



**Dungeness, Romney Marsh and Rye Bay SSSI,  
East Sussex and Kent**

*Notification under section 28C of the Wildlife  
and Countryside Act 1981*

**Dungeness SSSI, Rye Harbour SSSI and Walland  
Marsh SSSI**

*Notifications under section 28D of the Wildlife  
and Countryside Act 1981*

## Contact points and further information

This notification package is issued by English Nature's Kent Team. Our address for correspondence is:

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Your contact point for enquiries relating to these notifications is Jessica Daish-Miller.

A second document (*Dungeness, Romney Marsh and Rye Bay SSSI - supporting information*) is available on request from the address above. This contains information and extracts from relevant documents that have been used in the decision to notify this SSSI under section 28C, and to issue notifications under section 28D in relation to parts of the previously notified SSSIs which are not considered to be of special interest.

The date of notification of Dungeness, Romney Marsh and Rye Bay SSSI under section 28C is **16 August 2006**.

The date of the notifications that parts of the previously notified Dungeness SSSI, Rye Harbour SSSI and Walland Marsh SSSI are not considered to be of special interest is **16 August 2006**.

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## 1. Summary

- 1.1 Dungeness, Romney Marsh and Rye Bay is a nationally important site comprising a diverse range of habitats which exist today because coastal processes have formed and continue to shape a barrier of extensive shingle beaches and sand dunes. The site contains the largest and most diverse area of shingle beach in Britain, with low lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually in-filled by sedimentation, and then reclaimed on a piecemeal basis by man. Today this area still contains relict areas of saltmarsh (the largest areas of this habitat in East Sussex) and an extensive network of ditches which drain areas of grazing marsh, arable farmland and reedbed. Human activities have further modified the site, resulting in the creation of extensive areas of open water due to gravel extraction. This highly unusual coastal landscape has varied soils and shingle deposits which help to explain the way in which Romney Marsh and Rye Bay were formed, and may evolve in the future. Eight Sites of Special Scientific Interest have previously been designated in the Romney Marsh and Rye Bay area, supporting many nationally important habitats and species. A number of the interest features occur across the boundaries of these SSSIs and in areas outside of them, including the coastal geomorphology, saltmarshes, breeding, wintering and passage birds, lowland ditch systems, and plant and invertebrate assemblages. The notification of Dungeness, Romney Marsh and Rye Bay SSSI allows the management of these features to be properly considered in the context of the whole coastal and grazing marsh systems.
- 1.2 This package explains why Dungeness, Romney Marsh and Rye Bay is notified by English Nature as a Site of Special Scientific Interest (SSSI). The package also explains why English Nature is of the opinion that parts of the previously notified SSSIs are not of special interest.
- 1.3 Dungeness, Romney Marsh and Rye Bay is a nationally important site by reason of a diverse range of biological and geological features, including the coastal geomorphology of Dungeness and Rye Harbour. The geomorphological processes (and other factors) have led to the formation of a coastal landscape supporting the following nationally important habitats: saltmarsh, sand dunes, vegetated shingle, saline lagoons, standing waters, lowland ditch systems, and basin fens. These habitats and others within the site support the following nationally important species interests: populations of four vascular plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended); an assemblage of Schedule 8, nationally rare and nationally scarce vascular plants; populations of the vulnerable Warne's thread-moss *Bryum warneum*; populations of water voles *Arvicola terrestris*; an assemblage of breeding birds associated with shingle beaches and saltmarsh, lowland damp grasslands, lowland open waters and their margins, and scrub; breeding numbers of 16 species of bird; assemblage of over 20,000 waterfowl in the non-breeding season; wintering numbers of 17 species of bird and three species during passage periods; metapopulations of great crested newts *Triturus cristatus*; species and subspecies of endemic invertebrates; populations of two invertebrate species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); populations of ten endangered,

vulnerable and rare invertebrate species; assemblages of invertebrates occurring on 'dry' coastal habitats; and assemblages of wetland invertebrates.

- 1.4 Previously, eight biological and geological SSSIs have been notified covering the shingle foreland, sand dune, saltmarsh, open water and grazing marsh habitats in the Dungeness, Romney Marsh and Rye Bay area. These eight SSSIs are Dungeness SSSI (last notified in 1992), North Lade SSSI (notified in 1992), Romney Warren SSSI (last notified in 1987), Walland Marsh SSSI (last notified in 1986), Cheyne Court SSSI (notified in 2000), Rye Harbour SSSI (last notified in 1988), Camber Sands and Rye Saltings SSSI (last notified in 1989) and Pett Level SSSI (last notified in 1989). The Dungeness, Romney Marsh and Rye Bay SSSI includes all or parts of these eight SSSIs, and also enlarges the area notified to include adjacent areas of active and 'fossil' geomorphology, grazing marsh, freshwater wetlands, sand dunes, saltmarsh and vegetated shingle.
- 1.5 Thirty-nine small areas (totalling 15.74 ha) within three of the previously notified SSSIs are not considered to be of special interest. These areas are within the land previously notified as Dungeness SSSI (five areas), Rye Harbour SSSI (seven areas) and Walland Marsh SSSI (24 areas).
- 1.6 The annexes to this package comprise the legal papers that detail the interest and the management required to maintain that interest. You have a right to make representations or objections to the notification under section 28C and those under section 28D. Part 3 of this package explains how to do this.
- 1.7 English Nature's consent is required by owners and occupiers before any of the operations listed in *Annex 3* can be carried out. We will work closely with owners and managers, as well as other bodies, to ensure that existing operations and new works that are not considered likely to damage the special features of the SSSI can be carried out.

## **2. The legal background**

- 2.1 North Lade SSSI is enlarged under section 28C of the Wildlife and Countryside Act 1981, as inserted by Schedule 9 to the Countryside and Rights of Way Act 2000, and is now known as Dungeness, Romney Marsh and Rye Bay SSSI. Dungeness, Romney Marsh and Rye Bay SSSI includes land within and extending beyond North Lade SSSI, as previously notified in 1992, and the boundary incorporates all or parts of the seven other previously notified SSSIs listed in section 1.4 (above). With effect from the date of this notification under section 28C of the Wildlife and Countryside Act 1981, the previous notification of North Lade SSSI given in 1988 ceases to have effect (section 28C(5) of the Wildlife and Countryside Act 1981). The previous notifications of the other seven previously notified SSSIs listed in section 1.4 (above) do not cease to have effect from the date of this notification but, subject to confirmation of this notification under Section 28(5) of the Wildlife and Countryside Act 1981, English Nature will treat those previous notifications as though they do cease to have effect.
- 2.2 Parts of three of the previously notified SSSIs (Dungeness SSSI, Rye Harbour SSSI and Walland Marsh SSSI) which in the opinion of English Nature are not of special interest are notified as such under section 28D of the Wildlife and Countryside Act 1981, as inserted by Schedule 9 to the Countryside and Rights of Way Act 2000.

Removal of these areas from the SSSIs is not effective until the date of confirmation of the notifications under section 28D(5).

- 2.3 Part 8 of this notification package contains the following legal documents, required by sections 28C and 28D of the Wildlife and Countryside Act 1981:
- a citation detailing the reasons for notification under section 28C (*Annex 1*)
  - a statement of English Nature's views on the management of the SSSI (*Annex 2*)
  - a list of operations requiring English Nature's consent (*Annex 3*)
  - maps identifying the land subject to the notifications under Section 28C and Section 28D (*Annex 4*).
- 2.4 The notification of the SSSI under section 28C has several effects. The key ones can be summarised as follows:
- owners and occupiers must give English Nature notice before carrying out, causing or permitting to be carried out any of the activities in the list of operations at *Annex 3*;
  - owners of land included in the SSSI have a legal obligation to notify English Nature within 28 days if the ownership or occupancy of the land changes;
  - it is an offence for any person intentionally or recklessly to destroy or damage the special features of the SSSI or to disturb any of the fauna;
  - other public bodies must consult English Nature before carrying out or authorising any works that may damage the SSSI.
- 2.5 The notifications under section 28D of parts of the sites previously notified, which in the opinion of English Nature are not of special interest, have several effects. The key ones can be summarised as follows:
- They provide the opportunity for you to make representations or objections to the notification of these parts as not being of special interest.
  - They do not take effect until confirmed by English Nature (with or without modification), and until such time these parts of the sites remain subject to the effects of the previous notifications (the same effects as set out in 2.4 above).
  - If confirmed (with or without modification), the land subject to the section 28D notifications shall no longer be part of the previously notified SSSIs and therefore no longer subject to the effects set out in 2.4 above.

If you require any further information or advice on how these notifications affect you, please do not hesitate to contact English Nature at the address shown at the beginning of this notification package.

### **3. Making representations**

- 3.1 You have a legal right to make objections and representations about these notifications. Any representations or objections should be made in writing by **18 December 2006** to English Nature's Kent Team at the address shown on page 2. You may wish to seek legal or independent advice and your representative may wish to write to us on your behalf.

- 3.2 The Kent Team will consider your objections or representations and will try to resolve them. Any unresolved objections or representations will be considered by the Council of English Nature<sup>1</sup> within nine months of these notifications. If you wish to emphasise any of your objections or representations to Council in person, you should tell us when you write to us. You will then be advised of the date and location of the Council meeting. Following consideration of objections and representations, the Council of English Nature may confirm or withdraw all or part of these notifications.
- 3.3 English Nature has a policy of openness, which reflects our obligations under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. This legislation provides a legal right of access to information held by public bodies. This means that we will provide information on how we make our decisions on SSSIs to any person on request. This includes details of objections and representations received. We will assume, therefore, that your representation or objection can be made publicly available unless you indicate with clear and valid reasons which (if any) part(s) of these you wish to be excluded from this arrangement. However, you should be aware that the requirements of the legislation may mean that we cannot comply with your request that this information be withheld. We do, however, respect people's privacy and will take all reasonable steps to consult you before reaching a decision on disclosure of the information.

As an individual or organisation with an interest in Dungeness, Romney Marsh and Rye Bay SSSI, your information will be stored and processed on a computer database that will be operated within the Data Protection Act 1998. This Act gives individuals the right to know what data we hold on them, how we use it and to which third parties it is disclosed. For the purposes of the Data Protection Act, the data controller is English Nature, Northminster House, Peterborough, PE1 1UA.

#### **4. Reasons for notification of the SSSI under section 28C**

- 4.1 Dungeness, Romney Marsh and Rye Bay SSSI is nationally important by reason of the following features (a more detailed description is given in the citation at *Annex 1* to this package):

- **Coastal geomorphology**  
Dungeness and Rye Harbour are of importance for the development and evolution of the largest shingle cusped foreland (low-lying triangular foreland) in Britain, with its associated fringing marsh and peat deposits.
- **Saltmarshes**  
The saltmarshes of the River Rother show a full succession from cord-grass *Spartina* spp. saltmarsh and pioneer marsh, through low-mid and mid-upper marsh communities, to drift line and upper marsh swamp. Upper saltmarsh communities are particularly well represented. The Rother contains the largest area of saltmarsh in East Sussex.

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<sup>1</sup> From October 2006, English Nature (along with much of the Rural Development Service and part of the Countryside Agency) will be succeeded by Natural England – a new organisation being established under the Natural Environment and Rural Communities Act 2006. Natural England, like English Nature, will be a non-departmental public body, and its remit will include the full range of English Nature's statutory duties and powers. It is therefore expected that Natural England will consider whether or not to confirm these notifications.

- **Sand dunes**  
There are three sand dune systems in the SSSI at Camber, Romney Warren and Greatstone, representing different structural types of sand dune and sand dune formation associated with the shingle structures of Dungeness and Rye Harbour. These include the full range of sand dune vegetation communities, from strandline, foredune and mobile dune, to semi-fixed dune, fixed dune grassland and dune scrub.
- **Vegetated shingle**  
The SSSI includes two of the largest shingle structures in the British Isles. Dungeness and Rye Harbour support a range of vegetated shingle communities and transitions between them. These communities reflect the geomorphological patterns of the shingle structure, reflecting both the time since deposition and the particle size and matrix of finer material present. Dungeness in particular is unusually diverse in its vegetation, due to the unusually long distance over which the shingle extends inland.
- **Saline lagoons**  
There are good examples of natural/semi-natural percolation lagoons at Lydd Ranges, supporting the lagoonal specialist mud-snail *Ventrosia ventrosa* and demonstrating landward transitions to vegetated shingle habitats and to the shingle ridge geomorphology of Dungeness.
- **Standing waters**  
The natural freshwater pits amongst the extensive shingle ridges of Dungeness are unique in the British Isles. This is true of both the geomorphology of the habitats and the communities of plants and animals that they support. The pits display various stages of the succession from open water through to fen vegetation.
- **Lowland ditch systems**  
The extensive systems of ditches and dykes (such as those which drain Walland Marsh and Pett Level) are important examples of lowland, slow-moving and eutrophic (nutrient-rich) waters. There is a brackish influence near the sea and also inland in the large ditches or where peat deposits, which leach salt, lie close to the surface. The majority of the ditches have high plant species richness.
- **Basin fens**  
A number of the natural freshwater pits at Dungeness have reached a stage in the succession from open water to fen where they have little or no open water remaining. They are now typical basin fens with floating rafts of vegetation. The pits contain a range of fen types from nutrient-rich to nutrient-poor fen, including common reed *Phragmites australis* swamps and tall-herb fens dominated by marsh cinquefoil *Potentilla palustris* and bottle sedge *Carex rostrata*.

- Populations of four vascular plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended)**

The SSSI contains populations of four Schedule 8 plant species: Jersey cudweed *Gnaphalium luteoalbum* grows on the margins of gravel pits in Dungeness RSPB Reserve; least lettuce *Lactuca saligna* occurs in vegetated shingle at Rye Harbour Local Nature Reserve (LNR); there is a small colony of the early spider-orchid *Ophrys sphegodes* growing on an area of disturbed shingle, where sand has been spread over the gravel, adjacent to the nuclear power stations at Dungeness; and there are colonies of lizard orchids *Himantoglossum hircinum* (details about the locations of these colonies are confidential due to the threat posed by illegal plant collectors).
- Assemblage of Schedule 8, nationally rare and nationally scarce vascular plants**

The extensive areas of natural and semi-natural habitats, including shingle beaches, sand dunes, saltmarsh, grazing marsh, waterbodies and fens, support a large assemblage of Schedule 8, nationally rare and nationally scarce vascular plant species.
- Populations of the vulnerable Warne's thread-moss**

Warne's thread-moss *Bryum warneum* occurs on wet sand beside the northern margin of a large freshwater-filled gravel pit in Dungeness RSPB Reserve. Several smaller satellite colonies have become established beside small pools to the north of the main colony.
- Populations of water voles**

The extensive network of ditches, some in association with areas of wet reedbed, provides habitat for large populations of water voles *Arvicola terrestris*. The SSSI contains the core areas of an extensive distribution of this species in the Romney Marsh and Rye Bay area.
- Assemblage of breeding birds associated with shingle beaches and saltmarsh, lowland damp grasslands, lowland open waters and their margins, and scrub**

The SSSI is regularly used by at least 40 breeding bird species typical of shingle beaches and saltmarshes, lowland damp grasslands, lowland open waters and their margins, and scrub. Whilst many breeding birds use habitats throughout the SSSI, there are four areas within the site that support particular concentrations of breeding birds associated with different combinations of habitats: Dungeness (particularly the RSPB Reserve); Rye Harbour LNR; Pett Level (particularly the Pannel Valley); and Cheyne Court.
- Breeding numbers of 16 species of bird**

As well as the nationally important assemblage of breeding birds described above, the SSSI is also used by nationally important numbers of 16 individual species of bird. The majority of these species are waterfowl, gulls and terns, but the site also supports nationally important breeding numbers of two passerine species: Cetti's warbler *Cettia cetti* and bearded tit *Panurus biarmicus*. These species mostly breed within the four areas listed above for the breeding bird assemblage.

- **Assemblage of over 20,000 waterfowl in the non-breeding season**  
The SSSI regularly supports an assemblage of over 20,000 waterfowl in the non-breeding season, comprising more than 60 species. As well as the waterbird species described below, which individually occur in nationally important numbers in winter or on passage, this assemblage regularly includes large numbers (over 12,000 individuals) of lapwings *Vanellus vanellus*.
- **Wintering numbers of 17 species of bird and three species during passage periods**  
Seventeen species of bird regularly winter in nationally important numbers in the SSSI. The majority of these species are wildfowl and waders but the site also supports nationally important wintering numbers of bittern *Botaurus stellaris* and hen harrier *Circus cyaneus*. Dungeness, Romney Marsh and Rye Bay SSSI also supports nationally important numbers of whimbrel *Numenius phaeopus* during spring passage, and common sandpiper *Actitis hypoleucos* and aquatic warbler *Acrocephalus paludicola* during autumn passage.
- **Metapopulations of great crested newts**  
The particular combination and distribution of aquatic and terrestrial habitats in Dungeness, Romney Marsh and Rye Bay SSSI provide exceptional breeding, foraging and hibernation conditions for great crested newts *Triturus cristatus*. The SSSI supports three metapopulations of great crested newts, of which two are in the Dungeness area and one is at Romney Warren.
- **Endemic species and subspecies of invertebrates**  
Dungeness supports an ‘endemic pool’ of species and subspecies that are not known from any other sites in the world. This includes the leafhopper *Aphrodes duffieldi*, the grass-fly *Polyodaspis sulcicollis*, and subspecies of the pygmy footman moth *Eilema pygmaeola pallifrons* and grass egg moth *Lasiocampa trifolii flava*.
- **Populations of two invertebrate species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)**  
The SSSI contains populations of two Schedule 5 invertebrate species. The range of shallow, well-vegetated waterbodies provide ideal conditions for medicinal leeches *Hirudo medicinalis*. The Sussex emerald moth *Thalera fimbrialis* is restricted as a British resident to Dungeness, where larval populations of the species occur mostly on areas of disturbed shingle within and around the perimeter fence encircling Dungeness Nuclear Power Stations, and at Lydd-on-Sea.
- **Populations of ten endangered, vulnerable and rare invertebrate species**  
The SSSI supports nationally important populations of ten species of invertebrate that have been listed (or provisionally listed) as endangered, vulnerable or rare in the Red Data Books for Great Britain. Seven of these species (three moths, three spiders and a flea beetle) are associated with the shingle beaches, whilst the marsh mallow moth *Hydraecia osseola hucherardi* occurs on grazing marshes, the ground beetle *Omophron limbatum* is found in damp sand at the margins of fresh waterbodies, and the click beetle *Melanotus punctolineatus* breeds in areas of sparsely vegetated coastal dune.

- **Assemblages of invertebrates occurring on ‘dry’ coastal habitats**  
The shingle beaches, sand dunes, stabilised sand deposits and dry grasslands in the SSSI support rich assemblages of Red Data Book and nationally scarce invertebrates. These include assemblages chiefly associated with early successional coastal shingle and dunes, herb-rich neutral grassland and early successional calcareous conditions.
- **Assemblages of wetland invertebrates**  
Dungeness, Romney Marsh and Rye Bay is permeated by a complex network of wetland habitats including saltmarsh, natural freshwater pits, fens, ponds, gravel pits, and ditches. They support a number of assemblages of Red Data Book and nationally scarce invertebrates; particularly assemblages of species chiefly associated with the following five types: rich fen, vegetated water margins, open water on disturbed mineral sediments (as well as species representative of water’s edge habitats, such as damp sand and silt), upper saltmarsh (including species associated with transitional saltmarsh, freshwater seepages over saltmarsh, brackish lagoons and brackish ditches) and, to a lesser extent, tussock fen with moss edges.

## **5. Reasons for the notifications under section 28D (denotification)**

- 5.1 In the opinion of English Nature, small parts of three of the previously notified SSSIs (see section 2.2, above) are not of special interest. Accordingly these areas are subject to three notifications (one given in respect of each of the previously notified SSSIs) under section 28D, the effects of which are described in section 2.5 (above). In total, there are 39 such areas, totalling 15.74 ha, affecting parts of the land previously notified as Dungeness SSSI, Rye Harbour SSSI and Walland Marsh SSSI, as described below (and as shown on the maps at *Annex 4*).
- 5.2 Seven areas previously notified as part of Dungeness SSSI (as notified in 1992) are not considered to be of special interest. These include four areas where all or parts of the buildings or plots of residential properties were included in the SSSI boundary and one area where a small car park was included, all as a result of historic cartographical errors. The special interest (if any) of two areas in Lydd Ranges has been destroyed as a result of lawful operations (consented developments).
- 5.3 Eight areas previously notified as part of Rye Harbour SSSI (as notified in 1988) are not considered to be of special interest. These include two areas where buildings and their plots were included in the SSSI and one area where a concrete hard-standing was included as a result of historic cartographical errors. There is also one area which has been developed as a result of a lawful operation (industrial development with planning permission) and is not considered to be of special interest. In a further four locations the boundary has been redrawn to features, such as fences and track edges, which it did not follow previously. This results in the exclusion of four small areas that are not considered to be of special interest.
- 5.4 24 areas previously notified as part of Walland Marsh SSSI (as notified in 1986) are not considered to be of special interest. These include 21 areas where the following were included in the SSSI as a result of historic cartographical errors:
- all or parts of the buildings and their plots of residential and agricultural properties (13 cases);
  - a section of road (one case);

- sections of railway track-bed (six cases); and
- part of an arable field (one case).

In a further two locations the boundary has been redrawn to features, such as fences and track edges, which it did not follow previously as a result of historic cartographical errors. This results in the exclusion of two small areas that are not considered to be of special interest. In the one remaining area, the boundary has been redrawn to follow straight lines between measurable points in an area where there is no readily identifiable feature on maps or on the ground. This results in the exclusion of a sliver of land that is not considered to be of special interest.

## **6. Site boundaries and relationships with other SSSIs**

- 6.1 The boundary has been drawn to include land supporting the features of biological and geomorphological interest, linked to the formation of Dungeness foreland, Romney Marsh and their associated habitats. It includes all or parts of the eight previously notified SSSIs in the Dungeness, Romney Marsh and Rye Bay area (see section 1.4), as well as other areas of intertidal, subtidal and terrestrial habitat that support the features of special interest or which are necessary to ensure their long-term sustainability.
- 6.2 As a general principle, where the boundary follows a road, the inner edge of the road has been used and the road has therefore been excluded from the site. Where the boundary is drawn to a ditch or drain, the outer bank has been used, therefore including the ditch or drain in the site. Where there is no mapped feature that can be used to delineate the extent of an interest feature, the boundary has been drawn as a straight line from one point distinguishable on the ground to another.
- 6.3 In the marsh interface landscape areas landward of the exposed shingle (such as on Dengemarsh, Broomhill Level and around Scotney Court), the peatland landscape at Cheyne Court, and in areas with no known geomorphological interest, the boundary has been drawn to exclude major roads, railways and permanent buildings. However, on the exposed shingle of the foreland and where bridges and other structures cross intertidal, subtidal and other wetland habitats, the boundary has not been drawn to exclude these man-made structures. Annotations that appear on the boundary maps (at *Annex 4*) confirm that the site excludes permanent structures such as buildings, roads, bridges, culverts, slipways, jetties and houseboats. However, the site does include any exposed bankside, intertidal, subtidal or other wetland habitats, and surface or buried shingle, sand, peat or other soils, beneath the aforementioned structures.
- 6.4 The seaward boundary in the south-west of the Dungeness, Romney Marsh and Rye Bay SSSI directly abuts the north-eastern end of Hastings Cliffs to Pett Beach SSSI. The seaward boundary then follows the Lowest Astronomical Tide (LAT) north-east as far as the River Rother estuary. The SSSI boundary crosses the mouth of the Rother at the East Sussex administrative county boundary. The boundary then continues to follow the LAT; firstly east along Camber Sands, Broomhill Sands and Lydd Ranges, before rounding Dungeness foreland itself, and continuing north along Lade Sands as far as the groyne at national grid reference TR08922669, where it cuts inland to encompass the sand dune habitats at Littlestone Golf Course in the north-east of the SSSI.

- 6.5 The SSSI boundary excludes the major buildings and hardstand areas associated with the power stations and transformer station in the south-east of the SSSI at Dungeness. It also excludes all land within the power stations' inner security fence, with the exception of a section between the security fences along the northern perimeter of Dungeness 'A' power station.
- 6.6 In the area around Littlestone Golf Course in the north-east of the site, there are several outlying sections of the SSSI, including Romney Warren ponds and several fields containing buried geomorphological interest. These include the Rugby Club Camp north of the buildings on Coast Drive and various fields on either side of Dymchurch Road (the A259), as far south east as The Warren Inn.
- 6.7 Turning back to the south, the landward boundary of the SSSI follows the sea wall, seaward boundaries of properties and the coast road (including Greatstone Dunes), south to The Pilot public house. An area of shingle adjacent to Lade Fort is included. The boundary then returns north along the Romney, Hythe and Dymchurch Railway and the western limits of properties in Lade and Greatstone. The gravel pit west of Lade is excluded. North of Greatstone Primary School, the boundary turns to the west inland. It then follows ditches (including the Dengemarsh Sewer) and fence lines around land that is of importance primarily for its geomorphology around Lydd Airport and on Dengemarsh, until it reaches Dengemarsh Road between Brickwall Farmhouse and Dengemarsh Farm.
- 6.8 The boundary follows Dengemarsh Road north to the southern edge of Lydd before turning west to include Lydd Ranges and the waterbodies at Lydd Watersports. Parts of the northern, built-up end of Lydd Ranges, and Lydd town are excluded. The boundary continues north-east, following the western boundaries of properties on the western edge of Lydd, before joining Romney Road. An area of vegetated shingle and buried geomorphology at East Ripe, around the entrance road to Lydd Airport, is also included.
- 6.9 From Romney Road, the boundary follows Kemp's Hill Petty Sewer and Prospect Petty Sewer to Caldecot Lane, which it then follows south to Dennes Lane before turning north to Horsebones Bridge. The boundary then turns south-west and follows a number of tracks, ditches and other features, including the Tore Wall, and Wainway Petty Sewer, towards East Guldeford Level. This section of the boundary encompasses a large area of buried geomorphological interest and waterbodies north of Lydd and around Scotney Court.
- 6.10 Sections of Walland Marsh around East Guldeford Level, Cheyne Court, Fairfield, Snargate, The Dowels and Warehorne are included, and the boundary around these areas is drawn to encompass grazing marsh areas that are known to support important botanical, invertebrate, and breeding and wintering bird interests. The boundary also encompasses areas of known geomorphological interest, such as the peatland landscape around Cheyne Court and the marsh interface deposits of East Guldeford Level. Where a grazing marsh ditch contains botanical or invertebrate interests, as far as possible, the land either side of that ditch is included.
- 6.11 To the east of Cheyne Court, the SSSI boundary includes a small reservoir at Wheelsgate, just to the south-west of Old Romney.

- 6.12 Part of the Royal Military Canal and the entire River Rother upstream to Scotts Float Sluice are included within the site. As far as possible, a whole system approach has been taken with the saltmarsh habitats of the Rother estuary and the boundary here follows sea walls, jetties and other physical features. It includes the subtidal channel of the estuary. Camber Road has been used as a landward boundary for Camber Dunes, and Northpoint Pit and Camber Pits are included in the site.
- 6.13 The boundary at Rye Harbour and at Pett Level has been drawn according to the same principles as elsewhere in the SSSI, encompassing shingle and grazing marsh habitat that contains special interest, as well as surface and buried geomorphological interests. The north-eastern boundary of the Rye Harbour section follows the south-western extent of residential and industrial properties on the western bank of the Rother. It then follows the River Brede, ditches, fences and Morlais Ridge south, going on to include areas of exposed and buried shingle to the north-east of Winchelsea Beach. The caravan sites at Dogs Hill are included.
- 6.14 The boundary continues around Pett Level and Pannel Valley following drains, the Dimsdale Sewer, the Royal Military Canal, field boundaries and finally Pett Level Road to the north-eastern point of Hastings Cliff to Pett Beach SSSI. Two outlying sections are included adjacent to Pett Level, at Pewis Marsh, Winchelsea, and adjacent to Chickhill Bridge, Cliff End.
- 6.15 Further clarification of the precise location of the boundary can be obtained from English Nature's Kent Team at the address on page 2.
- 6.16 The total area of the site is 9,137.06 ha.
- 6.17 Dungeness, Romney Marsh and Rye Bay SSSI directly abuts Hastings Cliffs to Pett Beach SSSI, which is of special interest for the geology of its cliffs and its habitats, including vegetated sea cliffs and vegetated shingle beach. Winchelsea Cutting SSSI approximately 100 metres to the east of the Pewis Marsh part of the Dungeness, Romney Marsh and Rye Bay SSSI at Pett Level. Houghton Green Cliff SSSI is approximately 10 metres west of the Dungeness, Romney Marsh and Rye Bay SSSI boundary adjacent to the River Rother near Scotts Float. Both of these sites are solely of geological interest and have no discernable relationship to the geomorphological system of Dungeness and Rye Harbour.

## **7. Management of the SSSI**

- 7.1 The notification under section 28C includes at *Annex 2* a statement of the management that English Nature considers is needed to conserve and enhance the features of special interest. Different management may be appropriate in different parts of the site and this statement is not intended to detail the exact requirements at specific locations. The statement is intended to explain how we can work with and support owners and managers in continuing to achieve positive management of the SSSI.

- 7.2 The notification under section 28C also includes a list of the operations requiring English Nature's consent at *Annex 3*. Some of the operations may already be taking place and where they do not cause any damage they will be given consent. We will work with landowners and managers to agree lists of such existing and planned activities, which can be approved.
- 7.3 Where an operation has been granted a consent, licence or permission from another public body a separate consent will not generally be required from English Nature. However, other public bodies are required to consult English Nature before such consents, licences or permissions are issued.
- 7.4 In particular, we recognise the important roles of the owners and managers of the land in managing this site. We will work with them to develop means to secure the sustainable management of Dungeness, Romney Marsh and Rye Bay SSSI.

## **8. Supporting information**

- 8.1 The detailed information, which has been used to assess the importance of this SSSI, is available on request from the address on page 2 of this paper.

## **9. Legal documents**

- 9.1 Attached at *Annexes 1 - 4* are the legal documents which are required by sections 28C and 28D of the Wildlife and Countryside Act 1981.

## *Annex 1*

### **Citation**

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification package

**Site name:** Dungeness, Romney Marsh and Rye Bay **County:** East Sussex, Kent

**District:** Ashford, Rother, Shepway

**Status:** Site of Special Scientific Interest (SSSI) notified under section 28C of the Wildlife and Countryside Act 1981, as inserted by Schedule 9 to the Countryside & Rights of Way Act 2000.

**Local Planning Authority:** Ashford Borough Council, East Sussex County Council, Kent County Council, Rother District Council, Shepway District Council

**National grid reference:** TR069201 **Area:** 9,137.06 ha

**Ordnance Survey sheets:** **1:50,000:** 189, 199 **1:10,000:** TQ81NE, SE; TQ91NE, NW, SW; TQ92NE, NW, SE, SW; TQ93SE; TR01NE, NW; TR02NE, SE, SW; TR03SW

**Notification date:** 16 August 2006

### Reasons for Notification:

Dungeness, Romney Marsh and Rye Bay is a nationally important site by reason of a diverse range of biological and geological features, specifically the coastal geomorphology of Dungeness and Rye Harbour and the following nationally important habitats: saltmarsh, sand dunes, vegetated shingle, saline lagoons, standing waters, lowland ditch systems, and basin fens. These habitats and others within the site support the following nationally important species interests: populations of four vascular plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended); an assemblage of Schedule 8, nationally rare and nationally scarce vascular plants; populations of the vulnerable Warne's thread-moss *Bryum warneum*; populations of water voles *Arvicola terrestris*; an assemblage of breeding birds associated with shingle beaches and saltmarsh, lowland damp grasslands, lowland open waters and their margins, and scrub; breeding numbers of 16 species of bird; assemblage of over 20,000 waterfowl in the non-breeding season; wintering numbers of 17 species of bird and three species during passage periods; metapopulations of great crested newts *Triturus cristatus*; endemic species and subspecies of invertebrates; populations of two invertebrate species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); populations of ten endangered, vulnerable and rare invertebrate species; assemblages of invertebrates occurring on 'dry' coastal habitats; and assemblages of wetland invertebrates.

### General description:

Dungeness, Romney Marsh and Rye Bay is a nationally important site with a diverse coastal landscape comprising a number of habitats which appear to be unrelated to each other. However, all of them exist today because coastal processes have formed and continue to shape a barrier of extensive shingle beaches and sand dunes across an area of intertidal mud and sand flats. The site contains the largest and most diverse area of shingle beach in Britain, with low lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually in-filled by sedimentation, and then reclaimed on a piecemeal basis by man. Today this area still contains relict areas of saltmarsh (the largest areas of this habitat in East Sussex) and an extensive network of ditches which drain areas of grazing marsh, arable farmland and reedbed. Human activities have further modified the site, resulting in the creation of extensive areas of open water due to gravel extraction. This highly unusual coastal landscape has varied soils and shingle deposits which help to explain the way in which Romney Marsh and Rye Bay were formed, and may evolve in the future.

## Coastal geomorphology

Dungeness and Rye Harbour comprise the largest cusped foreland (a low-lying triangular foreland) in Britain and form part of a system of barrier beaches that can be traced 40 km from Fairlight to Hythe. The foreland represents some 5,000 years of coastal evolution and environmental change, which are well documented through both geological study and historical records. The important features include the eroding and accreting coastline, exposed shingle ridges, buried shingle ridges, cusped foreland (ness) development and associated sediments, such as marsh interface deposits and peat. The major phases of development of the foreland are represented in a series of morphological and sedimentological zones each of which provide distinct and critical evidence.

The surface and subsurface shingle ridges are dominated by flint. The ridges can be directly related to the development of the barrier beach system, formation of which probably began to the west, extending and evolving through a series of beach recurves, and the destruction and rebuilding of barrier beaches. The surface ridges evident today provide only one element of the evidence for the foreland development. The subsurface, or buried, ridges are important as they allow mapping of the foreland evolution. Finer grained material (including peat deposits) occurs between the barrier beaches, representing backwater environments. The presence of palaeo-environmental information from these deposits allows for detailed interpretation of the environmental conditions at the time of deposition. Dating of the deposits allows for a chronology of coastal evolution to be developed. Interpretation of the coastal and environmental changes at the site relies heavily on the relationship of the shingle ridges and associated deposits. The lateral and vertical variations in the deposits, and the ability to correlate and date the backwater and shingle ridge sequences is a key factor in furthering our understanding of the foreland development.

The continuing evolution of the foreland is itself of interest. The site is responding to a variety of influences including reduction in sediment supply, coastal defence works, recycling for beach management, training walls at Rye Harbour and sea-level rise, including that caused by climate change. However, despite these influences the site continues to evolve, and understanding the ongoing evolution, including comparison to historical changes and the influence of human activity, is a key element of the interest. In this context the site is one of a suite of five south-west facing beach systems along the coast of the English Channel which all show contrasting characteristics in relation to sediment supply, erosion and orientation to the dominant wave direction.

## Saltmarsh

The saltmarshes in the estuary of the River Rother show a complete succession from cord-grass *Spartina* spp. saltmarsh and pioneer marsh of glassworts *Salicornia* spp. and annual sea-blite *Suaeda maritima*, through low-mid and mid-upper marsh communities, to a drift line dominated by common couch *Elytrigia repens* and upper marsh common reed *Phragmites australis* swamp. Downstream of the Monk Bretton Bridge in Rye, the site supports higher saltmarsh communities on raised areas adjacent to the river, dominated by common saltmarsh-grass *Puccinellia maritima* and, where the saltmarsh is grazed, red fescue *Festuca rubra*. The nationally scarce sea-heath *Frankenia laevis* occurs in parts of the upper saltmarsh. Low-mid marsh communities of common saltmarsh-grass and sea-purslane *Atriplex portulacoides*, with sea wormwood *Seriphidium maritimum* and sea aster *Aster tripolium*, occupy the inner areas of the marsh. In the immediate vicinity of Rye Harbour, there is a pure stand of sea-purslane. The Rother upstream of the bridge is canalised and there are only narrow strips of saltmarsh habitat along the flood banks. These areas are characterised by the low-mid marsh sea-purslane saltmarsh community, although the sea couch *Elytrigia atherica* drift line community is also represented.

## Sand dunes

The site includes three sand dune systems at Camber, Romney Warren and Greatstone, representing different structural types of sand dune and sand dune formation associated with the shingle structures of Dungeness and Rye Harbour. Camber Sands is a ness/cusped foreland dune system that has developed over a series of shingle ridges radiating from its eastern end. The system

supports a typical successional sequence of dune habitats. The foredune vegetation contains a classic sequence of sand couch *Elytrigia juncea* dune and marram *Ammophila arenaria* dune with sand couch and red fescue *Festuca rubra*. The foredune also supports sea buckthorn *Hippophae rhamnoides* scrub, although some of this has been planted as a stabilisation measure. Further from the sea, the semi-fixed marram vegetation leads into fixed dune grassland. Locally this includes small patches of more lichen-rich open dune vegetation. In areas with a taller sward there is a tendency for mesotrophic (moderate nutrient status) grassland to develop with sea couch *Elytrigia atherica* and, on the higher ground, marram.

Greatstone Dunes are a narrow bay dune system and consist largely of a successional sequence of dune habitats from foredune to mobile dune and dune scrub habitats. An important feature of these dunes is the transitions they demonstrate between vegetated shingle beach and foredune communities. For some of their length the dunes are also fronted by a strandline community. The foredunes support a narrow and discontinuous band of sand couch fronting marram-dominated mobile dunes, which make up the majority of the dune system. There are also areas of sea buckthorn scrub. Where the dunes are broader towards the north of the site, the mobile dunes grade into areas of semi-fixed dune and fixed dune grassland.

Romney Warren is a stable ness/cuspate foreland dune system developed over a series of ancient shingle ridges. There are two main types of fixed dune grassland communities. Grasslands in the south and south-east are dominated by mixtures of red fescue, common bent *Agrostis capillaris*, sea couch, smooth meadow-grass *Poa pratensis*, crested hair-grass *Koeleria macrantha* and sand sedge *Carex arenaria*. In contrast, the northern end supports dense species-poor swards dominated by sand sedge and sheep's fescue *Festuca ovina*, developed over acidic sands. In the south-west, dense mesotrophic grassland has developed over richer soils. This is dominated by false oat-grass *Arrhenatherum elatius* and sea couch, with cock's-foot *Dactylis glomerata* and red fescue.

### **Vegetated shingle**

The shingle beaches at Dungeness and Rye Harbour support a range of vegetated shingle communities and transitions between them. These communities reflect the geomorphological patterns of the shingle structure, reflecting both the time since deposition and the particle size and matrix of finer material present. A wide range of successional communities are present at Dungeness. One of the most unusual pioneer species is prostrate broom *Cytisus scoparius* ssp. *maritimus* which is an important component of the vegetation just inland of the pioneering driftline and false oat-grass grassland communities. On older shingle ridges the broom is eventually replaced by other species such as sweet vernal-grass *Anthoxanthum odoratum*, wood sage *Teucrium scorodonia* and common sorrel *Rumex acetosa*, and a rich lichen sward and 'thin heath' develops, with natural variation occurring where the shingle grades into grazing marsh, and on the eroding south coast of the site. Another important aspect of the vegetation is the range of blackthorn *Prunus spinosa* that occurs on low-lying areas of shingle, varying from 2m high shrubs to prostrate forms. The older blackthorn shrubs have a very rich epiphytic lichen flora dominated by *Usnea* spp., *Evernia prunastri* or *Hypogymnia physodes*. This lichen community is unique to shingle and has its best representation at Dungeness. Lydd Ranges supports the only known example of a "holly *Ilex aquifolium* wood" on shingle. Around the landward edge of the shingle beaches (such as at the northern end of Lydd Ranges) there are relict areas of sandy shingle which probably represent old dune systems. Even the areas of apparently bare shingle are in fact 'vegetated' by encrusting lichens, including the near-threatened species *Rinodina aspersa*.

On naturally bare shingle ridges near the coast at Rye Harbour, soil development is limited and only a few specialised pioneer plant species can colonise, such as sea-kale *Crambe maritima*, sea pea *Lathyrus japonicus* ssp. *maritimus*, sea campion *Silene uniflora* and curled dock *Rumex crispus*. As finer material accumulates within the gravel matrix, more species become established including viper's-bugloss *Echium vulgare*, yellow horned-poppy *Glaucium flavum* and herb-robert *Geranium robertianum* ssp. *maritimum*. After several centuries, a thin, well-drained soil develops on the older shingle ridges and a variety of grassland species occur, including buck's-horn plantain *Plantago*

*coronopus*, common stork's-bill *Erodium cicutarium*, sand spurrey *Spergularia rubra*, the vulnerable smooth cat's-ear *Hypochaeris glabra* and some fifteen species of vetch and clover. Around Camber Castle there are unique ancient ridges that have an extremely specialised grass flora. Where the shingle has been disturbed or removed in the past to a level above the water table there is a succession of different species to those found elsewhere. Here, species such as Danish scurvygrass *Cochlearia danica*, common bird's-foot-trefoil *Lotus corniculatus*, rue-leaved saxifrage *Saxifraga tridactylites* and the endangered least lettuce *Lactuca saligna* occur.

### **Natural shingle wetlands: saline lagoons, standing waters and basin fens**

The vast shingle beach at Dungeness contains a number of natural wetlands (unlike the extensive flooded pits created by gravel extraction), referred to as the Open and Fossil Pits, within Dungeness RSPB Reserve and Lydd Ranges. These wetlands have been subject to colonisation by vegetation and (the Open Pits at least) display stages of a classic hydrosere succession, from open water and marginal reed-swamp, through a form of marsh or fen, to grey willow *Salix cinerea* carr.

Some of the pits have reached a stage in the hydrosere succession where they have little or no open water. Most have floating rafts of vegetation, varying in the degree to which they have stabilised. These floating rafts of vegetation are typical of the "Schwingmoor" type of basin fen, where layers of peat are separated by lenses of water. The pits contain a range of fen types from nutrient-rich to poor fen, with vegetation ranging from single species swamps to more complex communities. Much of the vegetation comprises common reed swamp but poor fen communities are dominated by tall-herb fen, with marsh cinquefoil *Potentilla palustris*, the nationally scarce marsh fern *Thelypteris palustris*, common cottongrass *Eriophorum angustifolium* and bottle sedge *Carex rostrata*. Some pits have hummocks of bog-moss, including blunt-leaved bog-moss *Sphagnum palustre* and spiky bog-moss *S. squarrosum*, and one pit contains a small stand of great fen-sedge *Cladium mariscus*.

The oldest of the pits are now on the eroding south coast of Dungeness (in Lydd Ranges) and have reverted to saline conditions. They are typical, relatively stable, shingle percolation lagoons. The fauna of the pools that lie seaward of the embankment is comparatively diverse and includes the lagoonal specialist mud-snail *Ventrosia ventrosa*. The maritime influence of these pools is shown by the presence of the bivalve mollusc *Abra tenuis* and the polychaete worm *Capitella capitata*. The remaining pools lie landward of the embankment. They are surrounded by grassland with sea-purslane and sea aster, and have a dense submerged flora of tasselweed *Ruppia* spp. The tasselweed is well colonised by *Ventrosia ventrosa*, whilst the benthos predominantly comprises oligochaetes and opportunistic insects, but ragworms *Nereis diversicolor* are also common. The lagoons demonstrate a range of salinities and all show landward transitions to vegetated shingle habitats and to the shingle ridge geomorphology of Dungeness.

### **Lowland ditch systems**

The extensive systems of ditches and dykes (such as those which drain Walland Marsh and Pett Level) are important examples of lowland, slow-moving and eutrophic (nutrient-rich) waters. There is a brackish influence near the sea and also inland in the large ditches or where peat deposits, which leach salt, lie close to the surface. The majority of the ditches have high plant species richness.

The Dowels contains the greatest proportion of freshwater ditches on Walland Marsh and has the highest plant species diversity, with the nationally rare sharp-leaved pondweed *Potamogeton acutifolius* and several nationally scarce species, including greater water-parsnip *Sium latifolium* and marsh-mallow *Althaea officinalis*. Although components of this diverse flora are also found in the adjacent northern end of Snargate, the majority of Snargate is similar to Fairfield, Woolpack and Cheyne Court, where most of the ditches contain a characteristic but less diverse brackish community. The typical aquatic species are soft hornwort *Ceratophyllum submersum*, spiked water-milfoil *Myriophyllum spicatum*, fennel pondweed *Potamogeton pectinatus*, brackish water-crowfoot *Ranunculus baudotii*, thread-leaved water-crowfoot *R. trichophyllus* and horned pondweed *Zannichellia palustris*. The dominant emergent species in these areas are sea club-rush

*Bolboschoenus maritimus*, common reed and lesser bulrush *Typha angustifolia*. The ditch banks support a number of upper saltmarsh species, such as saltmarsh rush *Juncus gerardii*, sea-milkwort *Glaux maritima* and sea arrowgrass *Triglochin maritimum*. The large area of grazing marsh at East Guldeford also contains predominantly brackish ditches, although overall it is less brackish than Snargate, Fairfield and Woolpack. The ditch banks which are ungrazed or only lightly grazed are particularly important for marsh-mallow.

The grazing marsh ditches on Pett Level range from freshwater to brackish, and this contributes to the diversity of the fauna and flora. Recently cleared ditches rapidly become invaded by aquatic plants, such as fennel pondweed, soft hornwort and bladderwort *Utricularia australis* in the brackish ditches, and rigid hornwort *Ceratophyllum demersum*, broad-leaved pondweed *Potamogeton natans* and hairlike pondweed *P. trichoides* in those with a freshwater influence. The brackish ditches eventually become invaded by emergent species such as sea club-rush and grey club-rush *Schoenoplectus tabernaemontani*, while arrowhead, lesser bulrush, greater pond-sedge *Carex riparia*, and water dock *Rumex hydrolapathum* are more common in the freshwater ditches. Eventually, the late succession ditches become dominated by common reed.

### **Plants**

The site supports populations of four plant species that are listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended): Jersey cudweed *Gnaphalium luteoalbum* grows on the margins of gravel pits in Dungeness RSPB Reserve; least lettuce occurs in vegetated shingle at Rye Harbour Local Nature Reserve (LNR); there is a small colony of the early spider-orchid *Ophrys sphegodes* growing on an area of disturbed shingle adjacent to the nuclear power stations at Dungeness; and there are colonies of lizard orchids *Himantoglossum hircinum* (further details about the locations of these colonies are confidential due to the threat posed by illegal plant collectors).

The extensive areas of natural and semi-natural habitats, including shingle beaches, sand dunes, saltmarsh, grazing marsh, waterbodies and fens, support a large assemblage of nationally rare and nationally scarce vascular plant species (including the four Schedule 8 species listed above). Foremost amongst this assemblage are the suites of species associated with shingle beaches, grazing marsh and saltmarsh (including brackish wetlands in the shingle beaches and brackish ditches). The shingle beaches of Dungeness and Rye Harbour support at least six nationally scarce species (in addition to least lettuce and early spider-orchid), including the critically endangered red hemp-nettle *Galeopsis angustifolia*, and the near-threatened Nottingham catch-fly *Silene nutans* and yellow-vetch *Vicia lutea*. Saltmarshes and other brackish wetlands are equally rich, with at least eight nationally scarce species, including the vulnerable sea barley *Hordeum marinum* and Borrer's saltmarsh-grass *Puccinellia fasciculata*, and the near-threatened sea-heath. Grazing marshes, especially the extensive ditch systems of Walland Marsh, Denge Marsh and Pett Level, support the nationally rare (and critically endangered) sharp-leaved pondweed and at least six nationally scarce species, including the endangered greater water-parsnip, and the vulnerable divided sedge *Carex divisa* and rootless duckweed *Wolffia arrhiza*.

The vulnerable Warne's thread-moss *Bryum warneum* is a colonist of unshaded calcareous sand that must be persistently damp all year but not inundated by standing water. Warne's thread-moss occurs on wet sand beside a large freshwater gravel pit in Dungeness RSPB Reserve. Several smaller satellite colonies have become established beside small pools to the north of the main colony.

### **Water voles**

The extensive network of grazing marsh ditches, some in association with areas of wet reedbed, provides habitat for large populations of water voles *Arvicola terrestris*. The SSSI contains the core areas of an extensive distribution of this species in the Romney Marsh and Rye Bay area. The densest and most persistent population occurs at the southern end of Walland Marsh, between East Guldeford and Jury's Gap. Water voles also occur in large numbers further north on Walland Marsh at Woolpack, Fairfield and The Dowels, as well as in Rye Harbour LNR and on Pett Level.

The population fluctuates in numbers and range, largely dependent on summer water levels. The area is particularly favourable for water voles because many of the ditches hold water in the summer, stretches of ungrazed ditch bank provide vegetation cover, and predatory mink *Mustela vison* occur at a low density.

### **Breeding, wintering and passage birds**

The SSSI is regularly used by an assemblage of at least 40 breeding bird species typical of shingle beaches and saltmarshes, lowland damp grasslands, lowland open waters and their margins, and scrub. This assemblage regularly includes nationally important breeding numbers (exceeding 1% of the Great Britain breeding populations) of gadwall *Anas strepera*, garganey *A. querquedula*, shoveler *A. clypeata*, pochard *Aythya ferina*, tufted duck *A. fuligula*, little grebe *Tachybaptus ruficollis*, water rail *Rallus aquaticus*, avocet *Recurvirostra avosetta*, black-headed gull *Larus ridibundus*, sandwich tern *Sterna sandvicensis*, common tern *S. hirundo*, little tern *S. minima*, Cetti's warbler *Cettia cetti* and bearded tit *Panurus biarmicus*. Whilst many breeding birds use habitats throughout the SSSI, there are four areas that support particular concentrations associated with different combinations of habitats: Dungeness (particularly the RSPB Reserve); Rye Harbour LNR; Pett Level (particularly the Pannel Valley); and Cheyne Court. In addition to the assemblage, the SSSI supports nationally important breeding numbers of cormorant *Phalacrocorax carbo*, in two colonies at Dungeness RSPB Reserve and Rye Harbour LNR, and Mediterranean gull *Larus melanocephalus*, primarily at Rye Harbour LNR.

The extensive areas of open water, grazing marsh, reedbed and intertidal habitat in the SSSI provide safe feeding and roosting sites for nationally important numbers of waterfowl, together regularly supporting in excess of 20,000 individuals of more than 60 species. As well as the waterbird species listed below, which individually occur in nationally important numbers (exceeding 1% of the Great Britain populations), this assemblage regularly includes large numbers (greater than 12,000 individuals) of lapwing *Vanellus vanellus*. Sixteen species of waterfowl regularly winter here in nationally important numbers: mute swan *Cygnus olor*, Bewick's swan *C. columbianus bewickii*, European white-fronted goose *Anser albifrons albifrons*, wigeon *Anas penelope*, gadwall *A. strepera*, teal *A. crecca*, shoveler *A. clypeata*, pochard *Aythya ferina*, little grebe *Tachybaptus ruficollis*, great crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, bittern *Botaurus stellaris*, coot *Fulica atra*, golden plover *Pluvialis apricaria*, ruff *Philomachus pugnax* and sanderling *Calidris alba*. Two species of waterfowl regularly occur in nationally important numbers during migration periods: whimbrel *Numenius phaeopus* in spring and common sandpiper *Actitis hypoleucos* in autumn. The SSSI also supports nationally important numbers of hen harrier *Circus cyaneus* in winter and aquatic warbler *Acrocephalus paludicola* on autumn passage.

### **Great crested newt**

The particular combination and distribution of aquatic and terrestrial habitats in the SSSI provide exceptional breeding, foraging and hibernation conditions for great crested newts *Triturus cristatus*. The SSSI supports three metapopulations: one centred on Lydd Ranges; one extending from Dungeness RSPB Reserve to Lydd Airport; and one at Romney Warren. The newts depend on water for breeding, which takes place in spring, and particularly favour moderately deep, well-vegetated pools without fish. During the first two or three years of life before breeding starts, and outside the breeding season, great crested newts are dependent on terrestrial habitats to provide foraging areas and places to hibernate. The habitats which occur around and between the waterbodies are therefore as important as the presence of suitable breeding ponds.

### **Invertebrates**

The invertebrate fauna of Dungeness, Romney Marsh and Rye Bay is extremely unusual in a UK context, comprising a range of assemblages of thermophilic (warmth-loving) and wetland species. Foremost amongst these is the assemblage associated with vegetated shingle. The assemblage includes nationally important populations of seven endangered, vulnerable and rare species: the jumping spiders *Pellenes tripunctatus* and *Euophrys browningi* that can often be found inhabiting

old whelk shells; the case-moth *Coleophora galbulipenella* and white-spot moth *Hadena albimacula* whose larvae feed on Nottingham catchfly; the spider *Apostenus fuscus* that occurs in open false oat-grass grassland around the Long Pits; and the flea beetle *Dibolia cynoglossi* which is associated with red hemp-nettle at Dungeness and Rye Harbour. Some of this assemblage is thought to be endemic to Dungeness, including the leafhopper *Aphrodes duffieldi* and the grass-fly *Polyodaspis sulscollis*. Several sub-species and forms are also known solely from Dungeness, including the pygmy footman moth *Eilema pygmaeola pallifrons* and the pale grass egg moth *Lasiocampa trifolii flava*. The vegetated shingle also supports a nationally important population of the Sussex emerald moth *Thalera fimbrialis*, which is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Sussex emerald is restricted as a British resident to Dungeness, where larval populations of the species occur mostly on areas of disturbed sandy shingle within and around the perimeter fence encircling Dungeness Nuclear Power Stations.

Sand dunes support a nationally important population of the rare click beetle *Melanotus punctolineatus*, which breeds in areas of sparsely vegetated coastal dune, and are also noteworthy for a range of bees, wasps and ants. These assemblages include the spider-hunting wasp *Evagetes pectinipes*, a species that is restricted in the UK to this site and just one other on the Kent coast. The sand dunes share many features in common with some of the man-made shingle workings in which fine sands and silts have been deposited to form banks and shallow edges. In drier areas, assemblages of solitary bees and wasps, including the bee *Dasypoda altercator*, can be substantial and in places are accompanied by nest parasites, such as the bee-fly *Bombylius discolor* (which also occurs in grazing marsh), and typical sand dune species such as the tiny bee-fly *Phthiria pulicaria*. Where fine open sandy material interfaces with open water, assemblages of species normally associated with dune slacks include a nationally important population of the endangered ground beetle *Omopron limbatum*, along with the ground beetle *Dyschirius obscurus*, and the flies *Tachydromia terricola* and *Chersodromia alata*.

The SSSI is permeated by a complex network of water bodies ranging from the natural shingle wetlands to gravel pits and ditches. These wetlands exhibit a number of similar characteristics, apart from the deep, cold and largely sterile open waters of the main gravel pits. Shallow open water and emergent vegetation largely comprising common reed and bulrush *Typha latifolia* supports a rich water beetle assemblage including four species of *Dytiscus* and the great silver diving beetle *Hydrophilus piceus*. It also supports a substantial dragonfly assemblage. Other noteworthy aspects of the invertebrate assemblage include a suite of reed beetles *Donacia* spp., snail-killing flies (Sciomyzidae) and soldier-flies (Stratiomyidae) that are typical of coastal marshes. Much of this assemblage is to be found within the ditch systems of Walland Marsh, Pett Level, Rye Harbour and Denge Marsh. Walland Marsh supports a nationally important population of the endangered marsh mallow moth *Hydraecia osseola hucherardi*, and is one of just two localities in Great Britain for this specialist whose larvae feed within the roots of marsh-mallow. The range of shallow, well-vegetated waterbodies provide ideal conditions for a nationally important metapopulation of medicinal leeches *Hirudo medicinalis*, a species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Assemblages associated with particular plants are also noteworthy, foremost of which are the moths and beetles whose larval stages feed on viper's bugloss *Echium vulgare*. This assemblage includes a nationally important population of the (provisionally) vulnerable micro-moth *Ethmia terminella*, as well as the moths *Ethmia bipunctella* and *Cynaeda dentalis*, and the spectacular weevil *Ceutorrhynchus geographicus*. Other noteworthy plant associations include the extensive population of dodder *Cuscuta epithimum* which supports two tiny weevils *Smicronyx coecus* and *S. jungermanniae*, yellow horned-poppy in whose roots lives the weevil *Ceutorrhynchus verrucatus*, and prostrate broom which has a distinctive fauna both as live plants and dead stems.

## *Annex 2*

### **Views about Management**

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification package.

## Views About Management

Wildlife & Countryside Act 1981 Section 28(4) as inserted by  
Schedule 9 to the Countryside and Rights of Way Act 2000

### **A statement of English Nature's views about the management of Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI)**

This statement represents English Nature's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. English Nature has a duty to notify the owners and occupiers of the SSSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

This statement does not constitute consent for any of the list of operations requiring English Nature's consent. The written consent of English Nature is required before carrying out any of those operations. English Nature welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

### **Management Principles**

#### Geomorphological interests

From a management perspective the geomorphological interest of the SSSI falls into three categories: buried deposits, surface features and the actively evolving coastal landforms. In areas with buried geomorphological interest, management should aim to limit disturbance or removal of material of interest, or drying out of peat deposits and to maintain opportunities for accessing the interest features by boreholes, remote sensing techniques and temporary trenches. Development adjacent to these areas may also impact upon the subsurface features, for instance through drainage.

The static geomorphological features, most significantly the ridge features away from the active coastal front, are important as a long-term record of coastal change. They are irreplaceable if destroyed and management should aim to protect these areas from activities that may damage or obscure them. Such activities range from development and coastal defence schemes to recreational pressures, such as off-road driving.

Conservation of the active shoreline is focussed on minimising disruption to coastal processes and allowing the shoreline to function as naturally as possible in the face of a range of pressures, including climate change. It is acknowledged that both the Dungeness and Rye Harbour elements of the site have been strongly influenced by human activities; however the site remains of classic importance. Indeed part of the interest is in understanding how human activity influences its long-term evolution. However, coastal management measures should work with and not against coastal processes, and operate in synergy with the evolutionary trends of the shingle foreland.

#### Biological interests

Many of the areas that support important habitats or species may require little or no management intervention as they are maintained naturally by active coastal processes, such as the evolution of the cusped foreland, sand dune formation and estuary dynamics. However, there are situations where active management may be required, including those cases where natural processes have been interrupted or modified by human activities.

As is the case with many of the static geomorphological features with which they chiefly associated, the key requirement in areas of vegetated shingle is to avoid disturbance, especially in more open communities. Where there are significant recreational pressures, access may need to be managed, and light grazing may be required in more closed vegetation communities.

Not all saltmarsh habitats need active management but where this is required, grazing has traditionally been used. Timing and intensity of grazing will vary according to local conditions and requirements and care should be taken not to overgraze the site. Good water and sediment quality should be maintained.

Management of dune systems should take into account the need to maintain a range of habitats and associated species reflecting different stages of succession, by maintaining or restoring the natural processes and dynamics of dune development and succession. Selective scrub management and grazing or mowing may be necessary, especially where dunes have become over stabilised.

Any management of saline lagoons needs to be tailored to the needs of each individual lagoon, and should be based on an understanding of the natural features of importance and the external factors affecting the lagoon. Maintaining salinity and water depth can be particularly important.

Grazing marshes are primarily managed by grazing. Agricultural operations should take into account the needs of breeding, wintering and migrating wetland birds (careful timing of operations is important), invertebrates (which may require the protection of their food plants from grazing) and water voles (which require the maintenance of sufficient vegetation cover on ditch banks). Regular and careful management or restoration of ditches, drains and other wetland features may be necessary, such as periodic removal of sediment and vegetation to return ditches to an early stage of the management cycle. Ideally, ditch management should be undertaken on a rotation, creating a series of different management stages across a site at any one time. Ditches should be managed to ensure that there is a sufficient depth of water (0.3-0.5m) throughout much of the ditch network for most of the year, although some species favour desiccated ditches. Good water quality is essential in maintaining a healthy wetland system.

Management should seek to retain swamp communities in the same place or should acknowledge the dynamics of succession by ensuring there is always a new niche for swamp communities to develop in. A programme of rotational cutting to maintain reedbeds may be necessary to encourage growth whilst preventing excessive build up of litter. Management should ensure water quality is maintained according to the requirements of the wetland communities present.

In artificial standing water bodies, such as gravel pits, management should aim to maintain the habitats associated with shallowly sloping margins and to ensure that a range of vegetated and bare margins and islands are present for wetland plants and invertebrates, and for feeding, roosting and nesting by wetland birds.

Management must ensure that the local surface water that drains into basin fens and other natural shingle wetlands is of appropriate quality. Management may be necessary to prevent the encroachment of trees and scrub and in most cases these should be restricted to a few small scattered stands for the benefit of lichens, birds and invertebrates.

Great crested newts preferentially breed in unshaded, medium-sized water bodies up to 2 m deep, in the vicinity of suitable terrestrial habitat. Any pond management work is best carried out in late autumn or early winter, after adult newts have left the pond and before ground conditions become too wet. A variety of ponds differing in depth and permanence, offer a safeguard against the effects of drought and fish. Barriers to newt movement should be avoided.

**Date notified: 16 August 2006**

## *Annex 3*

### **List of operations requiring English Nature's consent**

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification package.

## **Operations requiring English Nature's consent**

Wildlife and Countryside Act 1981 Section 28(4)(b), substituted by Schedule 9 to the Countryside and Rights of Way Act 2000

The operations listed below may damage the features of interest of Dungeness, Romney Marsh and Rye Bay SSSI. Before any of these operations are undertaken you must consult English Nature, and may require our consent.

It is usually possible to carry out some of these operations in certain ways, or at specific times of year, or on certain parts of the SSSI, without damaging the features of interest. If you wish to carry out any of these activities please contact the English Nature Conservation Officer named in this package who will give you advice and where appropriate issue a consent. Please help us by using the enclosed form to ask us for consent to carry out these operations.

In certain circumstances it will not be possible to consent these operations, because they would damage the features of interest. Where possible the Conservation Officer will suggest alternative ways in which you may proceed, which would enable a consent to be issued. To proceed without English Nature's consent may constitute an offence. If consent is refused, or conditions attached to it, which are not acceptable to you, you will be provided with details of how you may appeal to the Secretary of State.

<b>Standard reference number</b>	<b>Type of operation</b>
1.	Ploughing, rotovating, harrowing and re-seeding for cultivation and other purposes.
2.	Grazing and alterations to the grazing regime (including type of stock, intensity or seasonal pattern of grazing).
3.	Stock feeding and alterations to stock feeding practice.
4.	Mowing or cutting vegetation and alterations to the mowing or cutting regime (such as from haymaking to silage).
5.	Application of manure, slurry, silage liquor, fertilisers and lime.
6.	Application of pesticides, including herbicides (weedkillers) whether terrestrial or aquatic, and veterinary products.
7.	Dumping, spreading or discharging of any materials.
8.	Burning and alterations to the pattern or frequency of burning.
9.	Release into the site of any wild, feral, captive-bred or domestic animal, plant, seed or micro-organism (including genetically modified organisms).
10.	Killing, injuring, taking or removal of any wild animal (including dead animals or parts thereof), or their eggs and nests, including pest control and disturbing them in their places of shelter.
11.	Destruction, displacement, removal or cutting of any plant or plant remains (including tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungus, leaf-mould, turf and peat).

<b>Standard reference number</b>	<b>Type of operation</b>
12.	Tree and/or woodland management and alterations to tree and/or woodland management (including, planting, felling, pruning and tree surgery, thinning, coppicing, changes in species composition, removal of fallen timber).
13a.	Draining (including the use of mole, tile, tunnel or other artificial drains).
13b.	Modification to the structure of water courses (rivers, streams, springs, ditches, dykes, drains and canals), including their banks and beds, as by re-alignment, regrading, damming or dredging.
13c.	Management of aquatic and bank vegetation for drainage purposes.
14.	Alterations to water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes). Also the modification of current drainage operations.
15.	Infilling or digging of ditches, dykes, drains, ponds, pools, marshes or pits.
16a.	Freshwater fishery production and/or management, including sporting fishing and angling, and alterations to freshwater fishery production and/or management.
16b.	Coastal fishing, fisheries management and seafood or marine life collection, including the use of traps or fish cages, and alterations to coastal fishing practice or fisheries management and seafood or marine life collection.
17.	Reclamation of land from sea, estuary or marsh.
18.	Bait digging in intertidal areas.
19.	Erection and repair of sea defences or coast protection works, including cliff or landslip drainage or stabilisation measures.
20.	Extraction of minerals including peat, shingle, hard rock, sand and gravel, topsoil, subsoil, chalk, shells and spoil.
21.	Destruction, construction, removal, rerouting, or regrading of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, including soil and soft rock exposures or the laying, maintenance or removal of pipelines and cables, above or below ground.
22.	Storage of materials.
23.	Erection of permanent or temporary structures or the undertaking of engineering works, including drilling.
24a.	Modification of natural or man-made features.
25.	Removal of geological specimens, including rock samples, minerals and fossils.
26.	Use of vehicles or craft.

<b>Standard reference number</b>	<b>Type of operation</b>
27.	Recreational or other activities likely to damage or disturb the features of special interest.
28a.	Game and waterfowl management and hunting practices and alterations to game and waterfowl management and hunting practice.
28b.	Use of lead shot.

### **Notes**

- i. This is a list of operations appearing to English Nature to be likely to damage the special features of the SSSI, as required under section 28 (4) (b) of the Wildlife and Countryside Act 1981 substituted by Schedule 9 to the Countryside and Rights of Way Act 2000.
- ii. Where an operation has been granted a consent, licence or permission from another authority separate consent will not be required from English Nature. However, other authorities are required to consult English Nature before such consents, licences or permissions are issued.
- iii. Any reference to ‘animal’ in this list shall be taken to include any mammal, reptile, amphibian, bird, fish, or invertebrate.

**Date notified: 16 August 2006**

**National grid reference: TR069201**

## *Annex 4*

### **Maps showing the land notified**

This is a legal document on which you have a legal right to make objections or representations, as explained in part 3 of this notification package.

Insert overview {map 1 of 1}



{Insert Summary Map} (map 1 - 3)

{Insert boundary maps} (maps 1 – 24)

{Insert extensions and deletions summary maps} (maps 1 – 3)

Insert extension and deletions maps (1 – 24)