative | |
| Continue to develop techniques for recording in the intertidal zone | Building fieldwork programmes on the results of desk-based surveys Monitoring and other surveys in differing physical/topographical environments | 3D |
| Consider the potential for providing condensed word lists for use in RCZAS / identifying gaps in available lists | Seminar/discussion between practioners and HER officers | 3D |
| Develop experimental research protocols related to marine inundation of archaeological soils and sites | e.g. Macphails's study at Wallasea Island. | 3D |
| Investigating sites specifically related to exploitation of the coast, such as fish processing, landing places etc | Fish traps, oyster farming complexes (e.g. Paglesham area) | 3D |

THEME - LAND-USE AND OCCUPATION

Part 1; Section 5.0

Framework Objective 4A

To further understanding of the evolution of settlement and other land-use patterns around the estuary in terms of their social, economic and political development.

| 4A.SO1 | analysing the adaptation and evolution of settlement patterns in response to coastal change |
|---------|---|
| 4A.SO2 | developing interpretation and explanation of sites along the coast of the estuary which integrate such sites with data from the intertidal zone and |
| | buried landscapes |
| 4A.SO3 | developing an understanding of early agriculture and land use on terrace gravels and brickearth |
| 4A.SO4 | examining the impact of the Roman Conquest on settlement patterns and the social, economic and political articulations of the landscape |
| 4A.SO5 | examining the chronology of the Anglo-Saxon migrations into the areas surrounding the Thames Estuary and the impact on existing settlement |
| | and material culture |
| 4A.SO6 | examining the development in the Anglo-Saxon period of new organisational and administrative frameworks based on secular and ecclesiastical |
| | estates and "territories" |
| 4A.SO7 | examining the impact of the Norman Conquest on settlement patterns and estate organisation |
| 4A.SO8 | examining the role of the town from the Roman period onwards |
| 4A.SO9 | analysing the pattern of settlements of all types through time as evidence of the social, economic and political evolution of the study area |
| 4A.SO10 | examining the impact of the church on the historic landscape in medieval times. |

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|--|--|-----------------|
| synthesis of the results of projects which have been carried out around the hinterland of the estuary (both published and 'grey' literature) and considering how their results relate to the broad research objectives outlined above. | This could perhaps be best carried out by developing a series of thematic projects. | 3A.SO1 |
| Understanding the development of below ground deposits / alluvial sequences | Collation and analysis of borehole and palaeoenvironmental records | |
| Understanding of the role of the estuary through time | selecting sites for further examination and investigation which specifically contribute to this e.g. landing places, salterns (relates this theme with those of the intertidal and marine) | |
| Developing programmes to better our understanding of the Mesolithic Period Around the Estuary | | |
| Better understanding the chronology of the prehistoric period around the estuary | Developing radiocarbon dating programmes for prehistoric periods in general. This applies to already archived projects as well as to current and future ones | |
| Testing current hypotheses concerning the characterisation of medieval rural settlement in relation to sub-provinces and local regions and exploring social, economic and political evolution against this framework | | |
| Identification of the sites of 'lost' and extant farms, considering them in relation to agricultural developments / economy, and their relationship to the estuary | Desk based research supported by field survey similar to the process used for the development of industrial gazetteers | |
| To consider if there are regional/landscape variations in settlement location, density or type | | |
| Study of field systems and bio- archaeological evidence from associated wells/watering holes and settlement features | London Gateway results could inform this | |
| Development and role of the towns, changes in their internal layouts and housing densities, role as centres of supply and demand in relation to maritime trade | Review, update and revision of existing EUS Detailed research into selected towns | |
| Considering relative settlement distribution and cultural links | Analysis of the distribution of artefacts recorded by the Portable Antiquities Scheme or recovered by archaeological fieldwork | |
| Creating models of the interrelationships that can be tested by further research and investigation | | |

THEME - HISTORIC BUILT ENVIRONMENT

Part 1; Section 6.0

Framework Objective 5A

To develop an understanding of the built heritage around the estuary

| 5A.S | 01 | Identifying important themes and/or areas around the estuary for research and recording |
|------|----|--|
| 5A.S | 02 | Developing inventories of the built heritage around the estuary to provide a platform for comparative studies / characterisation |

| Initiative Description: | Approach: | Contributes to: |
|--|--|-----------------|
| | Methods / projects / sites that can be used, studied to further | |
| | the initiative | |
| Considering the importance of key groups of the post-1840s building stock, which is largely unlisted, | Identifying and inventorying for research and recording | 5A.SO1 |
| Considering the key building types associated with the estuary | Identifying and inventorying key building types (e.g. sail lofts, warehouses/dockyard buildings, public houses, seamen's missions) | 5A.SO2 |
| Synthesis and analysis of data uncovered by building recording projects (building types associated with the estuary) | Data collation project bring together the material from the disparate sources | 5A.SO2 |
| Establishing the distribution of extant and lost farmsteads | Programme of documentary research, creating an inventory of sites followed by rapid field survey | 5A.SO2 |
| Syntheses of the significance, economic and social importance of classes of historic buildings (associated with the estuary) | | |

Framework Objective 5B

To further the understanding of the evolution of the historic built environment along the estuary with special reference to structural form and function, the aspirations of the associated individuals and communities and the use of local building materials.

| 5B.SO1 | considering the growth of seaside towns and resorts along the Thames |
|--------|--|
| 5B.SO2 | considering the growth of industrial communities |
| 5B.SO3 | examining the impact of London on settlement character and form |
| 5B.SO4 | considering the growth of suburbs |

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|---|---|-----------------|
| Patterns of development of seaside towns | Undertaking a further programme of documentary research, supported by field survey – including the completion of the Essex Seaside Heritage Project | |
| The extent and nature of 'plotland' communities on both sides of the Thames during the inter-war period | Programme of documentary research followed by rapid field assessment of selected areas | |
| assess the evidence of standing structures for understanding urban growth and the development of industrial communities | | |
| assessing the effect of urban and industrial development on rural sites | | |
| Considering the origin, development and character of suburbs | Characterisation / area appraisal of suburban areas around the estuary | |
| Considering the range of building types, their function and the clues they contain for cultural and ideological associations | | |
| Considering the form, character and chronology of individual properties (estuary specific) | | |
| the meanings and values of domestic and public gardens | | |
| Expanding our knowledge of public buildings – | | |
| Considering the impact of private and public enterprise (government initiatives, army and naval authorities, etc) in urban and infrastructure development | | |
| · | | |

THEME - HISTORIC DEFENCES AND OTHER MILITARY INSTALLATIONS

Part 1; Section 7.0

Framework Objective 6A

To develop an understanding of defensive systems around the estuary and their role in relation to the estuary, London and southeast England.

| 6A.SO1 | examining the impact of changes in military technology and tactical and strategic approaches on individual defence sites and defence systems |
|--------|--|
| 6A.SO2 | developing understanding of the evolution of the estuary's defences in relation to political change |
| 6A.SO3 | developing interpretations of these defences integrated with wider patterns of settlement, commerce and landscape. |

| Initiative Description: | Approach: Methods / projects / sites that can be used, studied to further the initiative | Contributes to: |
|---|--|-----------------|
| Establishing a basic inventory of defence sites related to changing defensive systems within the estuary integrated into the region's SMRs / HERs | Fill in the 'gaps' in existing inventories – for example World War I and the Cold War period | 6A.SO1-3 |
| Review and synthesis of existing inventories to identify sites for further work (considering the objectives above) | Desk-based studies leading to a programme of dissemination and publication | 6A.SO1-3 |
| detailed study of selected sites which illustrate technological development or are key to the understanding of defensive systems | Field survey supported by documentary research | 6A.SO1 |
| nalyzing variations between fortifications as planned and as built. | Field survey supported by documentary research | 6A.SO1 |
| Identification and survey / more detailed investigation of vulnerable historic defence / military sites | e.g. East Mersea Blockhouse | 6A.SO1-3 |
| Considering the development of naval dockyards and their relationship with other military/defence sites and their environs | Naval dockyards at Chatham, Sheerness etc. | 6A.SO1-3 |
| Identifying structures which had a key role in technological developments | e.g. the Boat Store at Sheerness dockyard | 6A.SO1-3 |

| Considering the links between defence sites / military installations | e.g. Chatham Lines | 6A.SO1-3 |
|--|--|----------|
| and their infrastructure and support framework (e.g. barracks, | | |
| camps, manufacturing, shipping) | | |
| Technological developments in dockyard construction | e.g. Sheerness Dockyard | 6A.SO1 |
| Considering the strategic and organizational links – as a relationship between fortifications, armies and fleets. | | 6A.SO1-3 |
| Considering the changes to the coastline of the estuary and the extent to which this influenced the location etc. of defence sites | | 6A.SO1-3 |
| Study strategies for promoting the beneficial reuse of former defence sites | eg Woolwich, Chatham, Shoeburyness housing, etc | 6A.SO1-3 |
| Development of links with the public / local groups. | Oral history has the potential to make a significant contribution to this theme – link to local record offices | 6A.SO1-3 |

THEME – INDUSTRY AND TRANSPORT Part 1; Section 8.0

Framework Objective 7A

To develop an understanding of the estuary's industrial archaeology remains and their relationship to the history of industrialisation in the estuary.

| 7A.SO1 | Continuing the systematic approach to the study of industrial archaeology and relating it to existing historical studies |
|--------|--|
| 7A.SO2 | identifying important sectors of industrial activity for research and recording. e.g. the pharmaceutical industries, refineries, industrial/factory |
| | estates |
| 7A.SO3 | identifying important or representative sites for research and recording through synthesis of the results of the various inventory projects |
| 7A.SO4 | Identifying important or representative sites which are vulnerable (e.g. disused and decaying) in order to develop programmes for research and |
| | recording |
| 7A.SO5 | developing a strategy for the beneficial reuse and/or interpretation of selected sites (see military sections for examples of regeneration at the |
| | Royal Arsenal, Woolwich) ERIH |
| 7A.SO6 | Publishing of the results of important individual sites (e.g. the Royal Arsenal, Woolwich) and groups of sites (e.g. the various closely inter-related |
| | sites around Chatham) |
| 7A.SO7 | Research into the wider effects of industrialization and transport changes (e.g. the development of industrial communities, the effects of |
| | migration of groups to industrial cntres, middle class migration to suburbia/ countryside) |
| 7A.SO8 | Research into the effects of de-industrialisation / changes in the types of industries to be found around the estuary |

| Initiative Description: | Approach: | Contributes to: |
|--|---|-----------------|
| | Methods / projects / sites that can be used, studied to further | |
| | the initiative | |
| Establishing, as a sub-set of the region's HER / SMRs, an inven- | thematic inventories in London | 7A.SO1 |
| tory of industrial sites and monuments related to the estuary | Thematic inventories for those industries not yet studied (e.g. | |
| (baseline research to provide a platform for further research within | pertro-chemeical) | |
| and beyond the estuary) | | |
| Developing synthetic studies of the industrial heritage resource | Thematic / regional studies for dissemination/ publication | 7A.SO2-4 |
| using the results of the baseline studies | | |
| Studies of late 20 th century industries and places of work and | This might include the electronics industry, the impact of the | 7A.SO1 |
| changes of work patterns. | internal combustion engine, consumerism and leisure | |
| Considering how the growth and decline of mid to late 20 th century | Desk based studies supported by field survey | 7A.SO7 |
| industry has effected the landscape, economy and social | | |
| character of the estuary | | |

| Considering the inter-relationships between different industries | Desk based studies supported by field survey | 7A.SO6 |
|---|--|-----------|
| (e.g. the chemical industry and explosives manufacture) | | |
| Considering the links between the natural resources of the estuary and industry | | 7A.SO6 /8 |
| Studying the development (and decline) of industrial communities | | 7A.SO7 |
| Studying the effects of industrialisation around the estuary on its surroundings. | Queenborough and Rushenden / England's Past for Everyone | 7A.SO7 |
| Studying transient populations | | 7A.SO7 |

THEME - METHODOLOGY, MANAGEMENT AND PROMOTION Part 1; Section 9.0

Framework Objective 8A

To exploit the potential of the Thames estuary as a study area for methodological innovation pertinent to the detection, recording, monitoring and management of estuarine sediments and sites

Specific objectives include:

Data standards

| 8A.SO1 | Promotion of data standards for all kinds of archaeological investigation within the region; xamples of data standards are now available e.g. |
|-------------|---|
| through the | e ADS (ads.ahds.ac.uk/standards) |
| 8A.SO2 | Consider the compatibility of our existing datasets around the region |
| 8A.SO3 | consider means of managing the web-based historic environment resource |

Stratigraphic studies

| 8A.SO4 | extending the use of geotechnical/geophysical techniques to supplement conventional borehole/test pit data. | |
|--------------|--|--|
| 8A.SO5 | developing the use of GIS and other software to model palaeosurfaces in three dimensions | |
| 8A.SO6 | refining techniques for recognizing buried landsurfaces and understanding their palaeoenvironmental context | |
| 8A.SO7 | promoting techniques to refine understanding of depositional environments and stratigraphic sequences (e.g. using X-radiography to examine | |
| bedding stru | bedding structures and discontinuities) | |
| 8A.SO8 | establish what other non-archaeological data sets may be available and if / how they could contribute to research around the estuary (e.g Lidar) | |

Site prospection

| 8A.SO9 | developing a continuing systematic programme of aerial photography |
|-------------|--|
| 8A.SO10 | establishing an agreed data standard for ground-based survey of the intertidal zone. There has been a review of RCZAS methodology which |
| discusses d | data standards in consultation with field workers |
| 8A.SO11 | testing the relevance of magnetic susceptibility, microcharcoal density and phosphate concentrations from core samples as indicators of nearby |
| human activ | vity. |
| 8A.SO12 | Developing regional / local geoarchaeological models |

Site recording and interpretation

| Onto roboran | ng and interpretation |
|---------------|--|
| 8A.SO13 | developing techniques permitting rapid recording within low-tide 'windows'. There are likely to be continuing technological improvements in both |
| hardware ar | nd software in coming years. |
| 8A.SO14 | studying the taphonomy and composition of assemblages of macrofossils and microfossils in modern estuarine situations to aid interpretation of |
| sub-fossil as | ssemblages |
| 8A.SO15 | assessing the value of three-dimensional sampling of 'submerged forests' and associated peats for dividing data on vegetation structure, |
| composition | n and change |
| 8A.SO16 | Considering the use of GIS /databases as an interpretive tool |

Site monitoring and management

| | ing and management |
|----------------|---|
| 8A.SO17 | monitoring erosion rates of exposed palaeosurfaces in the intertidal zone at several contrasting locations and other types of site found in the |
| intertidal zor | ne |
| 8A.SO18 | monitoring the effects of desiccation at low tide, microbial activity and physical erosion on intertidal wooden structures |
| 8A.SO19 | assessing the efficacy of sand-bagging and other physical barriers on erosion rates at critical intertidal sites |
| 8A.SO20 | monitoring the effects of re-watering on de-watered sites following Managed Realignment |
| 8A.SO21 | Developing techniques for carrying out monitoring on former wetland areas (e.g. work at Vourne-Putten and Broekpolder |
| www.planaro | ch.org//nar27broekpolderuk) |
| 8A.SO22 | Assessing impacts of flood management options through a review of the existing information and testing hypothesis |

Framework Objective 8B

To promote understanding of the archaeology of the Greater Thames and utilize the resource for general educational purposes and informed tourism, alongside academic study, primary and secondary level education so as to broaden understanding and appreciation of the region's past.

Specific objectives include:

| 8B.SO1 | Developing links between the historic environment of the Greater Thames to a range of National Curriculum subjects |
|-----------|--|
| 8B.SO2 | involving museums, which play a key role within the region, in efforts to promote understanding and appreciation of the region's past |
| 8B.SO3 | enhancing the use of HER / SMRs for educational purposes |
| 8B.SO4 | creating education packs dealing with various aspects of the region's past |
| 8B.SO5 | continuing to develop interpretative publications, heritage trails and displays to increase use and appreciation of the archaeological resource in the |
| Greater - | Thames |

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