



Preliminary Ecological Appraisal- Footpath Ramp ZF5 (Faversham Reach & Waterside Close Project)

CO04300288/ ECO1

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Document Control Sheet

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1. Introduction

Background

Amey was commissioned by Kent County Council (KCC) to undertake a preliminary ecological appraisal at Faversham Reach & Waterside Close, Faversham (Footpath Ramp ZF5).

Public Footpath ZF5 is currently obstructed at Faversham Reach (refer to Figure 1- Appendix A). To resolve this obstruction and gain access along the creek-side alignment, a ramp would need to be constructed due to the difference in ground levels of approximately 2m at point B (refer to Figures 1 & 2 - Appendix A). A further ramp would need to be installed at point L (refer to Figures 1 & 2) to link into an existing public footpath (Photograph 5 - Appendix B).

At point H, a cantilever-type addition would be required to allow the passage of walkers across the slipway (ref to Figures 1 & 2 and Photograph 4).

At point F there are two options:

1. The proposed route follows existing hard-standing alongside the Creek linking up to point H.
2. The alternative route follows existing hard-standing through Faversham Reach residential area (Photograph 3 - Appendix B).

Study Area and Location

The proposed scheme is located adjacent to Faversham Creek between Waterside Close (at Ordnance Survey grid reference TR01985 62032) and Faversham Reach (at Ordnance Survey grid reference TR01751 61919)(refer to Figure 1 Site Location Plan and Environmental Designations – Appendix 1). The survey area includes the area directly adjacent to the proposed footpath and the wider area to include access point to the scheme.

The habitats along the length of the scheme and its immediate surrounding largely comprise hard-standing, rough grassland deciduous and ornamental trees, hedgerow, wet area consisting of club rush (*Scirpus maritimus*), common reed (*Phragmites australis*), tall vegetation, patches of scrub, and a runnel (inlet of water from creek) (Photograph 1-8).

At present there is one design option with an alternative route at F (refer to Figure 1 Appendix A and Photograph 3 – Appendix B).

A number of designated sites, including European Sites, are present within 2km of the proposed scheme and are also hydrologically linked via the Swale Estuary. These sites include The Swale extensions Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Local Wildlife Site (LWS); The Swale Ramsar Site; recommended Marine Conservation Zone (rMCZ) 10 [The Swale Estuary]; and notable habitat under the Higher Level Stewardship Scheme (refer to Figure 1 & Appendix E).

Objectives

This preliminary ecological (scoping) appraisal is intended to record relevant habitats, including any that are formally designated for nature conservation and to highlight the potential for legally-protected or otherwise notable species.

This appraisal also makes recommendations for further, detailed surveys that might be required to confirm the presence of such species. This is in order to ensure that further ecological survey and advice is appropriately targeted and reflects the demands of wildlife legislation and Government nature conservation policy (refer to Appendix C for details).

Where this preliminary survey indicates that there may be impacts to such ecologically-sensitive features, a brief outline indication of likely mitigation requirements is also provided, where appropriate. However, detailed mitigation can only be confirmed once the recommended further surveys are completed.

This preliminary ecological (scoping) appraisal discusses the installation within the subject site of ramp walkways and alternative route at point F (Photograph 3- Appendix B).

Limitations

This report highlights the habitats and the potential for notable species evident on the day of the survey visit, combined with recent (unconfirmed) records obtained from third parties such as biological records centres. It does not record any ecological features that may only appear at other times of the year and therefore were not evident at the time of the visit. This includes flowering plants that are not readily identifiable prior to their flowering season.

This report deals with matters of legal significance but does not constitute professional legal advice. The Client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this document and summarised in Appendix C.

2. Methodology

Desk Study

Records of protected or otherwise notable habitats and species were obtained from the Kent and Medway Biological Records Centre (KMBRC) in July 2015. Habitats were searched for within a 2km radius of the proposed site and species were searched for within a 1km radius. These records were supplemented with internet-based resources and other local consultation where appropriate. The combined records were analysed to determine their relevance to the site and the proposed works, taking into consideration the dates and locations of each record and the sensitivity of the recorded feature to likely impacts. It should be noted that a lack of species records within an area may not reflect an actual absence of that species, but could simply be a function of limited recording/survey effort in that area.

Field Survey

The site was visited by a qualified and experienced Ecologist (Beverley Harris MCIEEM) accompanied by an assistant (Martyn King) on 17th July 2015. The weather on the day of the survey was dry and sunny with occasional cloud and a moderate wind speed. Habitats within and immediately adjacent to the proposed scheme footprint were noted and the potential for protected or otherwise notable species was assessed. Where any incidental sightings or indirect evidence of species presence was observed, this was recorded, but no detailed survey for any species was undertaken.



3. Results

<p>SITE: Faversham Reach & Waterside Close (Footpath Ramp ZF5) site, accessed through Upper Brents, Faversham Kent ME13 7DL</p> <p>O.S. Grid Ref: TR 01985 62032 to TR 01751 61919</p> <p>Figure ref: Figure 1</p>		<p>Project No. : CO04300288</p> <p>PROJECT NAME : Faversham Reach & Waterside Close (Footpath Ramp ZF5)</p> <p>SURVEY DATES: 17th July 2015</p> <p>SURVEYOR: Beverley Harris</p>	
<p>Ecological Attributes and Status</p> <p><i>(see Appendix A for legislation summary)</i></p>	<p>Description:</p> <p>Presence (actual or potential), level of potential (high, medium, low, negligible), distance and direction from site, locations within site, relevant habitat features, connectivity, etc.</p>	<p>Potential Impacts</p>	<p>Recommendations:</p> <p>Requirement for further survey and/or mitigation. See Appendix B for indicative survey timing.</p>
<p>European Sites (e.g. SPA/SAC/Ramsar designated) within 2km</p> <p>Internationally important and protected by law:</p> <ul style="list-style-type: none"> • NERC Act 2006 S.41 • Conservation Regulations 2010 (as amended) 	<p>Hydrologically linked to:</p> <ul style="list-style-type: none"> • The Swale Estuary is within a proposed Marine Conservation Zone (rMCZ) recommended the South East England Biodiversity Forum (SEEBF, 2011). • The Swale SPA • The Swale Ramsar Site <p>Faversham Creek hydrologically connects to The Swale. The main channel of The Swale is sub-tidal and is one of the Key Inshore Biodiversity Areas in the Balanced Seas Region identified for protection in the rMCZ to complement the intertidal habitats protected by The Swale SSSI and SPA (refer to Appendix E).</p> <p>The European site includes a wide variety of intertidal broad-scale habitats including areas of intertidal rock, shingle, sand and mudflats, saltmarsh and extensive grazing marshes.</p> <p>Wetlands provide habitats for extensive breeding and migratory birds qualifying as a Ramsar site. The site supports a number of terrestrial and marine plants species, a significant number of rare invertebrate species, and is of considerable geological importance.</p> <p>Please see Appendix C which details the qualifying features for designation of these EU Sites.</p>	<p>The proposed works should not impact on The Swale Estuary and extensions. However, care should be taken during construction to avoid pollution to Faversham Creek.</p> <p>There is potential for a sub-tidal inlet (runnel) from Faversham Creek (refer to Figure 1 & 2) to be impacted during construction phase.</p> <p>Should there be a pollution event whilst carrying out remedial works then this could affect the European sites.</p>	<p>Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).</p> <p>An Assessment of Implications of on European Sites (AIES) screening matrix will need to be completed to confirm if significant effects on The Swale are likely.</p> <p>Works should not encroach into these sensitive areas. However, Careful planning during construction should be taken to avoid impacting on sensitive areas.</p>



<p>Sites of Special Scientific Interest (SSSI) designated sites within 1km</p> <p>Nationally important and protected by law:</p> <ul style="list-style-type: none"> • NE Wildlife & Countryside Act 1981 (as amended) 	<p>The Swale Estuary and extensions are fully protected by SSSI</p> <p>Please see Appendix C which details the qualifying features for designation of these UK Sites.</p>	<p>As above.</p>	<p>Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).</p>
<p>Local Wildlife Sites (LWS) within 1km</p> <p>Non-statutory designation – local planning consideration</p>	<p>Abbey Fields, Faversham LWS is 450m from site.</p>	<p>No impacts are predicted on Abbey Fields LWS due to the geological barrier of Faversham Creek.</p>	<p>No required.</p>
<p>Other notable habitats</p> <p>E.g. those listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 S.41 	<p>Higher Level Stewardship Scheme is within the footprint on east side of scheme. (refer to Figure 1 & 2).</p>	<p>A small area within the 'Higher Level Stewardship Scheme' will be directly impacted by the works.</p>	<p>Minimise the area of habitat impacted. Keep construction activities contained within close proximity to the scheme.</p> <p>Where habitat loss or fragmentation is unavoidable, seek to compensate through sensitive landscaping with native species.</p>
<p>Notable plants</p> <p>Some may be protected under:</p> <ul style="list-style-type: none"> • Wildlife & Countryside Act 1981 (as amended) • Conservation Regulations 2010 (as amended) <p>or listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 • UK Red Data Book 	<p>No notable plants were seen during the site visit, although this is not indicative since a botanical survey was not conducted.</p> <p>Records of notable plants provided by KMBRC, exist in the surrounding areas of site, including frogbit (<i>Hydrocharis morsus-ranae</i>), (IUCN Red List Vulnerable) divided sedge (<i>Carex divisa</i>) (UK BAP, NERC & Nationally Scarce Status), sharp rush (<i>Juncus acutus</i>) (Kent RDB1) and golden-samphire (<i>Inula crithmoides</i>)</p>	<p>The proposed development has low to moderate potential to cause damage to notable plant species during vehicle/plant movements and site clearance.</p>	<p>A botanical survey is recommended, over the summer months when the plants are in flower, to determine whether or not the notable species listed are present within the scheme footprint.</p> <p>Vigilance for rare species should be maintained, following a briefing on identification to site personnel. Minimise the area impacted. Keep construction activities contained within close proximity to the scheme.</p>



<p>Notable plants - Invasive non-native species (INNS)</p> <p>Those listed under:</p> <ul style="list-style-type: none"> Wildlife & Countryside Act 1981 (as amended) Schedule 9 	<p>No invasive non-native plants were seen during the site visit, although this is not indicative of their absence since a botanical survey was not conducted.</p>	<p>Organisations have a legal responsibility to prevent any invasive non-native plant listed in Schedule 9 of the Wildlife & Countryside Act 1981 that is growing on their premises from spreading beyond their land.</p>	<p>Maintain vigilance for INNS whilst clearing vegetation. If found, adhere to a contaminated waste disposal plan and know how to handle the plants safely.</p>
<p>Notable invertebrates / assemblages</p> <p>Some may be protected or listed under:</p> <ul style="list-style-type: none"> NERC Act 2006 UK Red Data Book 	<p>There is potential for notable invertebrate species to be present within the creek, or within the inlet of water (runnel) margin vegetation.</p> <p>The desk study returned numerous records of rare invertebrates particularly at Ham Marshes and Oare. However, there were no notable invertebrate records of species directly on site. Therefore, it is considered the potential for notable invertebrate is considered to be low.</p>	<p>Should a pollution event occur, then this is likely to have a detrimental impact on any notable invertebrates living in the creek & runnels/inlets.</p>	<p>Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).</p>



<p>Nesting birds</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Wildlife & Countryside Act 1981 (as amended) <p>Some may be listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 • RSPB Birds of Conservation Concern 	<p>There is high potential for nesting birds to be present within various areas of the site within the scrub and tree cover (Photograph 6). There is also high potential for nesting water fowl in the water margin vegetation.</p> <p>It also provides breeding and winter habitats for important assemblages of wetland bird species.</p> <p>The Swale extensions (SPA, SSSI and Ramsar site) adjacent to the scheme provide extensive habitat of intertidal mudflats, shell beaches, saltmarshes and grazing marshes for breeding and wintering waterfowl and the majority of the records were obtained within this area.</p>	<p>The removal of habitat or vegetation clearance during the period March to August inclusive risks damaging active bird nests of common species during the main breeding season.</p> <p>Disturbance to over wintering birds in adjacent habitat (i.e. Swale extensions – Ramsar site).</p>	<p>Nesting habitat clearance should ideally take place in the months September-February, outside of the main bird breeding season. However, the works should avoid disturbing over wintering birds too.</p> <p>The extent of tree and shrub clearance should be minimised to only the area absolutely required for works access.</p> <p>If any unforeseen active birds’ nests are discovered during this time then works should stop and an ecologist contacted for advice.</p> <p>If such clearance activity is required during the breeding season (March-August) then an inspection for active nests must be made within 48 hours prior to starting works. If a nest is found, works will need to be delayed at this location until the chicks have fledged.</p>
<p>Bats</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Conservation Regulations 2010 (as amended) • Wildlife & Countryside Act 1981 (as amended) <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>North west of the Faversham Reach within a small area of amenity grassland there are two mature cracked willow trees present with low to moderate levels of bat potential (refer to Figure 2 – Photographs 9-10).</p> <p>Crack willow tree features are loose peeling bark, cracks and rot holes.</p> <p>The creek offers a commuting corridor for bats, with foraging possibilities along the water and the marginal vegetation and scrub areas.</p> <p>Five records of bat roosts and four maternity roosts exist within a 1km radius of the site.</p>	<p>Trees with bat potential may need to be cleared to carry out the remedial works, which could result in damage or destruction of a potential bat roost which would be an offence under the legislation.</p> <p>Features used by bats for navigation and foraging are not legally protected, but are nonetheless important for bat conservation.</p>	<p>Any potentially impacted trees with low or moderate bat roost potential should be subject to a daytime close inspection with torch and endoscope and should include tree-climbing if necessary. If this cannot confirm that the feature isn’t a bat roost but it still has potential, then further surveys will be required. This is likely to include both dusk and dawn surveys to identify emergence and/or re-entry to a roost, and the species concerned between May to September.</p> <p>Should roosting bats be discovered, a European Protected Species (EPS) licence may be required for the development to proceed where it impacts the roost.</p>



<p>Hazel dormouse (<i>Muscardinus avellanarius</i>)</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Conservation Regulations 2010 (as amended) • Wildlife & Countryside Act 1981 (as amended) <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>The site has negligible potential for dormouse habitation due to the relative paucity of tree and scrub cover and the isolation from other more extensive areas of scrub and woodland, due to effective barriers such as main roads, the creek, urban areas and open grassland.</p> <p>No records of hazel dormouse within 1km of the site were returned from the KMBRC data search.</p>	<p>None predicted</p>	<p>None required</p>
<p>Brown Hare (<i>Lepus europaeus</i>)</p> <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>There is negligible potential for brown hare to be present within the site. Historical data recorded show three sighting in Ham Marshes, one in 1985 and two in 1992 (TR06G).</p>	<p>None predicted</p>	<p>None required</p>
<p>Hedgehog (<i>Erinaceus europaeus</i>)</p> <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>There is potential for hedgehogs to be present in the habitats within the site.</p> <p>There is one record of hedgehog within 1km of the site within The Brents, Faversham (TR017 616 in 2009).</p>	<p>There is potential to injure hedgehogs during habitat clearance operations.</p>	<p>Maintain vigilance during site clearance operations to avoid injuring hedgehogs. If found during operations, seek advice on moving them to safe habitat nearby.</p> <p>To avoid trapped animals during construction, all deep, steep-sided trenches should be carefully covered at night or fitted with a means of escape for mammals.</p>
<p>Badger (<i>Meles meles</i>)</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Protection of Badgers Act 1992 	<p>The site has negligible potential to support badgers in terms of setts, foraging and commuting routes.</p> <p>No signs of badger were identified during the scoping survey or any recorded data.</p>	<p>None predicted</p>	<p>None required.</p>



<p>Reptiles</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Wildlife & Countryside Act 1981 (as amended) <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>During the site visit areas were identified that are classified as good habitat for common reptiles - rough grass, tall herbs and scrub combined with varied topography. These habitats offer opportunity for reptile sheltering, foraging, basking, dispersal and hibernation.</p> <p>KRAG records reveal the presence of common reptile species (common lizard (<i>Zootoca vivipara</i>), slow worm and grass snake (<i>Natrix natrix</i>)) within 1km of the site boundary with either a high presence in adjacent habitats.</p> <p>The closest recorded reptile observation is:</p> <ul style="list-style-type: none"> • Slow-worm – 360m • Common lizard – 400m. • Grass snake – 800m 	<p>The proposed scheme has potential to cause death or injury to common reptiles during vehicle/plant movements and site clearance. In addition to negative biodiversity effects, this could be an offence under the legislation if done with the knowledge of such impacts being likely.</p>	<p>Reptile survey to determine presence or likely absence and species composition is required. This will involve placing artificial cover objects suitable for basking along sections of the affected riverside habitat that are representative of the whole impact zone. These will need to be checked on at least 7 separate visits during the active season (April-September) when temperatures and weather are conducive to basking activity.</p> <p>If reptiles are found during these initial visits, a further 8 visits may be required to estimate the relative population size of each species.</p>
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<p>Great crested newt (GCN) (<i>Triturus cristatus</i>)</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Conservation Regulations 2010 (as amended) • Wildlife & Countryside Act 1981 (as amended) <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>There are five ponds and three drains within 1km of the site. KRAG recorded the likelihood of presence for GCN as 'possible.'</p> <ul style="list-style-type: none"> • The closest pond is approximately 139m from the scheme. • The closest ditch is approximately 92m from the scheme. • The closest recorded GCN observation is a historical record located at Judd's Hill, 2.51km to the south-west of site. 	<p>Site clearance and other movements of plant and vehicles have potential to kill or injure great crested newts. Pollution of water bodies could have similar impacts.</p> <p>Habitat removal during site clearance and drainage carries the risk of destroying resting places for great crested newts.</p> <p>These impacts, alone or in combination, could negatively affect a great crested newt population at the local scale and would constitute offences under the legislation.</p>	<p>Ponds and ditches within 250m of the site will need to be subject to a Habitat Suitability Index (HSI) Assessment. This may allow some of the ponds to be scoped-out of detailed survey based on their condition, leaving a short-list for further surveys if required.</p> <p>The further, detailed surveys involve four separate visits to the ponds and ditches to determine presence or likely absence of GCN. Two of these must take place between mid-April and mid-May. Where GCN are found through these four visits, then another two visits are required for a population size-class estimate, and one of these must be in mid-April to mid-May.</p> <p>If great crested newts are present and likely to be impacted, then a detailed mitigation strategy will need to be developed to inform a European Protected Species (EPS) licence application to Natural England. Licenced mitigation may involve trapping and translocation of great crested newts to a pre-prepared receptor site in the wider locality.</p>
<p>Water vole (<i>Arvicola amphibius</i>)</p> <p>Protected by law:</p> <ul style="list-style-type: none"> • Wildlife & Countryside Act 1981 (as amended) <p>Listed under:</p> <ul style="list-style-type: none"> • NERC Act 2006 	<p>During the site visit a cursory search for water voles was carried out along the runnel. No obvious feeding signs, mammal burrows or tracks were observed during the ecological appraisal.</p> <p>There is low potential for water vole occupation within the runnel located within the site. The sub-tidal inlet of part saline waters flowing from Faversham Creek is unsuitable.</p> <p>Previous records from the KMBRC data search showed two observations located (Grid reference TR06G) in 1976 and 2000.</p>	<p>None predicted</p>	<p>No survey required.</p>



<p>Otter (<i>Lutra lutra</i>)</p> <p>Protected by law:</p> <ul style="list-style-type: none">• Conservation Regulations 2010 (as amended)• Wildlife & Countryside Act 1981 (as amended) <p>Listed under:</p> <ul style="list-style-type: none">• NERC Act 2006	<p>The aquatic habitats throughout the site have potential for otter occupation. However, otters are known to be very scarce in Kent and there is limited evidence that they are currently present within this area.</p> <p>Previous records from the KMRBC data search showed no historical record of an otter within 1km of the site.</p>	<p>None predicted</p>	<p>No survey required.</p>
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4. Summary Recommendations

The following recommendations have been made in Section 3 based on the results of this preliminary study. These should be implemented with full consideration of wildlife legislation described in Appendix C and seasonal restrictions shown in Appendix D.

European Sites - Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).

An Assessment of Implications of on European Sites (AIES) screening matrix will need to be completed to confirm whether or not the scheme will have significant effects on the Swale SPA.

Sites of Special Scientific Interest (SSSI) - Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).

Local Wildlife Sites (LWS) - Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).

Where loss or fragmentation of terrestrial habitat is unavoidable, seek to compensate through sensitive landscaping with native species.

Other habitats – Higher Level Stewardship Scheme - Minimise the area of habitat impacted. Keep construction activities contained within close proximity to the scheme.

Where habitat loss or fragmentation is unavoidable, seek to compensate through sensitive landscaping with native species.

Notable plants - Invasive non-native species (INNS) - Maintain vigilance for INNS whilst clearing vegetation. If found, adhere to a contaminated waste disposal plan and know how to handle the plants safely.

Notable invertebrates / assemblages - Adhere to Environment Agency guidelines on pollution prevention for construction activity near to watercourses (e.g. PPG5).

Nesting birds - Nesting habitat clearance should ideally take place in the months September-February, outside of the main bird breeding season. Disturbance should be kept to a minimal any impact to over wintering birds.

The extent of tree and shrub clearance should be minimised to only the area absolutely required for works access.

If any unforeseen active birds' nests are discovered during this time then works should stop and an ecologist contacted for advice.

If such clearance activity is required during the breeding season (March-August) then an inspection for active nests must be made within 48 hours prior to starting works. If a nest is found, works will need to be delayed at this location until the chicks have fledged.

Bats - Any potentially impacted trees with low or moderate bat roost potential (refer to Figure 2 – Photographs 9-10) should be subject to a daytime close inspection with torch and endoscope and should include tree-climbing if necessary. If this cannot confirm that the feature is not a bat roost but it still has potential, then further surveys will be required. This is likely to include both dusk and dawn surveys to identify emergence and/or re-entry to a roost, and the species concerned.

Should roosting bats be discovered, a European Protected Species (EPS) licence may be required for the development to proceed where it impacts the roost.

Hedgehog - Maintain vigilance during site clearance operations to avoid injuring hedgehogs. If found during operations, seek advice on moving them to safe habitat nearby.

To avoid trapped animals during construction, all deep, steep-sided trenches should be carefully covered at night or fitted with a means of escape for mammals.

Reptiles - Reptile survey to determine presence or likely absence and species composition is required. This will involve placing artificial cover objects suitable for basking along sections of the affected riverside habitat that are representative of the whole impact zone. These will need to be checked on at least 7 separate visits during the active season (April-September) when temperatures and weather are conducive to basking activity.

If reptiles are found during these initial visits, a further 8 visits may be required to estimate the relative population size of each species.

Great crested newt - Due to the nearest pond being 138m and a drain located 98m from site it is recommend a Habitat Suitability Assessment be undertaken within 250m of the scheme. This may allow some of the ponds to be scoped-out of detailed survey based on their condition, leaving a short-list for further survey surveys if required.

The further, detailed surveys involve four separate visits to the ponds and ditches to determine presence or likely absence of GCN. Two of these must take place between mid-April and mid-May. Where GCN are found through these four visits, then another two visits are required for a population size-class estimate, and one of these must be in mid-April to mid-May.

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If great crested newts are present and likely to be impacted, then a detailed mitigation strategy will need to be developed to inform a European Protected Species (EPS) licence application to Natural England. Licenced mitigation may involve trapping and translocation of great crested newts to a pre-prepared receptor site in the wider locality.

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References

- Kent and Medway Biological Records Centre (July 2015).
- All UK (and individual UK countries) legislation can be viewed at:
<http://www.legislation.gov.uk/browse>
- Google Maps. 2015. [online] Available from: <https://www.google.co.uk/maps>
- Magic Map Application. 2015. [online] Available from:
<http://magic.defra.gov.uk/MagicMap.aspx>
- Grid reference finder [online] Available from <http://gridreferencefinder.com/>

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Appendix A - Figures

Figure 1 - Site Location & Designations

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Figure 2

Appendix B - Photographs



Photograph 1 – Showing proposed ramp location at point B (see red arrow).



Photograph 2 – View from point B looking towards point A showing vegetation (refer to Figure 1 & 2)



Photograph 3 – Showing alternative route point F (of Public Footpath ZF5 (see red arrow)).



Photograph 4 – Showing point H - A cantilever type addition would be required to allow the passage of walkers across the slipway (see red arrow).



Photograph 5 – Showing point L location for second ramp to join up with existing footpath (note: this section is in the Higher Level Stewardship Scheme).



Photograph 6 – Area of scrub far southwest of scheme providing suitable habitat for nesting birds, hedgehogs and reptiles.



Photograph 7 – View from point H looking northwards showing existing gravelled walkway alongside creek.



Photograph 8 –View southwest of scheme looking eastwards showing amenity grass and vegetated / wet area.



Photograph 9 –View of tree (1) with potential bat roost located on the amenity grassland (refer to Figure 2)



Photograph 10 –View of tree (2) with potential bat roost located on the amenity grassland (refer to Figure 2)

Appendix C - Wildlife Legislation and Policy

The Wildlife & Countryside Act 1981 (as amended)

Provides for designation and protection of Sites of Special Scientific Interest (SSSI), which are areas that represent the most valuable habitats in the UK for nature conservation.

The Act creates the following offences:

- To intentionally kill, injure, or take any wild bird or their eggs or nests (with exception to species listed in Schedule 2). Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young.
- To intentionally kill, injure, or take, possess, or trade in any wild animal listed in Schedule 5, and interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.
- Certain methods of killing, injuring, or taking wild animals listed in Schedule 6.
- To pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants.
- The release of certain non-native animals and the planting of plants listed in Schedule 9.

It also provides a mechanism making any of the above offences legal through the granting of **licences** by the appropriate authorities.

Conservation of Habitats and Species Regulations 2010 (as amended)

The principal means by which the European Habitats Directive is transposed in England and Wales.

Provide for the **designation** and protection of a network of 'European Sites' (also termed Natura 2000), including Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

Regulation 41 creates the following **offences** relating to European Protected Species (EPS):

- deliberately capture, injure or kill any wild animal of a European Protected Species;
- deliberately disturb animals of any such species in such a way as to be likely to:

Project Name Footpath Ramp ZF5 (Faversham Reach & Waterside Close Project)



Document Title Preliminary Ecological Appraisal

- impair their ability to survive, breed, rear or nurture their young, hibernate or migrate, or
- significantly affect the local distribution or abundance of the species to which they belong;
- deliberately take or destroy the eggs of such an animal; or
- damage or destroy a breeding site or resting place of such an animal.

The Regulations also make it an offence (subject to exceptions) to deliberately pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5.

However, the actions listed above can be made lawful through the granting of **licences** (European Protected Species Licence) by the appropriate authorities (Natural England in England). Licences may be granted for a number of purposes, but only after the appropriate authority has determined that the following regulations are satisfied:

- the works under the licence are being carried out for the purposes of 'preserving public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment'.
- there is 'no satisfactory alternative'
- the action 'will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in their natural range'.

To apply for a licence, the following information is required:

- The species concerned.
- The relative size of the population at the site (note this may require a survey to be carried out at a particular time of the year).
- The impact(s) (if any) that the development is likely to have upon the populations.
- What measures will be conducted to mitigate for the impact(s).

Natural Environment & Rural Communities (NERC) Act 2006

Section 40 of NERC carries an extension of the earlier CRow Act biodiversity **duty to public bodies and statutory undertakers** to ensure due regard to the conservation of biodiversity. Section 41 requires the Secretary of State, as respects England, to publish a list of species and habitats which are of 'principal importance for the purpose of conserving biodiversity'. These lists generally reflect the species and habitats previously listed under the UK Biodiversity Action Plan.

The Protection of Badgers Act 1992

This makes it an offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so and to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it.

Under Section 10 (1)(d) of the Protection of Badgers Act 1992, a licence may be granted by Natural England to interfere with a badger sett for the purpose of development, as defined by Section 55(1) of the Town & Country Planning Act 1990.

The Wild Mammals (Protection) Act 1996

The Wild Mammals (Protection) Act 1996 makes it an offence for any person to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

The Animal Welfare Act 2006

This imposes a duty of care on anyone responsible for an animal to take reasonable steps to ensure that the animal's needs are met. This means that a person has to look after the animal's welfare and ensure that it does not suffer. The Act says that an animal's welfare needs include:

- a suitable environment;
- a suitable diet;
- the ability to exhibit normal behaviour patterns;
- any need it has to be housed with, or apart from, other animals; and
- protection from pain, suffering, injury and disease.

With regards to development, this may have implications when capture and translocations of animals are proposed.

The Hedgerows Regulations 1997

The Hedgerows Regulations 1997 were introduced to protect important hedgerows from destruction. However the legislation does not apply to any hedgerow that is within or marking the boundary of the curtilage of a dwelling house.

For the Regulations to be applicable, the hedgerow must be at least 20 metres in length or, if less than 20 metres, it must meet another hedgerow at each end. A hedgerow is deemed to be important if it is more than thirty years old and meets at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

If a hedgerow which qualifies under the Regulations is to be removed, the landowner must contact the Local Planning Authority (LPA) in writing by submitting a hedgerow removal notice. The LPA then has a period of 42 days to decide whether or not the hedgerow meets the importance criteria of the regulations.

National Planning Policy Framework

This framework replaces Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS 9) (ODPM 2005b) and sets out the view of central Government on how planners should balance nature conservation with development. One of the key principles of the NPPF is:

The NPPF states that development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas, including biodiversity. It also states that the aim of planning decisions should be to prevent harm to biodiversity conservation interests and to 'promote the preservation, restoration and re-creation of priority habitats, ecological networks and the recovery of priority species'.

Where determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principals; 'if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'; and, 'planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss'.

This means that full ecological surveys should be carried out and suitable mitigation measures proposed prior to any planning application being submitted.

Biodiversity 2020: A strategy for England's wildlife and ecosystem services

This biodiversity strategy for England builds on the Natural Environment White Paper and the earlier UK Biodiversity Action Plan. It provides a comprehensive picture of how Government is implementing our international and EU commitments and sets out the strategic direction for biodiversity policy up to 2020. Its mission is to:

“halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.”

In relation to planning and development its priority is to:




“take a strategic approach to planning for nature within and across local areas. This approach will guide development to the best locations, encourage greener design and enable development to enhance natural networks. We will retain the protection and improvement of the natural environment as core objectives of the planning system.



Appendix D - Survey Calendar

Species	Months											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Great Crested Newt	Hibernation		Pond surveys	Pond surveys		Pond surveys	Habitat Suitability Assessment only					Hibernation
Reptiles	Hibernation		Limited activity	Artificial refuge surveys			Reduced basking time		Artificial refuge surveys	Limited activity	Hibernation	
Bats	Hibernation roost survey			Summer roost & activity surveys							Hibernation roost survey	
	Roost potential and close inspections of roosts possible all year. Trees are best inspected (for potential) in winter.											
Nesting Birds	No or low nesting activity		Increased nesting activity						No or low nesting activity			
Botanical				Reduced flowering	Main flowering season			Reduced flowering				

Key to timing:

Optimal survey period	
Sub-optimal survey period	
Surveys unreliable	

NOTE: Timings and activity shown is indicative and may vary depending on weather and region. Some surveys may require licences.

Always consult an Amey ecologist for advice.

Appendix E - Qualifying Features for Designation of EU Sites

The Swale Estuary rMCZ no 10

Marine Conservation Zone : Selection Assessment Document

Version and Issue date Amendments made V1.0 07.09.11 Draft final recommendations refined by the RSG and Local Groups in July 2011 and finalised by the RSG 2/3 August 2011.

1. Site name - The Swale Estuary rMCZ no 10

2. Site centre location ETRS89 N51 22' 7.491" E0 55' 48.876" N51 22.125' E0 55.815'

3. Site surface area 5105 ha 51.05 km²

4. Biogeographic region Southern North Sea

5. Features proposed for designation within the Swale Estuary 1

Feature type Feature name Area / No. of records

Feature type	Feature name	Area / No. of records ²
Broad-scale habitats	A1.3 low energy intertidal rock	0.61 km ²
	A3.3 low energy infralittoral rock	0.96 km ²
	A5.2 subtidal sand	9.23 km ²
	A5.3 subtidal mud	6.84 km ²
	A5.4 subtidal mixed sediments	13.53 km ²
Habitat FOCI	Blue mussel beds	0.21 km ²
	Peat and clay exposures	0.74 km ²
	Rossworm (<i>Sabellaria spinulosa</i>) reef	625.67m ²
	Sheltered muddy gravels	11 records
	Subtidal sands and gravels	0.24 km ²
Species FOCI Low mobility	Native Oyster (<i>Ostrea edulis</i>)	2 records
Species FOCI High mobility	European Eel (<i>Anguilla anguilla</i>)	n/a

6. Features within the Swale Estuary not proposed for designation 3

Feature type Feature name Comments

Feature type	Feature name	Comments
Broad-scale habitats	A1.1 High energy intertidal rock	Small areas
	A1.2 Moderate energy intertidal rock	Small areas
	A2.2 Intertidal sand and muddy sand	Small areas
	A2.3 Intertidal mud	Fully protected by The Swale SSSI
	A2.5 Coastal saltmarshes/saline reedbeds	Fully protected by The Swale SSSI
	A2.6 intertidal sediments (aquatic angiosperms)	Fully protected by The Swale SSSI
	A5.1 Subtidal coarse sediment	Not occurring (on boundary)
	Mosaic of A2.3, A2.5	Fully protected through The Swale SSSI and SPA
Habitat FOCI	Seagrass beds	Fully protected by The Swale SSSI
Species FOCI High mobility	Smelt (<i>Osmerus eperlanus</i>)	Only a very few individuals
	Undulate Ray (<i>Raja undulata</i>)	None occurring within the site

1 Sources of information relating to these features are listed in Section 13.

2 Areas have been calculated according to spatial GIS data and are indicative only. A "record" is a survey point where a single individual, population or habitat has been found.

3 Features may occur in both tables (sections 5 & 6) if the rMCZ overlaps with an existing MPA where the features are protected.

7. Site summary

The site is considered to be a highly biodiverse area, and is important as a spawning and nursery ground for various species. The main channel of the Swale Estuary is subtidal mud and subtidal mixed sediments, which have been identified for protection in the rMCZ to complement

the intertidal broad-scale habitats protected by The Swale SSSI and SPA. Subtidal sands and gravels at The Street in Whitstable have also been identified for protection. The site also contains intertidal and subtidal Blue Mussel beds, native oysters, peat and clay exposures (specifically of London Clay), Rossworm (*Sabellaria spinulosa*) reef and good examples of sheltered muddy gravels.

Although the RSG agreed to put this site forward for its conservation importance, there was no consensus at Local Group level and considerable opposition from some sectors, particularly the private landowners and oyster fisheries that own a large proportion of the site. The draft conservation objectives potentially affect various activities but a better understanding of the distribution of the features proposed for protection and the activities that might impact on them is essential in order to discuss appropriate management.

8. Detailed site description

The following is a description of the site based on extracts from literature held by the Balanced Seas Project and stakeholder correspondence. It does not constitute a complete literature review or ecological description of the site.

This site covers the Swale Estuary from the point at which it meets the Medway Estuary, south of the Isle of Sheppey, seawards to the end of The Street at Whitstable. The Estuary is made up of vast saltmarshes and grazing marshes (Medway and Swale Estuary Partnership, 2003) supporting breeding wildfowl and scarce plant and invertebrate species (Halcrow Ltd, 2010). The broad-scale habitat information is provided by the UKSeaMap/MESH data (JNCC 2011 v.7), which shows the site contains low energy intertidal and infralittoral rock, subtidal sand, mud and mixed sediments (see Broad-scale habitats map). The most significant source of sediment to the

Swale and Medway estuaries is from the offshore supply of fine suspended material from the Great Thames Embayment. High rates of sea level rise & low rates of sediment supply may lead intertidal mudflat habitats to suffer from erosion where defences or high land constrain landward upward movement of the shoreline (Halcrow Group Limited, 2010).

As explained at the Local Group meeting (July 2011), the blue mussel beds were historically commercially important and the reason for their decline is unclear, but it may be due to a combination of contaminants from wood pulp factories in the past and change of habitat from sand to clay due to storm events. Some stakeholders believe that the habitat is no longer suitable for the beds to re-establish.

The national contract data (Seeley *et al.* 2010 MB102 2B) seriously under-estimates the extent of the distribution of native oysters in the Swale, where there are important commercial fisheries (see FOCI map). Native oyster stocks in Kent have however, like the mussels, diminished drastically over the last two centuries (Bayes, 2009), due to a variety of factors including the pest, the slipper limpet *Crepidula fornicata* and possibly habitat and water quality change. A large proportion of the native oyster beds are privately owned (there are four private oyster fisheries) and these companies have invested considerable resources over time in trying to improve stocks (North Kent Local Group meeting, July 2011).

The Wildlife Trust has provided data on peat and clay exposures additional to the national contract data, and has highlighted some important areas where this feature is London Clay (see Figures 1-3).

The Environment Agency collated biotope data from various regional surveys, which were used to locate sheltered muddy gravel locations and to show that this example of the habitat is particularly biodiverse. Subtidal sands and gravels are found on the boundary of the site where

it joins the Medway. The national contract data (Seeley *et al.* 2010 MB102 2B) gives two data points for Rossworm reef (*Sabellaria*) but some local stakeholders have considerable doubts about these records, and a DONG Energy representative said that a 2010 survey of the mouth of the Swale did not reveal any *Sabellaria* here. The Wildlife Trust however considers this site to have suitable habitat for *Sabellaria* and that this should be protected (North Kent Local Group meeting, July 2011). The EA data showed that mud habitats in deep water occur in the Swale, but stakeholders felt that the estuary was too shallow to qualify for this description and did not recommend this feature for protection here (RSG 8, 20.04.11). Subtidal sands and gravels occurring adjacent to The Street at Whitstable were specifically listed for protection.

The Wildlife Trust has collated records of species and habitats that are important to the southeast region and their dataset shows that this site contains rare algal communities on shingle, as well as Peacock worm (*Sabella pavonina*) and important sea squirt beds (see Southeast Features map). The estuary is one of the Key Inshore Biodiversity Areas in the Balanced Seas Region recommended as an MCZ by the South East England Biodiversity Forum (SEEBF, 2011). A variety of bird species use this site as one of the complex networks of 'refuelling' sites as they migrate to wintering grounds further south (Medway and Swale Estuary Partnership, 2003). Stakeholders have noted that the area would benefit from general protection for spawning and nursery grounds but no specific information was provided for individual species.

9. Site boundary

The landward boundary of the site is described by the Mean High Water mark right up to the point at which the estuary meets the Medway (this site abuts rMCZ 6 Medway Estuary). The seaward extent begins to the east of The Street at Tankerton and follows a straight line to the north west to meet the navigational buoy at the end of The Street, and westwards to meet Columbine Spit buoy before meeting the land at the groynes along Shellness Road on the Isle of Sheppey.

10. Conservation objectives

Individual conservation objective forms for each feature can be found in Appendix 1. For a sitebased summary of the conservation objectives and proposed management measures, please see Section 15.

11. Sites to which this site is related

This site overlaps The Swale SSSI and SPA, the Outer Thames Estuary SPA, and two Ramsar sites: The Swale, and Thanet Coast and Sandwich Bay (not visible on map).

12. Supporting documentation (information relating to ENG features only)

Information	Type of information	Source	Name of survey	Date
Broad-scale habitats	Modelled and survey data	JNCC V.7 Combined UKSeaMap and MESH	Combined	June 2011
Blue mussel beds	Survey	Kent Wildlife Trust		2005-2010
Blue mussel beds	Survey	National contract data, DEFRA MB102 2C	JNCCMNCR10000453	1993
Peat and clay exposures	Survey	National contract data, DEFRA MB102 2C		11/02/2009 And 19/12/2004
Peat and clay exposures	Survey	Kent Wildlife Trust		2005-2009
Subtidal sands and gravels	Survey	National contract data DEFRA MB102 2C		13/09/2006
Rossworm (<i>Sabellaria spinulosa</i>) reef	Survey	Kent Wildlife Trust (Sourced from: Environment Agency database)	Thames Array Benthic Grab Survey 2004	31/12/2004
Sheltered muddy gravels	Survey	Sourced from: Environment Agency database	Swale Habitats Directive Survey Habitats Directive Survey North Kent Marshes Estuarine Invertebrate Surveys	04/04/03
Sheltered muddy gravels	Survey	Sourced from: Environment Agency database	Swale Habitats Directive Survey	05-Dec-01
Native oyster (<i>O.edulis</i>)	Survey	National contract data, DEFRA MB102 2B		01/01/1955 And 14/12/2003
European eel (<i>Anguilla Anguilla</i>)	Survey	National contract data, DEFRA MB102 2B	CEFAS	

13. References (additional information can be found in the Bibliography)

- BAYES, J. 2009. *Shell Fish Production and Problems*. Seasalter Shellfish (Whitstable) Ltd, Whitstable. Unpublished report.
- SEELEY, B., LEAR, D. HIGGS, S. NEILLY, M. BILEWITCH, J. EVANS, J. WILKES, P. & ADAMS, L. 2010. *Assessing and Developing the Required Biophysical Dataset and Data Layers for Marine Protected Areas Network Planning and Wider Marine Spatial Planning Purposes: Mapping of species with limited mobility (Benthic species). (MB102 Task 2B)*. DEFRA, London.
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- DP World. 2010. London Gate Port & The Marine Environment
- MEDWAY SWALE ESTUARY PARTNERSHIP. 2010. *Medway Estuary and Swale Shoreline Management Plan*. Halcrow Group Ltd, Swindon.
- MEDWAY SWALE ESTUARY PARTNERSHIP. 2003. *Bird Atlas : Medway & Swale Estuary*. The Medway Swale Estuary Partnership, Gillingham.
- MEDWAY SWALE ESTUARY PARTNERSHIP. 2003. *Environmental Atlas : Medway & Swale Estuary*. The Medway Swale Estuary Partnership, Gillingham.
- SOUTH EAST ENGLAND BIODIVERSITY FORUM (SEEBF) 2011. *Key Inshore Biodiversity Areas in the Balanced Seas Region for Recommendation as Marine Conservation Zones*. Letter and list to RSG and Balanced Seas Project Team, 22 Nov 2011.

14. Stakeholder support for the site

At the LG meeting in July 2011, no consensus was reached on the acceptability of an rMCZ here. It was agreed that the general health of the estuary had declined and that efforts to improve this had not been successful. The wildlife sector felt that an MCZ was the best opportunity to remedy this but other stakeholders felt that a better understanding of the causes of the decline is needed first. Private land owners and oyster fisheries have major concerns about possible restrictions to their activities.

The RSG as a group reached consensus that this site should be put forward in their final recommendations. The Medway and Swale Estuary Partnership provides a useful stakeholder forum to continue discussions about this site. Individual sectors wishing to note their support or concerns about the site recorded the following at the final RSG meeting in August 2011; their comments have been transcribed verbatim from the form that they completed:

SECTOR ORGANISATION COMMENT for The Swale Estuary rMCZ 10

Yachting RYA

Support subject to feature verification and, if recover, voluntary code of conduct on anchoring. MMO to verify, including in relation to anchoring on private seabed. If recover, depends on voluntary code.

Kite Surfing

British Kite Surfing Association Supported.

Sea Angling

Not support recover but would support maintain with code of conduct. Site not supported locally needs more local consultation.

Ports

Any overlap with Whitstable Harbour's dredge needs to be checked.

Local Fisheries Representatives

Little support will be gained from fisheries reps on the basis something may occur.

Fishing - under 10s (static gear) NUTFA (Tick)

Fishing - FPO, beam trawling

I have no real knowledge of this area, or expertise, but fisheries sector overriding principle is that "current activities must be allowed to continue".

Fishing - Over 10s, FPO, trawling sector (under and over 10m) Gilson Co. Not in best interest of fishing industry.

Shipping Chamber of Shipping Cannot support potential impacts on anchoring activity which is part of safe navigation and low-carbon transport. Also concerned re possible restrictions on expansion of maritime transport (via dredging).

Birds RSPB

Support site. Support 'recover' for blue mussel beds. Support 'recover' for Sabellaria + suggest this should be the CO for the supporting broadscale habitat too.

Wildlife Trusts Hampshire Wildlife Trust

I support this site but the CO for the BSH should be recover to support the recover CO for Sabellaria.

Marine ecology Seasearch

Strongly support this site for ecological importance. There needs to be recognition that habitat FOCI are reliant on underlying broadscale habitat, so CO needs to be recover for both, not just the FOCI at points where recorded.

Marine Wildlife Marine Conservation Society

Support site. There should also be a recover objective for subtidal sand, mud and mixed sediments.

IFCA Kent & Essex IFCA

General support.

Heritage and Archaeology English Heritage

Support if I+E (possibly on peat) research allowed.

15. Site summary of conservation objectives (COs) and proposed management measures

A conservation objective (CO) is a statement describing the desired quality of the feature.
Existing

MPAs in the UK use the term *Favourable Condition* to represent the desired state of their features.

Some pressures caused by human activities may stop the feature attaining favourable condition if present at sufficient intensity.

MAINTAIN means that, the *stated levels of activity* currently occurring on the feature are considered acceptable, but features will be monitored and restrictions may have to be introduced if the condition declines.

RECOVER means that restrictions may be necessary on the activity causing the pressure, in order to allow the feature to recover to favourable condition. It does not necessarily mean that the activity will be prohibited, as other mitigation measures might be appropriate (e.g. change in gear type, reduction of intensity, seasonal restrictions, etc)

The table below documents the draft COs for ALL the features listed for protection within the site, as established by JNCC and NE through the Vulnerability Assessment (VA) process⁴ and then sense checked at the national level⁵. Where a RECOVER objective is noted, the associated activity causing the pressure is indicated. In some cases, where information and data warrant it, the RSG chose to adopt the changes to COs recommended by the public authorities: Inshore Fisheries and Conservation Authorities (IFCAs), Marine Management Organisation (MMO), Environment Agency (EA) or Natural England. Changes were only accepted when recommended by these authorities and have been clearly noted. Where the VA has not yet been undertaken, or there is considerable uncertainty surrounding the accuracy of the information being used to recommend a change to the conservation objective, it has been noted as 'TO BE ASSESSED'. Local and regional stakeholders were given the opportunity to comment on the COs and potential management measures and to provide additional information that might not have been taken into account in the VA work. For greater detail on discussions relating to the site and the network, please refer to both RSG and Local

Group stakeholder meeting reports at www.balancedseas.org.

The process of establishing conservation objectives is outlined in the [Conservation Objectives Guidance](#) (JJNCC /NE 2011)

VA results were standardised across all four regional projects but the fisheries activity data is still undergoing assessment.

Feature Draft CO Activity exerting pressure

IFCA/MMO/EA/NE Comments

Stakeholder comments on draft COs and potential management measures

A1.3 Low energy intertidal rock MAINTAIN

A3.3 Low energy infralittoral rock MAINTAIN

The vulnerability assessment and resulting draft CO were only completed for the final RSG meeting in August and they were therefore not discussed at the Local Group meeting in July 2011. At the RSG meeting in August 2011, the SNCBs noted uncertainty about the overlap of commercial anchorages with this feature and the need for further information later.

A5.2 Subtidal sand MAINTAIN

SNCBs had requested further information from the LG about navigational dredging spoil disposal that might have an effect on the CO:

Historical navigation in creeks, Ridham Terminal – navigational channels are not maintained

A5.3 Subtidal Mud MAINTAIN

Vulnerability assessment stated that monitoring of commercial anchoring may need to be part of management.

A5.4 Subtidal mixed sediments MAINTAIN

SNCBs stated that monitoring of features and activities would include recreational anchoring LG (July 2011) said that there are long established recreational anchorages in the Swale; monitoring of features and activities would however include recreational anchoring at the RSG, the Wildlife sector noted that BSHs are integral to the health of *Sabellaria* and blue mussel beds and are have concerned that the COs for BSHs in this site are all set to maintain. They suggest that wherever *Sabellaria* and blue mussel beds have a RECOVER CO then the corresponding habitat should also have a RECOVER CO; the project data for this site indicates that *Sabellaria* overlaps with subtidal mixed sediments.

Blue Mussel beds RECOVER Fishing - shellfish harvesting (towed dredging)

IFCA code of conduct

IFCA recommend protection of one blue mussel bed within the Swale. This population further up the estuary might be suitable for protection and is inaccessible to vessels.

NE advised that management could be variable across the site (consultation with private ground owners would be necessary)

Several LG members (July 2011) did not support this CO because:

1. The reasons for the poor status/decline of the mussel beds are still not understood.

Towed dredges are not thought to be the main impact.

2. Vulnerability Assessment was done on information that there are 8 towed dredgers working here, but there are 3 at most working the North Side of the estuary mouth (Shellness).

- Wildlife sector support CO of RECOVER

- All sectors agree further scientific study is needed to understand the decline of the mussel beds.

- Some of the mussel beds in the south are in an area managed by Kent Wildlife Trust;

KWT says that some towed dredging occurs here but the fishing industry disagree

- Upstream intertidal mussel bed is subject to very little dredging activity and could be a seeding population for other areas

- Several LG members felt that they had worked hard over the years to understand the problem and recover the estuary and they believe that further protection is not worthwhile until the research has been done to understand the issues.

RSG comments same as for A5.4 above

Rossworm (*Sabellaria spinulosa*) reef RECOVER Fishing - benthic trawling (bottom gear)

IFCA code of conduct

NE feel the CO should stay as RECOVER; it was emphasised that no designation will go ahead until feature verification has been completed.

IFCA code of conduct

Many LG members (July 2011) did not support the CO of RECOVER because of lack of confidence in the data points; some LG members considered it does not currently occur at these locations; WT stated that it has been therein the recent past and the habitat is appropriate and thus suitable for protection for recovery

- 2010 DONG side scan survey found no evidence of Rossworm in the area but this data has not been submitted this data to the project
- Whitstable Oyster Company does dredge this area (but not heavily – one vessel and one-person crew) and owns the ground.
- Local stakeholders are concerned that due to its transient nature, restrictions may be enforced in other areas of the site and not just where the data shows the habitat to be now.
- NE feel this should stay as RECOVER; it was emphasised that no designation will go ahead until feature verification has been completed.

RSG comments same as for A5.4 above

The RSG also noted that the distribution of *Sabellaria* occurs within private grounds in this site, which presents certain problems for management.

RECOVER Fishing - hydraulic dredging (suction dredging)

RECOVER Fishing - shellfish harvesting (towed dredging)

RECOVER Tourism & recreation (anchoring from recreational vessels)

MMO code of conduct

NE feel the CO should stay as RECOVER; it was emphasised that no designation will go ahead until feature verification has been completed.

Peat and clay exposures

MAINTAIN Subtidal sands and gravels

MAINTAIN Sheltered muddy gravels

MAINTAIN SNCBs requested further information on bait digging. LG stated:

Not much sand in the area and therefore activity is not intense - 1-2 bait diggers

Native oyster MAINTAIN SNCBs requested further information on native oysters. LG stated:

- Private ground owners have tried to bolster the population over many years; native oysters only exist here because of the continued relaying of oysters and shell for spat fall settlement.

Population only enough to support one vessel

Most dense populations are on the Ham Ground owned by Seasalter Shellfisheries

European eel MAINTAIN EA regulations in place

16. Evolution of the site recommendations

This site was identified in the first RSG meeting as it contains several ENG features and is considered to be a highly biodiverse area for fish spawning and bird foraging. During RSG 6 (27.01.11), the seaward boundary was extended out to include The Street and the subtidal sediment habitats it comprises.

Various changes have been made to the features listed for protection throughout the process as it became clearer which features were already protected under existing designations (e.g. seagrass).

For greater detail on discussions relating to the site and the network, please refer to both RSG and Local

Group stakeholder meeting reports at www.balancedseas.org.

17. Implications for Stakeholders

The following activities are associated with this site:

Fuller discussion with the Medway and Swale Estuary Partnership (a multi-stakeholder coastal partnership) is necessary in relation to the management implications.

Many parts of the seabed are in private ownership by oyster companies or individuals; these stakeholders will need to be consulted on management implications and some have registered their concern regarding the implications of an MCZ. The Swale has private oyster fisheries that want to improve the environment for oyster cultivation but are concerned that an MCZ would ultimately result in restrictions that would hinder the fisheries.

The Crown Estate have noted that the site contains the London Array Wind Farm Cable, 3 active power cables and 1 active unknown cable, a proposed CCS pipeline and has licensing for wildfowling. These activities can be managed and the Crown Estate accepts the site recommendations.

This list represents only the major issues associated with the site. To see all stakeholder discussions, please refer to the Balanced Seas RSG and Local Group meeting reports at www.balancedseas.org.

The Swale extensions (Kent) Special Protection Area

The Swale extensions Special Protection Area is a wetland of international importance, comprising intertidal mudflats, shell beaches, saltmarshes and extensive grazing marshes. It provides habitats for important assemblages of wintering waterfowl, and also supports notable breeding bird populations.

The proposed extensions to the Swale SPA include areas of intertidal mudflats and grazing marshes adjacent to the existing site and within The Swale Site of Special Scientific Interest. These areas are integral components of the complex of estuarine habitats composing the Swale.

The Swale qualifies under Article 4.2 of the EC Birds Directive as a wetland of international importance by virtue of regularly supporting over 20,000 waterfowl, with an average peak count of 57,600 birds recorded in the five winter period 1986/87 to 1990/91. This total includes internationally or nationally important wintering populations of seventeen species of migratory waterfowl. Of these, two occur in significant numbers within the proposed extensions: dark-bellied brent geese *Branta bernicla bernicla* and dunlin *Calidris alpina*. In the five winter period 1986/87 to 1990/91, the average peak counts for the Swale as a whole were 2,850 dark-bellied brent geese (1.6% of the world population, 3.1% of the British wintering population) and 13,000 dunlin (3% of the British wintering population). The mudflats of the proposed extensions have, in recent years, supported over 400 dark-bellied brent geese and 900 dunlin.

The mudflats of the proposed extensions support smaller numbers of several other species of wintering migratory waterfowl, including oystercatcher *Haematopus ostralegus*, ringed plover *Charadrius hiaticula*, grey plover *Pluvialis squatarola*, curlew *Numenius arquata* and redshank *Tringa totanus*. These species are present in internationally or nationally important numbers within the Swale as a whole.

The Swale also qualifies under Article 4.2 by virtue of regularly supporting diverse assemblages of the wintering and breeding migratory waterfowl of lowland wet grassland and other estuarine habitats.

The grazing marshes of the proposed extensions support an assemblage of wintering species typical of the grazing marshes elsewhere within the Swale, including shelduck *Tadorna tadorna*, wigeon *Anas penelope*, teal *Anas crecca* and curlew *Numenius arquata*. These species are present in internationally or nationally important numbers within the Swale as a whole.

The grazing marshes also support a typical assemblage of breeding species, including shelduck *Tadorna tadorna*, mallard *Anas platyrhynchos*, moorhen *Gallinula chloropus*, coot *Fulica atra*, lapwing *Vanellus vanellus*, redshank *Tringa totanus*, reed warbler *Acrocephalus scirpaceus* and reed bunting *Emberiza schoeniclus*. Some of these species have restricted distributions in Britain because of habitat loss and degradation.

The grazing marshes of the proposed extensions also regularly support wintering, and occasionally breeding, short-eared owl *Asio flammeus* (a species listed under Annex 1 of the EC Birds Directive). During severe winter weather elsewhere, the Swale, including those areas within the proposed extensions, can assume even greater national and international importance as a cold weather refuge. Wildfowl and waders from many other areas arrive, attracted by the relatively mild climate, compared with continental European areas, and the abundant food resources available. The Swale SPA, including the proposed extensions, is part of the larger Thames estuary and contributes to its overall regional significance for birds in a European context.

SPA citation – LDS March 1993

Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitats: The Swale Ramsar site

The Swale Ramsar site is a wetland of international importance comprising intertidal mudflats, shellbeaches, saltmarshes and extensive grazing marshes. It provides breeding and winter habitats for important assemblages of wetland bird species, particularly wildfowl and waders. The proposed extensions to the Ramsar site include areas of intertidal mudflats and grazing marsh adjacent to the existing Swale Ramsar site and within The Swale Site of Special Scientific Interest. These areas are integral components of the complex of estuarine habitats composing the Swale.

The grazing marshes within the proposed extensions qualify under Criterion 2a of the Ramsar Convention by supporting a number of rare species of plants and animals. Nationally scarce plants include brackish water crowfoot *Ranunculus baudotii*, divided sedge *Carex divisa*, sea clover *Trifolium squamosum*, sea barley *Hordeum marinum* and soft hornwort *Ceratophyllum submersum*. Invertebrate records indicate that the grazing marshes support a rich wetland fauna, reflecting the complexity of habitats present. At least seven Red Data Book invertebrates have been recorded from Coldharbour, Iwade and Ridham Marshes, including an aquatic weevil *Bagous cylindrus*, a crane fly *Erioptera bivittata*, and a hoverfly *Lejops vittata*, listed as vulnerable; and a water bug *Micronecta minutissima*, a predatory rove beetle *Philonthus punctus*, a small dolichopodid fly *Campsicnemus magius* and a small chironomid fly *Elachiptera ruffrons*, listed as rare. Four of these species have not been recorded elsewhere in the Swale. A large number of notable and scarce wetland invertebrates also occur within the proposed extensions.

The Swale qualifies under Criterion 3a by virtue of regularly supporting over 20,000 waterfowl, with an average peak count of 57,600 birds for the five winter period 1986/87 to 1990/91. The proposed extensions contribute to this total.

The Swale qualifies under Criterion 3c by supporting, in winter, internationally important populations of four species of migratory waterfowl; and nationally important populations of a further thirteen species. These include internationally important numbers of dark-bellied brent geese *Branta bernicla bernicla*; and nationally important numbers of dunlin *Calidris alpina*. In the five winter period 1986/87 to 1990/91 the average peak counts for these species were 2,850 dark-bellied brent geese (1.6% of the world population, 3.1% of the British wintering population). The mudflats of the proposed extensions support significant numbers of these species, with over 400 dark-bellied brent geese and 900 dunlin being recorded in recent years.

The mudflats of the proposed extensions also support smaller numbers of several other species of wintering migratory waterfowl, including oystercatcher *Haematopus ostralegus*, ringed plover

Project Name Footpath Ramp ZF5 (Faversham Reach & Waterside Close Project)



Document Title Preliminary Ecological Appraisal

Charadrius hiaticula, grey plover *Pluvialis squatarola*, curlew *Numenius arquata* and redshank *Tringa totanus*. These species occur in internationally or nationally important numbers within the Swale as a whole.

The grazing marshes of the proposed extensions support an assemblage of wintering species typical of the grazing marshes elsewhere within the Swale. These include shelduck *Tadorna tadorna*, wigeon *Anas penelope*, teal *Anas crecca* and curlew *Numenius arquata*, all of which present in internationally or nationally important numbers within the Swale as a whole.

During severe winter weather elsewhere, the Swale, including those areas within the proposed extensions, can assume even greater national and international importance as a cold weather refuge. Wildfowl and waders from many other areas arrive, attracted by the relatively mild climate, compared with continental European areas, and the abundant food resources available.

The Swale Ramsar site, including the proposed extensions, is part of the larger Thames estuary and contributes to its overall regional significance for birds in an international context.

Ramsar citation (Montreux 1990 Criteria)
LDS March 1993

Appendix F - Qualifying Features for Designation of UK Sites

The Swale SSSI

COUNTY: KENT **SITE NAME:** THE SWALE

DISTRICT: CANTERBURY/SWALE

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended. Part of the site has been designated a National Nature Reserve under Section 16 of the National Parks and Access to the Countryside Act 1949 and part is a Local Nature Reserve under Section 21 of the National Park and Access to the Countryside Act 1949.

Local Planning Authorities: Canterbury City Council, Swale Borough Council

National Grid Reference: TR 000670 **Area:** 6568.45 (ha.) 16,230.58 (ac.)

Ordnance Survey Sheet 1:50,000: 178, 179 **1:10,000:** TQ 96, TQ 97 SE & SW, TR 06, TR 07 SE, SW, TR 16 NW

Date Notified (Under 1949 Act): 1968 **Date of Last Revision:** 1981

Date Notified (Under 1981 Act): 1984 **Date of Last Revision:** 1990

Other Information:

Parts of the site are listed in 'A Nature Conservation Review' D A Ratcliffe (ed) CUP 1979. The Royal Society for the Protection of Birds manage part of the site as a nature reserve. The site has been extended to include Coldharbour and Ridham Marshes, and an additional part of the Oaze. Most of the site is also designated under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention) and as a Special Protection Area under European Community Directive 79/409 on the Conservation of Wild Birds.

Reasons for Notification:

The Swale includes the largest remaining areas of freshwater grazing marsh in Kent and is representative of the estuarine habitats found on the north Kent coast. The habitats comprise chiefly mudflats, saltmarsh, and freshwater grazing marsh, the latter being intersected by extensive dykes and fleets. The area is particularly notable for the internationally important numbers of wintering and passage wildfowl and waders, and there are also important breeding populations of a number of bird species. Associated with the various constituent habitats of the site are outstanding assemblages of plants and invertebrates.

The mudflats of the Swale are extremely rich in invertebrates, over 350 species having been recorded. Some of these, such as the polychaete worm *Clymenella torquata* are known from nowhere else in Britain, while other more widespread species are present at high densities and provide food for the huge numbers of birds, especially waders, which use the Swale.

The saltmarshes are among the richest for plant life in Britain with for example particularly good representation of the saltmarsh-grasses *Puccinellia* and the glassworts *Salicornia*. Other abundant species include sea aster *Aster tripolium*, sea lavender *Limonium vulgare*, sea purslane *Halimione portulacoides* and common cord-grass *Spartina anglica* while less common plants include small cord-grass *Spartina maritima** and golden samphire *Inula crithmoides**. As well as providing feeding and roosting places for many birds, the saltmarshes are of entomological interest; for example, this is the habitat of the scarce ground lackey moth *Malacostoma castrensis**.

Also on the seaward side of the sea walls are smaller areas of other habitats. The harder substrates of shingle below high water mark in places support large mussel beds, which in turn attract different birds from those of the mudflats, such as turnstone *Arenaria interpres*. There are several areas of shell, or shell sand beach, notably at Shellness on Sheppey and at Castle Cote west of Seasalter.

These have an interesting calcareous flora with plants characteristic of both sand and shingle beaches: sea kale *Crambe maritima**, yellow horned-poppay *Glaucium flavum*, marram grass *Ammophila arenaria* and sea rocket *Cakile maritima* occur for example. Where undisturbed these beaches attract breeding ringed plover *Charadrius hiaticula* and little tern *Sterna albifrons*. The grazing marsh complexes, including seawalls, counterwalls, fleets, dykes, temporary runnels, etc. provide suitable conditions for a wide range of plants and animals. The grassland habitats range from the damp muddy areas near the dykes, where characteristic plants include divided sedge *Carex divisa** and small goosefoot *Chenopodium botryodes** to the dry seawalls and counterwalls which support several less-common in addition to many widespread plants. These less-common plants include the specially-protected hogs fennel *Peucedanum officinale*** and least lettuce *Lactuca saligna***, slender hare's-ear *Bupleurum tenuissimum**, sea clover *Trifolium squamosum** and sea barley *Hordeum marinum**, all of which are more abundant in the Thames estuary than elsewhere in Britain.

The more level grassland is dominated by a variety of grasses including foxtails *Alopecurus*, bents *Agrostis*, rye-grass *Lolium* and fescues *Festuca* with various herbs such as clovers *Trifolium*, and buttercups *Ranunculus* also present.

The flora of the dykes and fleets varies according to the salinity. Those nearest the sea tend to be most brackish, and generally have sea club-rush *Scirpus maritimus*, common reed *Phragmites australis* and fennel pondweed *Potamogeton pectinatus* as the most abundant species. In the fresher water further inland there is a greater variety of species and plants such as branched bur-reed *Sparganium erectum* and reed-mace *Typha latifolia* may become dominant. Plants associated with the dykes include beaked tasselweed *Ruppia maritima* and soft hornwort *Ceratophyllum submersum**. There is also a good invertebrate community with beetles, dragon and damselflies, and flies especially well represented.

Other less extensive habitats in the Swale include water-filled disused clay-pits, and small patches of scrub and woodland. These provide additional variety and interest to the site, and in some cases also support uncommon plants or animals.

The bird interest of the Swale is centred on the large numbers of waders and wildfowl which use the area in winter, and on autumn and spring migrations. Several species: wigeon *Anas penelope*, teal *Anas crecca* and grey plover *Pluvialis squatarola* regularly overwinter in numbers of international importance+. Others, including shoveler *Anas clypeata*, knot *Caladris canutus*, dunlin *Caladris alpina* and spotted redshank *Tringa erythropus* are regularly present in winter in nationally significant numbers+. Many of the birds use more than one habitat, some for example feed on the mudflats at low tide and then move up to roost on the saltmarsh or on fields inland of the sea wall. The commoner breeding dry-land birds include skylark *Alauda arvensis*, meadow pipit *Anthus pratensis* and yellow wagtail *Motacilla flava*, and among the wetland birds mallard *Anas platyrhynchos*, shelduck *Tadorna tadorna*, coot *Fulica atra*, moorhen *Gallinula chloropus*, lapwing *Vanellus vanellus* and redshank *Tringa totanus*. Scarcer breeding birds include teal *Anas crecca*, gadwall *Anas strepera*, *Anas clypeata* and pochard *Aythya ferina*. Garganey *Anas quercedula*, pintail *Anas acuta*, ruff *Philomachus pugnax* and black-tailed godwit *Limosa limosa* have bred, or attempted to do so in recent years.

+ *Wildfowl and Wader Counts* 1987--88, D G Salmon et al, Wildfowl Trust 1988.

* Species regarded as 'scarce' in Britain (recorded from 16--100 of the 10 x 10km squares in Britain).

** Species recorded as 'rare' in Britain (recorded from 1--15 10 x 10km squares) and listed in *British Red Data Books: 1. vascular Plants*, 2nd Ed F H Perring & L Farrell, RSNL 1983.