

19 Historic Environment

Introduction

- 19.1 This chapter of the PEIR provides a preliminary assessment of the effects on the historic environment arising from the OMSSD project, in respect of land at the Oikos Facility (hereafter referred to as 'OMSSD project site'). Presently already in use as a liquid bulk product storage facility, the OMSSD project site is located on the riverside of the River Thames, in Canvey Island, Essex (NGR: TQ 77810 82323; Figure 19.1).
- 19.2 This preliminary assessment of the historic environment has been undertaken by Cotswold Archaeology (CA), a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). This chapter has been prepared in accordance with the 'Standard and Guidance for Historic Environment Desk-Based Assessment' published by the Chartered Institute (2020).
- 19.3 The composition and development of the historic environment within the OMSSD project site and wider landscape are discussed in this report. A determination of the significance of any heritage assets located within the site, and any heritage assets beyond the OMSSD project boundary that may potentially be affected by the development proposals, is presented. Any potential development effects upon the significance of these heritage assets (both adverse and/or beneficial) are then described.

Definition of the Study Area

- 19.4 An initial analysis was undertaken to identify a relevant and proportionate study area. This analysis utilised industry-standard GIS software, and primarily entailed a review of recorded heritage assets in the immediate and wider landscape, using available datasets.
- 19.5 On this basis a 1km study area, measured from the boundaries of the Oikos Facility, was considered sufficient to capture the relevant Essex Historic Environment Record (HER) data, and provide the necessary context for understanding archaeological potential and heritage significance in respect of the OMSSD project. All the spatial data held by the HER – the primary historic data repository – for the land within the study area, was requested. The records were analysed and further refined to narrow the research focus onto those of relevance to the present assessment. These are illustrated on the figures accompanying this preliminary report (Figures 19.1 to 19.9).
- 19.6 Through the consultation undertaken (see below for details) it was decided to extend the study area for the purposes of the settings assessment, for which a minimum of a 5km buffer from the OMSSD project site was used.

Assessment Methodology

- 19.7 This preliminary assessment has been informed by a proportionate level of information sufficient to understand the archaeological potential of the OMSSD project site, the significance of identified heritage assets, possible changes to settings and any potential development effects. This approach is in accordance with the provisions of the NPPF (2019), the NPSfP (2012)⁵⁸⁷ and the guidance issued by ClfA (2020)⁵⁸⁸. The data has been collected from a wide variety of sources, summarised in Table 19.1.

Data and Information Sources

Table 19.1: Key data sources

Source	Data
National Heritage List for England (NHLE)	Current information relating to designated heritage assets, and heritage assets considered to be 'at risk'.
Essex Historic Environment Record (HER)	Heritage sites and events records, Historic Landscape Characterisation (HLC) data, and other spatial data supplied in digital format (shapefiles) and hardcopy.
Historic England Archives	Additional sites and events records, supplied in digital and hardcopy formats.
Essex Record Office (ERO)	Historic mapping, historic documentation, and relevant published and grey literature.
Historic England's Aerial Photography Research Unit	Vertical and oblique aerial photography ranging in date from the 1940s to present.
Genealogist, Envirocheck & other cartographic websites	Historic (Ordnance Survey and Tithe) mapping in digital format.
British Geological Survey (BGS) website	UK geological mapping (bedrock & superficial deposits) & borehole data.

Assessment of heritage significance

- 19.8 The significance of known and potential heritage assets within the OMSSD project site, and any beyond which may be affected by the proposed development, has been assessed and described, in accordance with paragraph 189 of the NPPF (2019), the guidance issued by ClfA (2020) and 'Historic Environment Good Practice Advice in Planning Note 2' (Historic England 2015)⁵⁸⁹. Determination of significance has been undertaken according to the industry-standard guidance on assessing heritage value provided within 'Conservation

⁵⁸⁷ Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework (NPPF)

⁵⁸⁸ Chartered Institute for Archaeologists (2020) Standard and Guidance for Historic Environment Desk-Based Assessment

⁵⁸⁹ Historic England (2015) Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment

Principles' (Historic England 2008)⁵⁹⁰. This approach considers heritage significance to derive from a combination of discrete heritage values, principal amongst which are: i) evidential (archaeological) value, ii) historic (illustrative and associative) value, iii) aesthetic value, iv) communal value, amongst others. Further detail of this approach, including the detailed definition of those aforementioned values, are set out, and advocated, by Historic England.

Assessment of potential development effects (benefit and harm)

- 19.9 This preliminary assessment provides, in detail, the ways in which identified susceptible heritage assets might be affected by the OMSSD project, as well as the anticipated extent of any such effects. Both physical effects, i.e., resulting from the direct truncation of archaeological remains, and non-physical effects, i.e., resulting from changes to the setting of heritage assets, have been assessed. Regarding non-physical effects or 'settings assessment', the five-step assessment methodology advocated by Historic England and set out in the Second Edition of GPA3 (Historic England, 2017)⁵⁹¹, has been adhered to.
- 19.10 Identified effects upon heritage assets have been defined within broad 'level of effect' categories (Table 19.2 below). These are consistent with key national heritage policy and guidance terminology, particularly that of the NPPF (2019). This has been done to improve the intelligibility of the assessment results for purposes of quick reference and ready comprehension. These broad determinations of level of effect should be viewed within the context of the qualifying discussions of significance and impact presented in this preliminary assessment.
- 19.11 It should be noted that the overall effect of the OMSSD project upon the designated heritage asset are judged, bearing in mind both any specific harms or benefits. Section 5.12 of the NPSfP considers the Historic Environment with similar requirements in the Overarching NPS for Energy EN-1.
- 19.12 In relation to non-designated heritage assets, the key applicable policy is paragraph 197 of the NPPF (2019), which states that:
- "The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset."*
- 19.13 Thus, regarding non-designated heritage assets, this preliminary assessment seeks to identify the significance of the heritage asset(s) which may be affected, and the scale of any harm or loss to that significance as shown in Table 19.2.

⁵⁹⁰ Historic England 2008 *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment*

⁵⁹¹ Historic England 2017 *Historic Environment Good Practice Advice in Planning: Note 3: The Setting of Heritage Assets (Second Edition)*

Table 19.2: Summary of level of effect categories (benefit and harm) referred to in this preliminary assessment in relation to heritage assets

Level of effect	Description
Heritage benefit	The proposals would better enhance or reveal the heritage significance of the heritage asset.
No harm	The proposals would preserve the significance of the heritage asset.
Less than substantial harm (lower end)	The proposals would be anticipated to result in a restricted level of harm to the significance of the heritage asset, such that the asset’s contributing heritage values would be largely preserved.
Less than substantial harm (upper end)	The proposals would lead to a notable level of harm to the significance of the heritage asset. A reduced, but appreciable, degree of its heritage significance would remain.
Substantial harm	The proposals would very much reduce the heritage asset’s significance or vitiate that significance altogether.

Consultation

19.14 A detailed consultation process is underway and has comments received as part of the Scoping Opinion have been discussed with consultees with several meetings held. A summary of the consultation undertaken up until now is included below in Table 19.3.

Table 19.3: Summary of consultation to date

Consultee	Date	Summary of Response	How comments have been addressed in this Chapter
Planning Inspectorate Section 4.13	May 2020	ID 4.13.10 It was considered that the baseline information within the Scoping Report had not been fully characterised.	The chapter provides baseline information built on a Historic Environment Desk-Based Assessment (Ca 2019) document, as well as other documents (geophysical survey reports, sediment analysis, borehole logs) and conclusions on a robust assessment supported by appropriate figures, photographs, guidance, data sources, field surveys, and an appropriate study area, methodology and consultation. The chapter provides clear information on the archaeological baseline, the sources collated, as well as the designated heritage assets, the study areas and viewpoints of significance and the expected levels of impact based on currently available information.
		ID 4.13.1	The chapter provides a summary of the assessment of the significance of the

Consultee	Date	Summary of Response	How comments have been addressed in this Chapter
		Explain why other listed buildings and scheduled monument within/adjacent to 1km study area are not considered to be sensitive to physical change.	designated assets and if there is any anticipated impact. This is based on walkover surveys and photographic records.
		ID 4.13.2 Include impacts from new infrastructure.	The chapter provides a summary of the assessment of the impacts, physical and non-physical, of the new infrastructure on all the receptors listed.
		ID 4.13.3 Include impacts from alterations to jetty structures and dredging.	No alterations to the jetty structure are proposed as part of the OMSSD project. Potential impacts from the proposed dredge of Jetty 2 berth pocket is included in para 19.67.
		ID 4.13.4 Assess likely significant effects on other receptors listed.	The chapter provides a summary of the expected impact on receptors based on the information collated.
		ID 4.13.5 Explain information from previous development at the Oikos Facility and how this has been used for the assessment of the OMSSD project.	Previous technical reports for groundworks within the OMSSD project site, as well as in the immediate surrounds were assessed. These included borehole logs, sediment samplings and geophysical survey reports.
		ID 4.13.6 Explain the extent of the Essex Thames Gateway Historic Environment Character Zone.	Figure 17.10 of this PEIR shows the extent of Zone 95_1 which consists of a 20th century oil and gas storage facility and its surrounding open land.
		ID 4.13.7 Include any Heritage-specific viewpoints.	Heritage specific viewpoints considered and briefly discussed within the chapter included views from and towards the heritage assets scoped in.
		ID 4.13.8 Use expert judgement to consider impact.	The chapter includes preliminary information on the predicted level of physical and non-physical impacts.
		ID 4.13.9 Include potential impact of dredge depth on Pleistocene deposits.	The chapter includes preliminary information on the predicted level of physical impacts. Further forthcoming information will be available for the OMSSD ES chapter.

Consultee	Date	Summary of Response	How comments have been addressed in this Chapter
Historic England, Essex County Council, Castle Point Borough Council	November 2020	Buried archaeological and marine historic environment baselines are required. Feedback on the preliminary heritage viewpoints considered was sought. Further discussions following the finalisation of the PEIR will be required.	The PEIR includes a brief discussion of the archaeological baselines as well as some indications on possible level of impact and mitigation measures. A Zone of Theoretical Visibility (ZTV) will be included within the ES chapter assessment. The PEIR does not include a discussion of these views.

Implications of Legislation, Policy and Guidance

19.15 The area of the OMSSD project is within Castle Point Borough Council’s area. In October 2020, CPBC submitted its Local Plan for examination. The policies included within the previous iteration of the existing local plan remain in place until the new local plan is adopted by CPBC. Heritage specific policies are discussed within Chapter 3 of the adopted local plan with the relevant policies applicable to the OMSSD project being:

- EC16 Protection of Landscape
- EC34 Setting of Listed Buildings
- EC37 Local List of Buildings
- EC38 Archaeological Sites and Monuments

Chapter 10 and Strategic Policy HE1 of the New Local Plan is aimed at conserving and enhancing the historic environment.

19.16 This assessment has been undertaken within the key statute, policy and guidance context presented within Table 19.4. The applicable provisions contained within these statute, policy and guidance documents are referred to, and discussed, as relevant, throughout the text.

Table 19.4: Key Statute, Policy and Guidance

Statute, policy and guidance document	Description
National Planning Statement for Ports (2012) ⁵⁹²	The Historic Environment is discussed in section 5.12 of Chapter 5 (pages 62-69). Section 5.12.6 states that “as part of the ES, the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance”. NPSfP also requires that any harmful impact on the significance of a designated heritage asset,

⁵⁹² Department for Transport (DfT) (2012) National Policy Statement for Ports.

Statute, policy and guidance document	Description
	including its setting, should be weighed against the wider benefits of the project.
Overarching National Policy Statement for Energy (EN-1) (2011) ⁵⁹³	Policies regarding the Historic Environment are dealt with under Section 5.8 of this Overarching NPS for Energy and are largely a repeat of Section 5.12 of the NPSfP.
Ancient Monuments and Archaeological Areas Act (1979) ⁵⁹⁴	Act of Parliament providing for the maintenance of a schedule of archaeological remains of the highest significance, affording them statutory protection.
Planning (Listed Buildings and Conservation Areas) Act (1990)	Act of Parliament placing a duty upon the Local Planning Authority (or, as the case may be, the Secretary of State) to afford due consideration to the preservation of Listed Buildings and their settings (under Section 66(1)), and Conservation Areas (under Section 72(2)), in determining planning applications.
National Heritage Act 1983 (amended 2002) ⁵⁹⁵	One of four Acts of Parliament providing for the protection and management of the historic environment, including the establishment of the Historic Monuments & Buildings Commission, now Historic England.
Conservation Principles (Historic England 2008)	Guidance for assessing heritage significance, with reference to contributing heritage values, in particular: evidential (archaeological), historical (illustrative and associative), aesthetic, and communal.
National Planning Policy Framework (2019)	Provides the English government's national planning policies and describes how these are expected to be applied within the planning system. Heritage is the subject of Chapter 16.
Good Practice Advice in Planning: Note 2 (GPA2): Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015)	Provides useful information on assessing the significance of heritage assets, using appropriate expertise, historic environment records, recording and furthering understanding, neglect and unauthorised works, marketing and design and distinctiveness.
Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets, Second Edition (Historic England, 2017)	Provides guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes.
Statements of Significance: Analysing Significance in Heritage Assets – Historic England Advice Note 12 (2019) ⁵⁹⁶	Provides guidance and information on the analysis and assessment of Heritage Significance in line with the NPPF (2019).

⁵⁹³ Department for Energy and Climate Change (2011) Overarching National Policy Statement for Energy (EN-1)

⁵⁹⁴ Ancient Monuments and Archaeological Areas Act 1979 of UK Parliament

⁵⁹⁵ National Heritage Act 1983 Act of UK Parliament

⁵⁹⁶ Historic England (2019) Statements of Significance: *Analysing Significance in Heritage Assets* – Advice Note 12

Statute, policy and guidance document	Description
Castle Point Borough Council (1998) ⁵⁹⁷	Comprises the local development plan (local plan), as required to be compiled, published, and maintained by the local authority, consistent with the requirements of the NPPF (2019). Intended to be the primary planning policy document against which planning proposals within that local authority jurisdiction are assessed. Where the development plan is found to be inadequate, primacy reverts to the NPPF (2019).

Preliminary Description of the Existing Environment

Archaeological and historical background

Landscape context

- 19.17 The Oikos Facility comprises a liquid bulk storage facility which is located on the south-western coastal area of Canvey Island. The facility measures 29.07ha and includes jetties with pipelines for effective delivery of liquid fuel products to land via ships. At present the focal area of the OMSSD project site is an area of unused land previously occupied by tank storage and associated infrastructure with some storage tanks and infrastructure remaining.
- 19.18 The OMSSD project site lays partly within an area of relatively flat reclaimed land at an average height of 2-3m AOD. Historically, the area was mostly used for salt production due to its seasonal tendency for flooding. Canvey was predominately rural until the beginning of the 20th century when the increasing industrial development of the area precipitated the transformation of most of the landscape from open fields into residential and industrial estates.

Geology

- 19.19 The OMSSD project site’s geology mostly comprises bedrock of the London Clay Formation, sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period which comprises of clay, silt and sand (BGS accessed 2019⁵⁹⁸). This is overlain by superficial deposits of Tidal Flats, a sedimentary type of deposit formed 11.8 thousand years ago (BGS accessed 2019) and of Beach and Tidal Flats which includes a large proportion of sands in its content. These deposits were formed 2.588 million years ago (BGS accessed 2019).

⁵⁹⁷ Castle Point Borough Council (1998) Adopted Local Plan

⁵⁹⁸ British Geological Survey 2019 *Geology of Britain Viewer, 1:50,000 geological mapping, bedrock and superficial* - <http://mapapps.bgs.ac.uk/geologyofbritain/3d/index.html>

Borehole information

- 19.20 Several boreholes have been excavated within the OMSSD project area and within its environs (BGS website accessed 2019, Figure 19.2). Most of these were undertaken during the 1970s and the information contained within the logs is not, in some cases, complete. For the ones which provided accurate and complete data the depositional sequence mostly comprises very thick layers of alluvium and sands (always exceeding the 20m thickness each).
- 19.21 A programme of geotechnical works was also undertaken in 2015 which comprised several boreholes within the footprint of Jetty 2. The depositional sequence recorded mostly comprises very thick interbedded layers of alluvium and sands.

Previous archaeological works

- 19.22 A considerable amount of archaeological fieldwork has previously been carried out within the study area. Previous investigations, which included assessments as well as a range of intrusive works, such as watching briefs, evaluations, and excavations, are illustrated on Figure 19.3, and summarised in Table 19.5 below. Those of relevance to this assessment are discussed chronologically throughout this preliminary assessment.

Table 19.5: Summary of previous works

Reference on Figure 19.3	Description
Ev1	Paleoenvironmental assessment of Cores
Ev2	Calor Gas Terminal; Sidescan Sonar, Sub-bottom profile and magnetic data
Ev3	Calor Gas Terminal Survey
Ev4	Red Hill XII - Excavations 1963 and 1968.
Ev5	Excavation by Macleod
Ev6	Thorney Bay Road, Canvey - Negative Watching Brief and Evaluation Thorney Bay Road Canvey Island Evaluation.
Ev7	Thorney Bay Road Watching Brief.
Ev8	Evaluation trenching and test-pitting following from geophysical survey
Ev9	Evaluation of pipeline route.
Ev10	Red Hill XI: Oysterfleet Farmhouse
Ev11	Occidental Oil Refinery Watching Brief.
Ev12	Occidental Oil Refinery Watching Brief

Prehistoric and Romano-British

- 19.23 There are no remains relating to the prehistoric or Romano-British periods recorded within the OMSSD project site.

- 19.24 The study area does not record extensive settlement or associated activity during the prehistoric period except for a small Iron Age red hill (Figure 19.3, **Ev4**; Figure 19.4, **1**). No further remains of the prehistoric period are recorded within the study area.
- 19.25 There is widespread evidence for the occupation of Canvey Island during the Romano-British period mostly relating to salterns and settlement.
- 19.26 As with the evidence for the prehistoric period, although not abundant within the study area, the wider environs records multiple sites that record occupation that spans from the prehistoric to the Romano-British periods and even beyond. The exploitation of this landscape for salt extraction most likely started during the Iron Age with the Romano-British period introducing the land reclamation processes. Although not near larger settlement sites, or towns, the area seems to have been well settled for which the multiple red hill and burial sites are a testament. The OMSSD project site seems to have been within this reclaimed landscape although no conclusive evidence of its use has been recorded thus far.

Early medieval and medieval

- 19.27 There are no remains relating to the early medieval period within the OMSSD project site. Settlement and agricultural development of the region by the Saxons from the 5th century onwards saw the introduction of sheep farming, which then became one of the most important industries within the island throughout its history (Yearley 2000)⁵⁹⁹. There is no evidence for Saxon occupation recorded within the study area although conclusive evidence of it has been found in its surrounds.
- 19.28 There are no remains relating to the medieval period within the OMSSD project site and within the study area the evidence for the medieval period is not abundant. It mostly relates to rural settlement sites and the agricultural/industrial exploitation of the landscape.
- 19.29 As with the earlier periods there is conclusive evidence for the exploitation of the wider landscape during the early medieval and medieval periods. Although no actual remains have been recorded within the OMSSD project site, it can be concluded that it was a part of said landscape, and hence there is potential for archaeological remains from the early medieval to the medieval periods to survive either within or extending to the OMSSD project site.

Post-medieval

- 19.30 In the post-medieval period, the development of the Island proceeded with a project to reclaim further land from the Thames. This project was initiated by Sir Henry Appleton and other landowners in 1622 with the construction of the old sea wall, or Dutch Sea Wall, which runs adjacent to the south boundary of the Oikos Facility and OMSSD project site (Figure 19.4, **13**). A broad drainage ditch was dug inland whilst smaller inlets were filled in. Excess water was collected in the broad ditch and then discharged on the river through seven sluices known as the Commissioners Dykes (Yearsley 2000), which are still recognisable on

⁵⁹⁹ Yearley I (2000) Islands of Essex – Canvey Island, Ian Henry Publications

some of the early historic maps (see Figure 19.6). These dykes were not located within the site, but several drainage ditches, possibly some relict creeks formed during the land reclamation episodes are within the OMSSD project site boundaries. During the Victorian period Canvey was promoted as a seaside resort with the construction of several amenities for the crowd's enjoyment. Amongst these there was the Lobster Smack Inn, a public house and inn, the old sea wall, the Coast Guard watch point, the sea front and later the Kynoch Hotel (see below for the documented site development), the latter being the only feature located within the Oikos Facility and OMSSD project site. Refer to Photos 12, 13 and 14.

- 19.31 During this period the OMSSD project site would have been mostly used for agriculture after the efforts from land reclamation implemented with the construction of the sea wall. Archaeological evidence of these efforts and of the agricultural practices may be expected to survive buried within the OMSSD project site.

Modern

- 19.32 During the Second World War Canvey Island was part of the General Headquarters (GHQ) defence line. A related anti-tank ditch was located c.580m to the northwest of the OMSSD project site (Figure 19.5, **16**). Most of the GHQ defence line comprised pill boxes some still in situ, some recorded as destroyed. Other features relating to the modern period that can be found within the study area comprise the site of two shipwrecks (Figure 19.5, **15**), the site of the Gas Works (Figure 19.5, **25**), a number of small earthwork features (Figure 19.5, **27**) and the site of the Occidental Oil Refinery, (Figure 19.5, **32**).

Unknown

- 19.33 Several features have been identified and recorded but conclusive evidence on nature and dating is lacking either from lack of investigation or poor/incomplete records (labelled as 'Unknown' on Figure 19.5).

Recorded development of the Site

- 19.34 The first available map which records the OMSSD project site is the 1777 map of the County of Essex (Figure 19.6) which records the OMSSD project site's area as undeveloped. Although no graphic representation of the land use is made it is possible to extrapolate that it was under agricultural uses at the time. To note also, the map represents the buildings belonging to the Scar House farm, to the east of the OMSSD project site, and of the Sluice Farm to the west, which is annotated as *The Worlds End*. The old sea wall is located just to the south of the OMSSD project boundary and its earthwork is represented with diagonal hachures.
- 19.35 The map of 1793 (Figure 19.6) offers a more detailed representation of the OMSSD project site and its environs. It shows that the OMSSD project site was divided between several, somewhat irregular, plots of land. Although no apportionment was available at the Essex Record Office, the map has some information on the land use, including the annotation of *Pasture* within certain plots, which is the case for most of the OMSSD project site. The map also shows several watercourses running through the OMSSD project site, most likely

drainage ditches, that effectively created most of its field boundaries, and the crossing points from one plot to the other. The OMSSD project site was at this time divided between three different parishes, Vange, Benfleet and Pitsea, and hence it is featured in the three different tithes maps. Each map and summary of the related apportionment can be seen below.

- 19.36 There is only a small portion of the OMSSD project site recorded on the Vange Parish Tithe map of 1839 (Figure 19.6). This small plot, on the easternmost corner of the site, was under agricultural use, most likely seasonal due to the OMSSD project site's location by the riverside, and hence liable to seasonal or tidal flooding. No buildings are recorded within the Site.

Table 19.6: Summary of Vange Parish Apportionment

Plot no	Ownership	Tenant	Name and land use
197	William Hilton	Himself	First near Marsh – Arable Waste - Water

- 19.37 The two larger plots to the west of the OMSSD project site were within Benfleet Parish and are represented in the related the map of 1840 (Figure 19.6). These plots were no2 and no7 and were both under the same ownership and although both in agricultural uses one was recorded as *Arable* land (no 2) and the other as *Grass* or pasture. As with the plot recorded in the previous tithe map (Figure 19.6) it is quite probable that these plots were only seasonally used. No buildings are recorded. To note, the area of the OMSSD project site was under different ownership and tenancy from the Sluice Farm (Plots no 3 and 3a).

Table 19.7: Summary of Banfleet Parish Apportionment

Plot no	Ownership	Tenant	Name and land use
2	Johnathan Wood	Himself	n/a - Arable
3	Susannah Richmond	William Finch	Sluice House and Garden
3a	Susannah Richmond	William Finch	Wall
7	Johnathan Wood	Himself	n/a - Grass

- 19.38 The central plots of the OMSSD project site were all within Pitsea Parish and are represented on the related tithe map of 1847 (Figure 19.6). Most of the plots were under the ownership of Jonathan Wood, and under the same land use, either as pasture or arable, except for plots no247 and no248 which relate to the sea walls. The tithe map does not record any built form within the OMSSD project site.

Table 19.8: Summary of Pitsea Parish Apportionment

Plot no	Ownership	Tenant	Name and land use
241	Johnathan Wood	Himself	n/a - Arable
242	Johnathan Wood	Himself	½ the Fleet
243	Johnathan Wood	Himself	n/a - Arable
244	Johnathan Wood	Himself	n/a - Pasture

Plot no	Ownership	Tenant	Name and land use
245	Johnathan Wood	Himself	<i>n/a - Arable</i>
246	Johnathan Wood	Himself	<i>n/a - Pasture</i>
247	Commissioners of Canvey Island	James Palmer	<i>Wall</i>
248	Commissioners of Canvey Island	James Plamer	<i>To Old Wall</i>

- 19.39 The 1st Ordnance Survey map of 1872-76 (Figure 19.6) does not show any significant differences within the OMSSD project site and records no built form. On the other hand, the 1905 map (Figure 19.7) although not giving accurate detail on field shapes and roads, it roughly represents the location of built form, the Hotel Kynoch, within the OMSSD project site. It also shows the location of the Coast Guard Station and of the cottages associated with it just to the west of the OMSSD project site boundary. An advertisement postcard of the Hotel Kynoch (Appendix 19.1) shows that the building was in style with a balcony connecting the 1st floor of the hotel directly to sea wall. Another building, seemingly timber framed, is also represented to the west of the hotel, most likely an ancillary building or some type of beach hut.
- 19.40 The Ordnance Survey of 1910 (Figure 19.7) records the Coast Guard Station mentioned above, but it does not record the Hotel within the OMSSD project site; it records the OMSSD project site as fields with very little alteration to their boundaries. The lack of representation of the Hotel on this map may be due to the date during which the survey for it took place, which would have been in the years prior (c.1905- 1908) and hence before it was built. The Hotel was built by the Kynoch Dynamite Company and functioned as a hotel until the c.1930s when it was sold to the Gas Company and used as an office (CanveyIsland.org). The map of 1939 (Figure 19.7) shows, not only the site of the Hotel Kynoch, but also several other buildings connected with the gas works as well as a wharf and the first jetty with crane. Several roads are also depicted connecting the buildings and wharf to the main roads.
- 19.41 The 1940-45 Map of War annotated by the MoD (Figure 19.7) is an annotated version of the Ordnance Map of the same year and it shows three different areas of storage tanks built within the OMSSD project site. It also gives a few insights to the effects of the Second World War within the OMSSD project site and surrounding area by showing the location of bomb droppings, crash sites (annotated with a flag symbol, in this case showing a Nazi crash site to the south of the OMSSD project site) and areas of severe damage by bombing or similar (annotated with hashes to the south-east of the OMSSD project site and extending to its south-eastern corner).
- 19.42 The 1957 Town Development Map (Figure 19.7) shows no significant differences within the OMSSD project site. The most substantial information provided by this map is the allocation of sites to the north and east of the OMSSD project site for industrial uses. The 1967 Ordnance Survey (Figure 19.7) shows that substantial development has taken place within the OMSSD project site with the construction of several other storage tanks, buildings and depots but also two other jetties and cranes. The OMSSD project site remains unchanged on the following maps of 1976 and 1980 (Figure 19.8). The 1999 Ordnance Survey (Figure

19.8) records further development within areas previously undeveloped to the north and east of the OMSSD project site, with the construction of further storage tanks.

19.43 At present the OMSSD project site remains mostly unchanged, with most of its area being occupied by buildings, areas of hardstanding, fuel storage tanks and jetties (see Photos 1-7 in Appendix 19.1). It is considered that the buildings, features and structures located within the OMSSD project site are purpose built and not remarkable in terms of architectural style, fabric and character being present in similar other sites across the county. Thus, they are not considered to be heritage assets.

The Setting of Heritage Assets

19.44 This section considers potential non-physical effects upon the significance of susceptible heritage assets within the OMSSD project site environs. Non-physical effects are those that derive from changes to the setting of heritage assets as a result of new development. All heritage assets included within the preliminary settings assessment are shown on Figure 19.9. Those assets identified as potentially susceptible to non-physical impact, and thus subject to more detailed assessment, are discussed in greater detail within the remainder of this section.

Step 1: Identification of heritage assets potentially affected

19.45 Step 1 of the Second Edition of Historic England’s 2017 ‘Good Practice Advice in Planning: Note 3’ (GPA3) is to ‘identify which heritage assets and their settings are affected’. GPA3 notes that Step 1 should identify the heritage assets which are likely to be affected as a result of any change to their experience as a result of the development proposal (GPA3, page 9).

19.46 Several heritage assets were identified as part of Step 1, as being potentially susceptible to impact as a result of changes to their setting. These included Scheduled Monuments and Grade II Listed Buildings which have been summarised on Table 19.9 below. These assets have been identified using a combination of GIS analysis and field examination, which has considered, amongst other factors, the surrounding topographic and environmental conditions, built form, vegetation cover, and lines of sight, within the context of the assets’ heritage significance.

Table 19.9: Summary of designated assets susceptible to impact

Reference on Fig. 19.9	Designated heritage asset
SM5	Halstow Marshes Decoy Pond
LB1	Grade II Listed 1 and 1A, 2 to 8 Haven Road
LB2	Grade II Listed The Lobster Smack Inn

19.47 The site visit, and study area walkover, undertaken on the 17 and 18 of July 2019, identified that there would be no nonphysical impact upon the significance of any other heritage assets as a result of changes to the use and/or appearance of the OMSSD project site. These unaffected assets have been summarised in Table 19.10 below and mostly comprise 18th to

19th century townhouses consistent with the local vernacular as well as scheduled areas that derive their significance from their preserved archaeological remains and upstanding built form. Their setting comprises the expansive industrial and residential suburbs of Canvey Island, a townscape in which they are best perceptible and intelligible as heritage assets. This setting would not be altered, and would be preserved, as would the assets' key contributing values and views. Views of the surrounding landscape (including the OMSSD project site) from these assets are blocked by industrial plants and other modern built form, and there are no other discernible (non-visual) historical or landscape associations between any of these assets and the OMSSD project site. As such, the proposals will not result in any non-physical harm to the significance of these assets, which have been scoped out and have not been assessed in any further detail.

- 19.48 Consultation undertaken with Historic England required that heritage-specific viewpoints should be included within the OMSSD ES and the impact on heritage asset settings should also be assessed regarding the impacts of the proposed development in levels of noise, light, traffic, and landscape assessments. These have been addressed in the relevant chapters.

Table 19.10: Summary of designated assets scoped out of the settings assessment

Reference on Figure 19.9	Designated heritage asset
SM1	Heavy anti-aircraft gunsite 170m southwest of the junction of Cedar Road and West Crescent
SM2	Roman saltern 260m southeast of Great Russell Head Farm
SM3	Heavy anti-aircraft gunsite 380m east of Northwick Farm
SM4	World War II bombing decoy on Fobbing Marshes
SM6	Scheduled Monument and Grade I Listed Hadleigh Castle: an enclosure castle and an associated dam and mill
SM7	Heavy Anti-aircraft gunsite on Sandpit Hill
SM8	Cliff Explosives Works
LB3	Grade II Listed Dutch Cottage
LB4	Grade II Listed Dutch Cottage
LB5	Grade II Listed Labworth Café
LB6	Grade Listed II* Shipwrights
LB7	Grade II Listed Benfleet Water Tower
LB8	Grade II Listed Old Vicarage
LB9	Grade II Listed Nos 5 and 7, The Close
LB10	Grade II Listed Benfleet Conservative Club
LB11	Grade II Listed Street Lamp outside 7 The Close
LB12	Grade II Listed Street Lamp to west of No 23 High Street
LB13	Grade II Listed The Half Crown Inn
LB14	Grade II Listed The Hoy and Helmet Inn

Reference on Figure 19.9	Designated heritage asset
LB15	Grade II South Benfleet War Memorial
LB16	Grade II* The Anchor Inn and building attached to right
LB17	Grade II Listed Group of four headstones between 18 and 22m south-east of south porch of Church of St Mary the Virgin
LB18	Grade II Listed Table tomb approximately 14m south of the south porch of St Mary the Virgin
LB19	Grade I Listed Church of St Mary the Virgin

Steps 2 to 3: Assessment of setting and potential effects of the development

- 19.49 This section presents the results of Steps 2 to 3 of the settings assessment, which have been undertaken regarding those potentially susceptible heritage assets identified in Step 1. Step 2 considers the contribution that setting makes to the significance of potentially susceptible heritage assets. Step 3 then considers how, if at all, and to what extent any anticipated changes to the setting of those assets, as a result of development within the OMSSD project site, might affect their significance.

Halstow Marshes Decoy Pond (Figure 19.9, SM5)

- 19.50 Halstow Marshes Decoy Pond Scheduled Monument, located c.4.30km to the south of the OMSSD project site, henceforth the Decoy, (Figure 19.9, and Photo 8) is an extant two-phase four-pipe duck decoy, dating from the late 17th century, with later phases of modification and use.
- 19.51 The significance of the Decoy primarily derives from its historic (illustrative), evidential and possible communal value embodied by its physical form (earthworks) and by the presence of a variety of wild birds which merited the area to be included within a nature reserve.
- 19.52 The OMSSD project site is not a location whence the special appearance and historic interest of the Decoy can typically or is best experienced due to the distance. As discussed above, to better experience the asset one should be in close proximity, or at least within one of the fields or marshy areas in the immediate surrounds. The OMSSD project site does not hinder the appreciation of the Decoy, due to the distance between it and the asset and no views of the asset will be blocked by the development. It is therefore considered that the OMSSD project site is not a part of the setting of the Decoy which contributes towards its significance. As such it is considered that the development would result in **no harm** to the significance of Halstow Marshes Decoy Pond.

Grade II listed 1 and 1A, and 2 to 8 Haven Road (Figure 19.9, LB1)

- 19.53 Grade II Listed 1 and 1A, 2 to 8 Haven Road, henceforth the Cottages, are a row of late 19th century former Coast Guard cottages (Figure 19.9 and Photos 9 and 10).
- 19.54 The significance of the Cottages primarily derives from its historic (illustrative), aesthetic and communal values embodied by its physical form (architectural style and fabric). It is

considered that the Cottages have a degree of communal value by being one of the few remaining examples of industrial workers cottages from the turn to the 20th century with links to the industry, tourism and coast guard within the area.

- 19.55 The OMSSD project site is not a location whence the special architectural and historic interest of the Cottages can typically or is best experienced. To better experience the asset, one should be in close proximity and although longer views of the asset can be obtained from the sea wall, the massing and height of the built form within the OMSSD project site does not hinder the appreciation of the Cottages, allowing views and glimpses of its built form. It is then considered that the OMSSD project site does not form part of the setting of the Cottages which contributes towards its significance. As such it is considered that the development would result in **no harm** to the significance of Grade II Listed 1 and 1A, and 2 to 8 Haven Road (Figure 19.9, LB1).

Grade II Listed The Lobster Smack Inn (Figure 19.9, LB2)

- 19.56 Grade II Listed The Lobster Smack Inn (Figure 19.9, LB2; Photos 11 and 15) is a public house most likely built in the 17th century but now mainly 18th through to the 20th century with rear additions and alterations.
- 19.57 The significance of the Inn primarily derives from its historic (illustrative) and aesthetic values embodied by its physical form (architectural style, details and fabric). It is also considered that the asset holds some communal value as a historical landmark for the population of Canvey Island, being mentioned in several works of reference as a popular and known local restaurant and meeting place.
- 19.58 No direct or indirect historical associations between the OMSSD project site and the Lobster Smack Inn (Figure 19.10, LB2) have been discerned during this assessment. There is no record of shared ownership and once the public house was built there was also a change in use. The OMSSD project site is not a location whence the special architectural and historic interest of The Lobster Smack Inn can typically or is best experienced; this would be better achieved from the public car park that serves the Lobster Smack or from the old sea wall (Photos 11 and 15). The OMSSD project site does not hinder the appreciation of the Lobster Smack Inn, as mentioned; no views of the Lobster Smack Inn will be blocked by the proposals due to the distance and already intervening built form. It is therefore considered that the OMSSD project site is a part of the wider setting of the Lobster Smack Inn which makes a neutral contribution towards its significance. As such it is considered that the development would result in no harm to the significance of the Lobster Smack Inn.

Environmental Change without the OMSSD Project

- 19.59 In the absence of the OMSSD project, there would be no changes to any heritage assets if the OMSSD project did not go ahead.
- 19.60 Whilst the OMSSD project area may be subjected to impacts from other future developments at the Oikos Facility, it is not possible to ascertain, at this stage, the levels of such impacts

on known and unknown heritage assets for any site preparation, construction or operational phase of these works.

Preliminary Consideration of the Likely Impacts and Effects

Archaeological significance and potential effects

Previous impacts

- 19.61 The Oikos Facility has been continuously developed since the beginning of the 20th century (see chapter 2), with the built form including buildings, storage tanks and pipelines for the storage and distribution of liquid bulk products. Although there is no official record of the depths to which most of these features were excavated to it is reasonable to expect that they have impacted the on-site stratigraphy, even if just the superficial levels.

The significance of known and potential archaeological remains within the OMSSD project site

- 19.62 This assessment has identified that no designated archaeological remains are located within the OMSSD project site; no designated archaeological remains will therefore be adversely physically affected by development within the OMSSD project site.
- 19.63 Considering the known resource recorded in the surrounding area, potential archaeological remains within the OMSSD project site are described in the following paragraphs.
- 19.64 Prehistoric remains which would have historic (illustrative) and evidential values as heritage assets, providing information on the early development of settlement patterns across the area; these would most likely relate to settlement and industrial activity (salt extraction) including surfaces, buildings and field systems.
- 19.65 Romano-British remains which would have historic (illustrative) and evidential values as heritage assets, providing information on the early development of settlement patterns across the area as well as the development of the salt production industry; these would most likely relate to rural settlement activity including surfaces, buildings, field systems and the possibility of inhumations and industrial activity represented by possible red hills and salterns.
- 19.66 Remains associated with the settlement and the agricultural use of the area during the medieval and post-medieval periods that would have historic (illustrative) and evidential values as heritage assets by providing information on the social and economic development of Canvey Island such as medieval to post-medieval land reclamation features (sea walls, dykes, sluices, drainage channels), remnant medieval and post-medieval ridge and furrow, post-medieval fields boundaries and industrial activities (salt extraction).

Potential development effects

- 19.67 Any truncation (physical development effects) upon those less significant non-designated archaeological remains identified within the OMSSD project site would primarily result from groundworks associated with construction. Such works might include:
- pre-construction impacts associated with demolition and site remediation works;
 - ground levelling;
 - construction and piling of bund walls, new storage tanks;
 - dredge for Jetty 2;
 - construction ground works, including excavation of building foundations, service trenches and stripping for roads/car parks; and
 - excavation of new site drainage works.
- 19.68 As mentioned there has been significant industrial development within the OMSSD project site over 80 years and the areas where built form has been recorded (either extant or since demolished) may have somewhat truncated the top levels of deposits. Nonetheless, the OMSSD project site is located within an area of depositional environments with known potential for the preservation of archaeological remains at deeper levels, that through tidal and seasonal flooding may have become buried under several metres of alluvium. Thus, the hypothesis of survival of archaeological remains at deeper levels cannot be discarded. At this stage it is not considered that the proposed works will reach the deeper layers of these environments and impact is only expected to affect the first few metres of in situ stratigraphy.
- 19.69 After analysing the archaeological resource for the area this assessment has identified that the OMSSD project site has potential for prehistoric, medieval and post-medieval deposits to survive within the OMSSD project site. Such remains would be of evidential and historic (illustrative) value, but it is highly unlikely that they would be of such significance that they would preclude development of the OMSSD project site. The heritage impacts of their truncation and / or removal will be considered in the OMSSD ES.
- 19.70 It is also considered that the OMSSD project site is a part of the wider setting of the Lobster Smack Inn which makes a neutral contribution towards its significance. As such it is considered that the development would result in no harm to the significance of the Lobster Smack Inn.

Table 19.11: Summary of preliminary effects as a result of the OMSSD project

Reference in Figure 19.9	Designated Heritage Asset	Summary of effects	Level of effect
SM5	Halstow Marshes Decoy Pond	No changes	No harm
LB1	1 and 1A, 2 to 8 Haven Road	Small changes to distant views	No harm
LB2	Lobster Smack Inn	Small changes to distant views	No harm

- 19.71 Based on currently available information it is considered that proposals would not lead to harm to any Scheduled Monuments or Listed Buildings within the study area. Therefore, the

proposals would be consistent with the requirements of the Planning (Listed Buildings and Conservation Areas) Act, 1990, which states that “special regard” should be given to the “desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses”. In accordance with the provisions of the Act the setting of the Listed Buildings will be “preserved” i.e. will not be “harmed”.

- 19.72 No potential likely significant effects on designated heritage assets are expected to arise from the development.

Human health

- 19.73 There are no predicted effects on human health in respect of heritage assets as arising from the proposed development.

Climate change

- 19.74 The proposed development has no predicted effects on climate change.

Interrelated effects

- 19.75 There are no predicted interrelated effects as arising from the proposed development.

Mitigation Measures

- 19.76 As part of the OMSSD project a stepped approach will be implemented to appropriately inform the necessary mitigation measures. A proportionate approach will be taken and possible measures will be discussed and agreed with Historic England and Essex County Council.
- 19.77 If required, the measures to reduce potential likely significant effects may comprise further marine works, marine geophysical surveys and archaeological deposit modelling. These will then inform an archaeological evaluation strategy which will be outlined and agreed in collaboration with the Essex County Council and Historic England. The next step will comprise a Heritage Impact Assessment as part of the OMSSD ES Chapter, which will be produced discussing the results of any of the aforementioned works and the impact of the OMSSD project design on heritage assets as well as a revised settings assessment.
- 19.78 The Historic Environment chapter of the OMSSD ES will summarise the collated information, and highlight any potential impacts or any likely significant effects.

Limitations

- 19.79 This preliminary assessment is principally a desk-based study and has utilised secondary information derived from a variety of sources, only some of which have been directly examined for the purpose of this assessment. The assumption is made that this data, as well as that derived from secondary sources, is reasonably accurate. The records held by HER

and HEA are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within these repositories is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

- 19.80 A selection of archival material pertaining to the Oikos Facility, the OMSSD project site and study area was consulted in person at the Essex Archives. There may be other relevant material held by the National Archives, other local repositories, and in private collections, which were not consulted as part of this assessment.
- 19.81 The site visit and setting assessment was undertaken in dry and cloudy weather conditions, although visibility was not diminished. Access was afforded within the OMSSD project site, although such observations are limited since archaeological remains can survive below-ground with no visible surface indications of their presence. It is possible that unknown archaeological remains may be present within the OMSSD project site, and the presence of modern infrastructure may possibly have inhibited identification of any possible upstanding remains. There was also sufficient access to heritage assets to assess likely impacts upon their significance due to changes to their setting.

Preliminary Conclusions on Residual Effects

- 19.82 Considering the archaeological resource for the area this assessment has identified that the OMSSD project site has potential for prehistoric, Romano-British, medieval and post-medieval deposits. Whilst the OMSSD project site has been developed significantly for fuel storage purposes, the OMSSD project site is located within an area of depositional environments with known potential for the preservation of archaeological remains at deeper levels that through tidal and seasonal flooding may have become buried under several meters of alluvium. Thus, the potential for survival of archaeological remains at deeper levels within the OMSSD project site cannot be discarded. Further work will be undertaken as necessary to establish the details on any possible impacts as well as the required and proportionate mitigation measures as part of the OMSSD ES.
- 19.83 A preliminary settings assessment has concluded that the OMSSD project site is an element of the wider setting of several designated assets. A complete settings assessment to take into account close distance and long distances views to analyse potential effects on their significance as arising from the OMSSD project will be undertaken as part of the OMSSD ES.