Teesmouth and Cleveland Coast SSSI
Hartlepool, Middlesbrough, Redcar and Cleveland, Stockton-on-Tees

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

Seal Sands SSSI
Hartlepool, Stockton-on-Tees

Notification under section 28D of the Wildlife and Countryside Act 1981

Issued by Natural England’s Northumbria Area Team on 31 July 2018
Contact points and further information

This notification document is issued by Natural England’s Northumbria Area Team.

Our address for correspondence is:

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Your contact point for enquiries relating to this notification is: the Teesmouth and Cleveland Coast Designations Team.

A second document (Teesmouth and Cleveland Coast - 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 propose the de-notification of parts of the Seal Sands SSSI.

The date of notification of the Teesmouth and Cleveland Coast SSSI is 31 July 2018

The date of proposed de-notification of parts of the previously notified Seal Sands SSSI is 31 July 2018.
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1. **Summary**

1.1 This document explains why the Teesmouth and Cleveland Coast is notified by Natural England as a Site of Special Scientific Interest (SSSI). This document also explains why Natural England is of the opinion that parts of the previously notified Seal Sands SSSI are not of special interest and, therefore, why Natural England is proposing to remove the SSSI notification (a process known as ‘de-notification’) from those areas.

1.2 The Tees is one of the most heavily modified estuaries in the country and has lost approximately 90% of its intertidal habitats to land claim. The semi-natural habitats that remain are nestled in amongst significant industrial development, including one of the United Kingdom’s busiest container ports and a large proportion of its chemical processing industry, and are surrounded by urban settlements.

1.3 The Teesmouth and Cleveland Coast SSSI is an extensive mosaic of coastal and freshwater habitats centred on the Tees Estuary. It is of special interest for its nationally important Jurassic and Quaternary geology, saltmarsh, sand dunes, breeding harbour seals, breeding and non-breeding birds, and invertebrates associated with sand dunes.

1.4 The Teesmouth and Cleveland Coast SSSI is notified under section 28C of the Wildlife and Countryside Act 1981. Seven SSSIs have been notified previously in the Teesmouth and Cleveland Coast area: Seal Sands SSSI (294.37 ha, notified in 1983); Redcar Rocks SSSI (31.1 ha, notified in 1984); Seaton Dunes and Common SSSI (312.1 ha, notified in 1985); Hartlepool Submerged Forest SSSI (19.7 ha, notified in 1988); South Gare and Coatham Sands SSSI (381.2 ha notified in 1988); Cowpen Marsh SSSI (116.8 ha, notified in 1989); and Tees and Hartlepool Foreshore and Wetlands SSSI (255.62 ha, notified in 1997).

1.5 The Teesmouth and Cleveland Coast SSSI includes the majority of the area of these previously notified SSSIs. It also rationalises and clarifies the special interest of the overall area within a single landscape-scale designation covering 2,977.03 ha, combining and linking existing designations with substantial extensions (totalling 1,584.18 ha). This encompasses key elements of the estuarine and coastal system, including core areas of nesting, feeding and roosting habitats for nationally important numbers of breeding and non-breeding seabirds and waterbirds. This will stimulate conservation of the Teesmouth and Cleveland Coast area by extending protection to a landscape scale and providing industry and developers with certainty over the location and nature of the special nature conservation interests of the area.

1.6 Parts (22.68 ha) of the previously notified Seal Sands SSSI, are not considered to be of special interest and are proposed for denotification.

1.7 The annexes to this document are the legal papers that detail the scientific interest of the Teesmouth and Cleveland Coast SSSI and the management required to maintain this interest, as well as maps of the site. You have a right to make representations or objections about the notification of this SSSI and to the proposed denotification of parts of the previously notified Seal Sands SSSI. Part 3 of this document explains how to do this.

1.8 Additionally, Natural England’s consent is required by owners and occupiers before 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 likely to damage the special features of the SSSI can be carried out as usual.

2. **The legal background**

2.1 Seaton Dunes and Common SSSI is enlarged under Section 28C of the Wildlife and Countryside Act 1981 (as amended) and is now known as Teesmouth and Cleveland Coast SSSI. The Teesmouth and Cleveland Coast SSSI includes land within and extending beyond Seaton Dunes and Common SSSI (as previously notified in 1985) and the boundary incorporates Redcar Rocks.
SSSI, Hartlepool Submerged Forest SSSI, South Gare and Coatham Sands SSSI, Cowpen Marsh SSSI, Tees and Hartlepool Foreshore and Wetlands SSSI and the majority of Seal Sands SSSI, as well as substantial extensions.

2.2 With effect from date of this notification under section 28C, the previous notification of the Seaton Dunes and Common SSSI ceases to have effect (section 28C(5) of the Wildlife and Countryside Act 1981). The previous notifications of Seal Sands SSSI, Redcar Rocks SSSI, Hartlepool Submerged Forest SSSI, South Gare and Coatham Sands SSSI, Cowpen Marsh SSSI and Tees and Hartlepool Foreshore and Wetlands SSSI do not cease to have effect from the date of this notification but, subject to the confirmation of this notification under Section 28(5) of the Wildlife and Countryside Act 1981, Natural England will treat those notifications as though they do cease to have effect.

2.3 Parts of the previously notified Seal Sands SSSI are not within the land subject to the notification under section 28C. In the opinion of Natural England these areas are not of special interest and they are notified as such under section 28D of the Wildlife and Countryside Act 1981. Removal of these areas from the Seal Sands SSSI is not effective until the date of confirmation of the notification under section 28D(5).

2.4 Part 9 of this notification document contains the following legal papers 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 Natural England’s views on the management of the SSSI (Annex 2);
- a list of operations requiring Natural England’s consent (Annex 3); and
- maps identifying the land subject to the notifications under sections 28C and 28D (Annex 4).

2.5 The notification of the SSSI under section 28C has several effects. The key ones can be summarised as follows:

- owners and occupiers must give Natural England 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 Natural England 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; and
- other public bodies must consult Natural England before carrying out or authorising any works that may damage the SSSI.

2.6 The notification under section 28D of parts of the previously notified Seal Sands SSSI, which in the opinion of Natural England are not of special interest, has several effects. The key ones can be summarised as follows:

- it provides the opportunity for you to make representations or objections to the notification of these parts as not being of special interest;
- it does not take effect unless and until it is confirmed by Natural England (with or without modification), and until such time these parts of the site remain subject to the effects of the previous notification (the same effects as set out in 2.5 above); and
- if confirmed (with or without modification), the land subject to the notification under section 28D shall no longer be part of the previously notified SSSI and therefore shall no longer be subject to the effects set out in 2.5 above.
2.7 If you require any further information or advice on how these notifications affect you, please do not hesitate to contact Natural England at the address shown at the beginning of this notification document.

3. Making representations

3.1 You have a legal right to make objections and representations about these notifications. Any representations, including those supporting the notifications, or objections should be made in writing to Natural England’s Northumbria Area Team by 30 November 2018. Representations can be sent by post, e-mail or online to the addresses 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 Natural England’s Northumbria Area Team will consider your objections or representations and will try to resolve them. If there are no unresolved objections, approval to confirm the notifications will be considered by an appropriate Natural England Director within nine months of these notifications.

3.3 Any unresolved objections or representations will be considered by the Board of Natural England within nine months of these notifications. If there are unresolved objections, confirmation of these notifications is likely to be considered at the Board meeting provisionally scheduled for March 2019. Please note the desirability of the notification (for instance, for socio-economic reasons) will not form part of the Board’s decision. Following consideration of objections and representations, the Board of Natural England may confirm or withdraw all or parts of these notifications. In reaching its decision the Board will consider whether, in light of the objections and representations received, Natural England remains of the opinion that the site is of special scientific interest. If you wish to emphasise any of your objections or representations to the Board in person, you should tell us when you write to us. You will then be advised of the date and location of the Board meeting.

3.4 Natural England will accept correspondence relating to unresolved objections up to seven days prior to the Board meeting at which the confirmation is due to be considered. Correspondence received after this date will only be presented to the Board in very exceptional circumstances and you will be expected to provide justification as to why there has been a delay in providing the information. The decision whether this information will be submitted to the Board is entirely at Natural England’s discretion. The reason that there is a seven day cut off is to allow Board members sufficient opportunity to consider all of the issues and read all the relevant paperwork before they meet to take their decision.

3.5 Natural England 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.

3.6 As an individual or organisation with an interest in the Teesmouth and Cleveland Coast SSSI your information will be stored and processed on a computer database that will be operated
within the Data Protection Act 1998 and the General Data Protection Regulation 2016. The Act and the Regulation give 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 Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX

4. Reasons for notification

4.1 The Teesmouth and Cleveland Coast SSSI is an extensive mosaic of coastal and freshwater habitats centred on the Tees Estuary, including sand dunes, saltmarsh, mudflats, rocky and sandy shore, saline lagoons, grazing marshes, reedbeds and freshwater wetlands. These habitats support rich assemblages of invertebrates, breeding seals and large numbers of breeding and non-breeding seabirds and waterbirds. The site is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:

- **Jurassic geology**
  The foreshore between Redcar Rocks and Coatham Rocks provides exposures of parts of the Lower Jurassic succession that are otherwise unexposed in the Cleveland Basin. These complement the younger Lower Jurassic successions exposed further south in Robin Hood’s Bay and are sedimentologically distinct from rocks of the same age to the south of the Market Weighton Axis. The sequence of ammonite assemblages that occur here indicates that the succession is very complete and may provide a key for the comparison of other Hettangian and Sinemurian successions in the Northwest European Province.

- **Quaternary geology**
  Tees Bay includes a feature known as the ‘submerged forest’ which has been well studied on the foreshore at Hartlepool between Carr House Sands and just north of Newburn Bridge but which is also exposed south of Teesmouth on the foreshore at Redcar. On the Hartlepool foreshore there is complex of peats, estuarine and marine sediments deposited during the Holocene, which overlie glacial deposits from the last Ice Age. Within the peats there are tree stumps and branches. This sequence is also rich in fossils and contains archaeological evidence from the Mesolithic to the Romano-British periods. The palaeoenvironmental records at Hartlepool indicate changes in sedimentation due to fluctuations in relative sea level during the mid-Holocene, from approximately 7,000 to 3,000 years BP. The location of Hartlepool on the fulcrum between areas of crustal uplift to the north and subsidence to the south makes these sediments crucial in interpreting Holocene sea level change.

- **Saltmarsh**
  The Tees Estuary supports the largest area of saltmarsh between Lindisfarne and the Humber Estuary. Its saltmarshes show a succession of vegetation types, from pioneer marshes of glassworts *Salicornia* species and annual sea-b lite *Suaeda maritima*, through common saltmarsh-grass *Puccinellia maritima* communities, to stands dominated by common couch *Elytrigia repens* and its hybrid with sea couch *Elytrigia atherica*, *Elytrigia x drucei*, at the limit of tidal influence. The common saltmarsh-grass communities are diverse and sea aster *Aster tripolium*, common sea-lavender *Limonium vulgare* and thrift *Armeria maritima* provide a colourful late summer display.

- **Sand dunes**
  The site supports an extensive complex of dunes flanking both side of the Tees Estuary. It is the largest dune complex between Druridge Bay (Northumberland) and Spurn Point (East Yorkshire). There are two main dune systems: Seaton Dunes to the north of the Tees, and

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1 Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation) 2016.
Coatham Dunes to the south. The dunes support a large area of semi-natural vegetation including the typical succession from strandline vegetation, occasionally including sea sandwort Honckenya peploides and sea rocket Cakile maritima, through foredunes of sand couch Elytrigia juncea and mobile dunes dominated by both marram Ammophila arenaria and lyme-grass Leymus arenarius, to fixed dune grassland with diverse swards, where herbs such as common bird’s-foot trefoil Lotus corniculatus, lady’s bedstraw Galium verum, fairy flax Linum catarticum and common restharrow Ononis repens form a prominent component. The fixed dunes also support a number of scarce and threatened species, including purple milk-vetch Astragalus danicus. There are a number of damp depressions in both dunes (‘slacks’), which support a range of wetter vegetation types. A particularly prominent feature of some of the slacks are large and colourful stands of marsh orchids Dactylorhiza species and their hybrids. Some of the slacks show affinities with saltmarsh vegetation, with salt-tolerant species such as saltmarsh rush Juncus gerardii, sea plantain Plantago maritima and sea-milkwort Glaux maritima. More consistently wet slacks support swamp communities. The dunes also show transitions to wetter habitats and saltmarsh.

- **Harbour seal**

Harbour seals Phoca vitulina (also known as common seal) have lived at the mouth of the River Tees for hundreds of years but were lost from the estuary for much of the 20th Century, principally due to pollution. They recolonised the estuary in the 1980s and have subsequently established a regular breeding colony which is the only pupping site in north-east England. Harbour seals are present in the estuary and the tidal Tees throughout the year, with regular haul outs at Greatham Creek and Seal Sands. Pupping tends to occur in June and July on the intertidal mud of Seal Sands.

- **Breeding birds**

The site supports nationally important numbers of three breeding species: avocet Recurvirostra avosetta, little tern Sterna albitrons and common tern Sterna hirundo. Avocets and common terns both nest within the SSSI. Little terns from a large nearby colony at Crimdon (in the adjacent Durham Coast SSSI) use the SSSI for foraging and pre- and post-breeding gatherings, with only occasional recent nesting attempts.

The extensive sand dunes, saltmarshes and wetlands across the site support a diverse assemblage of breeding birds. This includes a number of scarce and declining species, such as shoveler Spatula clypeata, pochard Aythya ferina, ringed plover Charadrius hiaticula and little ringed plover C. dubius.

- **Non-breeding birds**

The extensive areas of open water, grazing marsh and intertidal habitats within the site provide safe feeding and roosting opportunities for large numbers of waterbirds throughout the year. The site is of special interest for its non-breeding populations of ten species (shelduck Tadorna tadorna, shoveler, gadwall Mareca strepera, ringed plover, knot Calidris canutus, ruff Calidris pugnax, sanderling Calidris alba, purple sandpiper Calidris maritima, redshank Tringa totanus, Sandwich tern Thalasseus sandvicensis) and an assemblage of over 20,000 non-breeding waterbirds. The assemblage comprises a wide variety of waterbirds, including (in addition to the aforementioned species that are reasons for notification in their own right), large numbers of wigeon Mareca penelope, lapwing Vanellus vanellus, black-headed gull Chroicocephalus ridibundus and herring gull Larus argentatus. Shoveler, gadwall and ruff are predominantly associated with the extensive freshwater wetlands of the site, while ringed plover, knot, sanderling, purple sandpiper and Sandwich tern mostly use the open coast. Redshank are widespread across the site, but the greatest foraging concentrations occur, along with the largest numbers of shelduck, on the intertidal mud of Seal Sands and Greatham Creek. Seal Sands and Bran Sands are also regularly used by ringed plover and knot.
• **Invertebrate assemblage**
  
  The extensive complex of sand dunes within the site supports a nationally important invertebrate assemblage, including at least 14 threatened species. The assemblage is diverse and makes use of a wide range of niches, with a strong dependency on open but consolidated sand exposures within which to nest and hunt, as well as on flower-rich swards for nectar and pollen gathering. The assemblage does not include a high number of rarities but is a good example of its type in the north of its range. As such, species such as the tephritid fly *Acanthiophilus helianthi*, whose larvae feed within the capitula of carline thistle, occur towards the northern edge of their British range. The grayling butterfly *Hipparchia semele* is found here and remains a scarce species on this north-eastern coastal strip.

5. **Reasons for notifications under section 28D (de-notifications)**

5.1 In the opinion of Natural England, a small part of the previously notified Seal Sands SSSI is not of special interest, following the full implementation of legally permitted development. Accordingly this area is proposed for de-notification, the effects of which are described in section 2.6. The total area proposed for de-notification is 22.68 ha.

5.2 The area proposed for de-notification was formerly mudflat and supported the notified bird interest of Seal Sands SSSI. The area now supports industrial infrastructure and coarse brownfield grassland following land claim and subsequent development. None of the habitats that support the special interests of the SSSI remain in this area and there is no reasonable prospect of recovery or restoration.

6. **Site boundaries**

6.1 The boundary has been drawn to include all areas supporting the features of interest as well as those required to ensure the long-term sustainability of these features. The site extends from Crimdon in the north to Marske in the south, inland to Billingham and upstream to the Tees Barrage. The northern boundary of the site abuts Durham Coast SSSI.

6.2 The whole of the Tees Estuary is included, from between North and South Gare, upstream to the tidal limits of the Tees and Greatham Creek. This includes areas of docks, harbours, ports and coastal defence infrastructure.

6.3 The coastal strip includes all of the intertidal habitat from Crimdon to Marske. It is predominantly sandy but includes some significant areas of rocky foreshore as well as smaller sections with a muddier substrate.

6.4 There are large dune systems on either side of the estuary mouth: Seaton Dunes to the north of the Tees and Coatham Dunes to the south. The boundary has been drawn to include all areas of semi-natural sand dune vegetation in Tees Bay.

6.5 Flanking the estuary, the SSSI boundary includes extensive areas of wet grassland and freshwater pools, together with smaller patches of a wide range of other habitats including reedbed, saline lagoons and brownfield grassland.

6.6 The boundary of the SSSI has been drawn to follow the nearest physical feature on the ground where possible. This usually follows existing fence lines, hedgerows, ditches, drains, roads and tracks. 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. Conversely, where the boundary is drawn to a stream, ditch or drain, the outer bank has been used therefore including the stream, ditch or drain in the site.

6.7 Further clarification on the location of the SSSI boundary can be found in the Supporting Information document referenced in part 8. Alternatively, if you have queries in relation to specific areas of land, please contact Natural England’s Northumbria Area Team at the address on page 2 of this document.
7. Management of the SSSI

7.1 Landowners and managers are critical to the ongoing management of the SSSI. Natural England aims to foster the best possible relationship with those managing the land so that its biodiversity and geodiversity can be conserved whilst also securing wider benefits. This notification includes a statement (Annex 2) of the management that Natural England 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. It provides a guide for discussions with owners and managers on action to achieve positive management of the SSSI.

7.2 Owners and occupiers will require consent before undertaking some operations in the SSSI. This notification includes a list of operations requiring Natural England’s consent in Annex 3. The basis for the selection of these operations is set out in the Supporting Information document. Some 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 operations 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 Natural England; other public bodies are required to consult Natural England before such consents, licences or permissions are issued.

8. Supporting information

8.1 The detailed information which has been used to assess the importance of this SSSI (Teesmouth and Cleveland Coast SSSI – supporting information) is available on request from the address on page 2.

9. Legal documents

9.1 Attached at Annexes 1-4 that are the legal documents 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 document.
Site Name: Teesmouth and Cleveland Coast  Unitary Authority: Hartlepool; Middlesbrough; Redcar and Cleveland; Stockton-on-Tees

Status: Site of Special Scientific Interest (SSSI) notified under section 28C of the Wildlife and Countryside Act 1981

Local Planning Authority: Hartlepool Borough Council; Middlesbrough Council; Redcar and Cleveland Borough Council; Stockton-on-Tees Borough Council; Tees Valley Combined Authority

Ordnance Survey 1:50,000 sheets: 93 National Grid reference: NZ535526

Notification date: 31 July 2018 Area: 2,977.03 ha

Reasons for notification
The Teesmouth and Cleveland Coast SSSI is of special interest for the following nationally important features that occur within and are supported by the wider mosaic of coastal and freshwater habitats:

- Jurassic geology;
- Quaternary geology;
- sand dunes;
- saltmarshes;
- breeding harbour seals Phoca vitulina;
- breeding avocet Recurvirostra avosetta, little tern Sternula albifrons and common tern Sterna hirundo;
- a diverse assemblage of breeding birds of sand dunes, saltmarsh and lowland open waters and their margins;
- non-breeding shelduck Tadorna tadorna, shoveler Spatula clypeata, gadwall Mareca strepera, ringed plover Charadrius hiaticula, knot Calidris canutus, ruff Calidris pugnax, sanderling Calidris alba, purple sandpiper Calidris maritima, redshank Tringa totanus and Sandwich tern Thalasseus sandvicensis;
- an assemblage of more than 20,000 waterbirds during the non-breeding season; and
- a diverse assemblage of invertebrates associated with sand dunes.

General description
The Teesmouth and Cleveland Coast SSSI is an extensive mosaic of coastal and freshwater habitats centred on the Tees Estuary. These include sand dunes, saltmarshes, mudflats, rocky and sandy shores, saline lagoons, grazing marshes, reedbeds and freshwater wetlands. The site stretches from Crimdon Dene Mouth in the north, to Marske in the south, inland to Billingham and upstream to the Tees Barrage.

The Tees is one of the most heavily modified estuaries in the country and has lost the majority of its former intertidal habitat to land claim. The semi-natural habitats that remain are nestled amongst significant industrial development, including one of the United Kingdom’s busiest container ports and a large proportion of its chemical processing industry, and are surrounded by urban settlements.

The SSSI includes the whole of the Tees Estuary, from its mouth between North Gare and South Gare, upstream to the tidal limits of the Tees and Greatham Creek. This contains a large area of intertidal mud and saltmarsh. The coastal strip is predominantly sandy but includes rocky foreshores as well as areas of muddier substrate and an area with peat deposits, including the remains of a submerged forest. There are large dune systems on either side of the estuary mouth: Seaton Dunes to the north of the Tees and Coatham Dunes to the south. Flanking the estuary are extensive areas of wet grassland and
freshwater pools, together with smaller patches of a wide range of different habitats including reedbed, saline lagoons and brownfield grassland.

Jurassic geology

The foreshore exposures between Redcar Rocks and Coatham Rocks demonstrate a Lower Jurassic succession that ranges from the Liassicus Zone of the Hettangian Stage through to the Margaritatus Zone of the lower portion of the Pliensbachian Substage. The succession also includes much of the Lower Sinemurian and intermittent exposures of parts of the Upper Sinemurian substages. These are the most northerly extensive exposures of the Lower Jurassic in England. Although the higher parts of the succession are closely similar to those exposed further south in Robin Hood’s Bay, the mid-Hettangian to Lower Sinemurian part is only exposed at Redcar Rocks, which are dominated by silty mudstones and few limestones, contrasting markedly with the successions of the same age to the south of the Market Weighton Axis. There, the Blue Lias Formation comprises numerous beds of limestone interbedded with mudstones.

In addition to ammonites, the Hettangian and Lower Sinemurian portions of the succession contains a diverse fossil invertebrate assemblage that includes at least 44 species of bivalve, 29 species of gastropods and scaphopods, as well as brachiopods, corals, echinoderms and annelids. The vertebrae and teeth of ichthyosaurs and plesiosaurs also occur, as do the teeth of the fishes Hybodus and Acrodus. The sequence of ammonite faunas present indicates that the Hettangian-Lower Sinemurian part of the succession is remarkably complete and represents the best Hettangian-Sinemurian boundary section in northern Britain. Within the Hettangian part of the succession, a complete sequence of Angulata Zone ammonite assemblages is likely to be present, while a virtually complete Scipionianum to Sauzeanum subzone sequence is present.

Redcar Rocks has potential as a key Hettangian-Sinemurian sequence and complements the better-known Robin Hood’s Bay succession where the basal Sinemurian and Hettangian stages are not exposed. In particular, the Semicostatum Zone sequence is one of the best developed anywhere within the Northwest European Province.

Quaternary geology

Tees Bay includes a feature known as the ‘submerged forest’ which has been well studied on the foreshore at Hartlepool between Carr House Sands and just north of Newburn Bridge but which is also exposed south of Teesmouth on the foreshore at Redcar. On the Hartlepool foreshore there is complex of peats, estuarine and marine sediments deposited during the Holocene, which overlie glacial deposits from the Devensian (last Ice Age). Within the peats there are tree stumps and branches from oak, pine and birch within a discontinuous band of peat.

Palaeoenvironmental reconstructions indicate that environments range from former ground surfaces to estuarine environments to marine clastic (composed of fragments of pre-existing minerals or rocks) environments during the mid-Holocene marine transgression. Further phases of sea level rise are recorded by layers of mud and silt within the upper peat bed. The radiocarbon dated sequence contains pollen, diatoms, plant remains and bones of ruminants as well as flint artefacts and charcoal. This evidence of human occupation dates from the Mesolithic to the Romano-British periods, with charcoal and weed pollen indicating the influence of early Neolithic clearances.

Hartlepool is a nationally important site for its geology due to its rich palaeoenvironmental records which indicate fluctuations in relative sea level during the Holocene, from approximately 7,000 to 2,000 years BP. It is also a key archaeological site recording phases of land clearance and human occupation. The location of Hartlepool on the fulcrum between areas of crustal uplift to the north and subsidence to the south makes the site particularly important in interpreting relative sea level change during the Holocene.

Saltmarsh

The Tees Estuary supports the largest area of saltmarsh between Lindisfarne and the Humber Estuary. Its saltmarshes show a succession of vegetation types, from pioneer marshes of glassworts Salicornia species and annual sea-brite Suaeda maritima, through common saltmarsh-grass Puccinellia maritima communities, to stands dominated by common couch Elytrigia repens and its hybrid with sea couch Elytrigia atherica, Elytrigia x drucei, at the limit of tidal influence. The common saltmarsh-grass
The most extensive area of saltmarsh occurs on Greatham Creek between the Hartlepool-Billingham railway line and the A178 road bridge. This has recently been enlarged by a managed realignment of the northern sea wall, which was breached in 2014. The new intertidal area is actively developing and currently supports extensive stands of annual sea-bilate and glassworts. The southern bank is also subject to a managed realignment, which will be breached in 2018.

There are three other significant stands of saltmarsh within the site where sediment has accumulated in the shelter of coastal infrastructure: at Seaton Snook, South Gare and the Seal Sands Peninsula. They are currently dominated by pioneer saltmarsh communities.

**Sand dunes**

The site supports an extensive complex of dunes flanking both side of the Tees estuary. It is the largest dune complex between Druridge Bay and Spurn Point. The dunes support a large area of semi-natural vegetation, including the typical succession from strandline through foredunes and mobile dunes to fixed dune grassland, as well as transitions to wetter habitats.

There are two main dune systems: Seaton Dunes to the north of the Tees, and Coatham Dunes to the south. The structure and geomorphology of both systems has been heavily influenced by a long history of human intervention, including sand extraction. Most significant has been the construction of two large breakwaters (North Gare and South Gare), which guard the entrance to the estuary. They have a strong influence on sediment dynamics and result in both dune systems showing a combination of the features of bay and spit dune systems.

Small pockets of strandline vegetation occur throughout the site and occasionally include sea sandwort *Honckenya peploides* and sea rocket *Cakile maritima*. Foredunes of sand couch *Elytrigia juncea* are much more extensive and grade into mobile dunes with stands dominated by both marram *Ammophila arenaria* and lyme-grass *Leymus arenarius*. As conditions ameliorate in the semi-fixed dunes the dominance of marram and lyme-grass wanes and other plants such as red fescue *Festuca rubra*, ragwort *Senecio jacobaea* and common cat’s-ear *Hypochaeris radicata* become prominent. The band of mobile and semi-fixed dunes around the Tees Estuary is quite narrow in comparison with some dune systems due to the relative stability of the coast.

The bulk of the dunes are covered with extensive stands of fixed dune grassland and in some places this has developed on base-rich slag. The dune grassland includes some diverse swards with herbs such as common bird’s-foot trefoil *Lotus corniculatus*, lady’s bedstraw *Galium verum*, fairy flax *Linum catharticum* and common restharrow *Ononis repens* forming a prominent component. They also support a number of scarce and threatened species, including purple milk-vetch *Astragalus danicus*, lesser meadow-rue *Thalictrum minus*, field mouse-ear *Cerastium arvense* and carline thistle *Carlina vulgaris*. In contrast there are also large areas with a coarse sward dominated by false oat-grass *Arrhenatherum elatius*.

There are a number of damp depressions (‘slacks’) in both dune systems, which support a range of wetter vegetation types, usually with a sward dominated by mixtures of red fescue, Yorkshire fog *Holcus lanatus* and creeping bent *Agrostis stolonifera*. Creeping willow *Salix repens* is extremely scarce in the Tees Estuary and so does not form a regular component of the dune slacks in contrast to many dunes systems. A particularly prominent feature of some of the slacks are large and colourful stands of marsh orchids *Dactylorhiza* species and their hybrids. Some of the slacks show affinities with saltmarsh vegetation, with a selection of salt tolerant species such as saltmarsh rush *Juncus gerardii*, sea plantain *Plantago maritima* and sea-milkwort *Glaux maritima*, and are likely to have been derived from the isolation of saltmarsh vegetation by developing dunes. More consistently wet slacks support swamp communities. Fertile feather moss *Drepanoclados polygamous* and flat-sedge *Blysmus compressus* occur in some of the slacks.

**Harbour seal**

Harbour seals *Phoca vitulina* (also known as common seal) have lived at the mouth of the River Tees for hundreds of years but were lost from the estuary for much of the 20th century, principally due to pollution. They recolonised the estuary in the 1980s and have subsequently established a regular breeding colony.
Harbour seals are present in the estuary and the tidal Tees throughout the year, with regular haul outs at Greatham Creek and Seal Sands. Pupping tends to occur in June and July on the intertidal mud of Seal Sands.

**Breeding birds**

The Teesmouth and Cleveland Coast SSSI is nationally important for breeding avocet *Recurvirostra avosetta*, little tern *Sternula albifrons* and common tern *Sterna hirundo*, and for its diverse assemblage of breeding birds associated with sand dunes, saltmarsh and lowland open waters and their margins. Avocets were first confirmed breeding on the estuary in 2008 and numbers have subsequently increased. They nest at a range of sites, with Number 4 Brinefield, Greenabella Marsh and RSPB Saltholme regularly used.

Little terns formerly nested in the site in large numbers but since the late 1990s they have largely relocated to a large colony at Crimdon, just to the north of the Tees in the adjacent Durham Coast SSSI. Small numbers of birds have bred at South Gare in recent years. The site remains a critical foraging area for little tern and supports important pre- and post-breeding gatherings.

The majority of common tern breed on islands and artificial rafts within the RSPB Saltholme reserve, with small numbers scattered at a number of other locations around the estuary. They feed out at sea as well as along the tidal Tees and its main tributaries.

The extensive sand dunes, saltmarsh and wetlands across the site support a diverse assemblage of breeding birds. In addition to avocet and little and common terns, this includes a number of scarce and declining species, such as shoveler *Spatula clypeata*, pochard *Aythya ferina*, ringed plover *Charadrius hiaticula* and little ringed plover *C. dubius*.

**Non-breeding birds**

The extensive areas of open water, grazing marsh and intertidal habitat provide safe feeding and roosting sites for large numbers of waterbirds throughout the year. The site is of special interest for ten species (shelduck *Tadorna tadorna*, shoveler, gadwall *Mareca strepera*, ringed plover, knot *Calidris canutus*, ruff *Calidris pugnax*, sanderling *Calidris alba*, purple sandpiper *Calidris maritima*, redshank *Tringa totanus* and Sandwich tern *Thalasseus sandvicensis*) and an assemblage of over 20,000 non-breeding waterbirds in the non-breeding season. The assemblage comprises a wide variety of waterbirds, including (in addition to the aforementioned species that are reasons for notification in their own right), large numbers of wigeon *Mareca penelope*, lapwing *Vanellus vanellus*, black-headed gull *Chroicocephalus ridibundus* and herring gull *Larus argentatus*. Shoveler, gadwall and ruff are predominantly associated with the extensive freshwater wetlands of the site, while ringed plover, knot, sanderling, purple sandpiper and Sandwich tern mostly use the open coast. Redshank are widespread across the site, but the greatest foraging concentrations occur, along with the largest numbers of shelduck, on the intertidal mud of Seal Sands and Greatham Creek. Seal Sands and Bran Sands are also regularly used by ringed plover and knot.

**Invertebrates**

The extensive complex of sand dunes within the site supports a nationally important invertebrate assemblage, including at least 14 threatened species. The assemblage is diverse and makes use of a wide range of niches, with a strong dependency on open but consolidated sand exposures within which to nest and hunt, as well as on flower-rich swards for nectar and pollen gathering. The assemblage does not include a high number of rarities but is a good example of its type in the north of its range. As such, species such as the tephritid fly *Acanthiophilus helianthi*, whose larvae feed within the capitula of carline thistle, occur towards the northern edge of their British range. The grayling butterfly *Hipparchia semele* is found here and remains a scarce species on this north-eastern coastal strip.
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 document.
Natural England has a duty to inform the owners and occupiers of land within the **Teesmouth and Cleveland Coast (SSSI)** of its views on how to manage the habitats and species of interest for nature conservation. This statement sets out our views on how the SSSI’s special conservation interest can be conserved and enhanced.

Please be aware not all of the management principles outlined in this statement will be equally appropriate to all parts of the SSSI. There may also be other management activities, not outlined here, which could be beneficial to the conservation and enhancement of the features of interest.

Also be aware that this statement does not provide consent for any of the ‘operations requiring Natural England’s consent’. You need to have written consent from Natural England if you want to carry out any of those operations. Natural England welcomes discussion with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the habitats and species of interest, and to ensure that all necessary prior consents are obtained.

**Background**

The Teesmouth and Cleveland Coast SSSI is an extensive mosaic of coastal and freshwater habitats centred on the Tees Estuary. It includes saltmarshes, sand dunes, mudflats, rocky and sandy shores, the tidal Tees and its tributaries, saline lagoons, grazing marshes, reedbeds and freshwater wetlands. This mosaic supports breeding and non-breeding birds, harbour seals and invertebrates, as well as important geological features.

**Management principles**

Different levels of management intervention are required to maintain the special interest of this broad range of habitats, ranging from little or no intervention in some of the intertidal habitats to much more involved management of wet grassland and other wetlands. The general principles guiding management of the important habitat types present within the SSSI are outlined below.

**Estuary, mudflats, sandflats and rocky shore**

The intertidal mud, sand and rocky shores provide important foraging habitat for waterbirds, especially waders, as well as pupping and haulout sites for harbour seal, and when covered at high tide they are used, along with the subtidal estuarial waters, by foraging terns, waterbirds and seals. The coastal rocks at Redcar are an important exposure of Jurassic geology and the sequence of Quaternary sediments in Tees Bay (notably on the foreshore at Hartlepool), including peat and the remains of trees, gives a record of relative sea-level change over the last 7,000 years.

These are natural habitats dominated by wave exposure and tidal processes and require little active management. However, there are a number of general principles that should be followed to maintain their conservation interest. Management should aim to maintain good water and sediment quality. For example, nutrient enrichment can encourage prolific algal growth which smothers mudflats. This can restrict access to the substrate by foraging waterbirds, such as waders and shelduck, and can also affect the invertebrate fauna of the mud. Management should take into account any impacts on the sediment budget within the estuary arising from anthropogenic influences. Certain activities can cause direct damage to intertidal habitats and the interest they support. These include dredging, construction of pipes, heavy machinery crossing the geological features and, in some instances, the introduction of large quantities of beach feed material. Management should aim to avoid or, if necessary, minimise any harmful effects. Management should also take into account the impacts of any anthropogenic structures which may deflect wave energy away from the foreshore.
The birds that use mud and sandflats for feeding and roosting are vulnerable to disturbance from human activities; for example, bait digging, dog walking and wildfowling. Increased disturbance can lead to reduced time spent feeding, or individuals being restricted to areas with a poor food supply. Prolonged and significant disturbance will ultimately reduce the suitability of habitats for birds and can reduce numbers using the site. The management of mud and sandflats should seek to minimise any such disturbance, especially at times when bird populations may be stressed, such as during severe winter weather.

The geological interests at this site are finite and irreplaceable. Any activity which conceals or requires removal of part or all of the geological interest features can cause irreparable damage or destruction. The aim of management is to conserve the resource in the long-term, while permitting scientific usage where possible, which often involves collecting specimens. Collecting of geological specimens is acceptable if undertaken in a responsible manner\(^2\). Where there is any doubt, caution should be applied before removing or allowing any material to be removed.

The Tees Estuary has lost approximately 90% of its intertidal habitats to land claim. In the future this could be compounded by the estuary and coast being constrained from responding to sea level rise and changing sediment regimes. Opportunities should be taken to restore or create areas of intertidal where this is compatible with other interests of the site.

**Saltmarsh**

Saltmarsh vegetation consists of plants adapted to regular immersion by the tides (halophytes) as well as more widespread plant species in the areas less frequently covered by the sea. There is typically a zonation of saltmarsh communities from the pioneer communities at the seaward edge, through to the landward limit. At the upper levels saltmarsh can grade into driftline, swamp and other transitional communities that are only occasionally inundated by the highest tides.

Not all saltmarsh habitats require active management to retain their conservation interest. Where they are managed, often by grazing, it helps to provide a variety of different habitats, particularly important habitats for wintering bird species. If grazing ceases on these sites there may be a loss of botanical diversity in favour of some rank grass species with consequent loss of suitability for foraging and breeding birds. Consideration should also be given to the historical management of the site when considering appropriate grazing regimes. The precise timing and intensity of grazing will vary between sites according to local conditions and requirements, such as, for example, type or availability of stock and the need to avoid disturbing ground nesting birds and trampling their eggs and chicks. On some sites, the aim of grazing should be to create a short turf that can be attractive to over-wintering wildfowl, although grazing density should be reduced and stock excluded in the early summer for the benefit of ground-nesting birds. Overgrazing is likely to result in a reduction in the variety of animal and plant species that the saltmarsh is able to support, as well as a potential impact on the sediments supporting the saltmarsh. The careful reduction of grazing management can change the structure of the vegetation and increase the number of breeding birds without significantly altering the species composition of the plant communities present. Where there has not been a history of grazing, the saltmarsh will be able to maintain itself and grazing-sensitive species are likely to be present, therefore grazing should not be introduced without careful consideration. Saltmarsh vegetation is damaged by the application of nutrients and pesticides and in general their use should be avoided on or adjacent to this habitat. In some instances herbicides may be useful in targeting certain invasive species but should be used with extreme care.

There are a number of factors contributing to saltmarsh change that may need to be taken into consideration. These include coastal erosion as a result of coastal flood-defence works, rising sea-levels and variations in sediment deposition. Land claim for development has also been a problem historically, most often affecting the upper marsh areas that support a greater variety of plant species and any future developments should take into full account any likely impacts on saltmarsh habitats.

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Sand dunes

Sand dunes support a diverse range of species and communities. A process of succession takes from developing embryo dunes which can be ephemeral, into semi-fixed dunes dominated by marram grass, and eventually into fixed dunes. Depending on the location of the dune in the system, different types of specialist vegetation occur. The management of dune systems should take into account the need to maintain the range of habitats and associated species (including invertebrates) reflecting the different stages of succession by maintaining, or restoring where necessary, the natural processes and dynamics of dune development and succession. These principles also incorporate the management required for the nationally important assemblages of sand dune invertebrates.

Management of amenity beaches can affect the early stages of dune formation by removing the strandline that traps blown sand and helps to develop new dune ridges. Dune systems exhibit a degree of dynamism; for example change from blowouts or newly deposited sand, which helps to retain a variety of successional stages within the site. Without management intervention, a mix of dune scrub and woodland may eventually replace the habitats on stable areas. Selective scrub management and grazing or mowing may be necessary. Where light grazing has traditionally been practised, this prevents the invasion of scrub and it should be continued. The effects of non-domestic grazing animals, such as rabbits, should also be taken into account. Other management options that might be appropriate include mowing to remove rank vegetation and in extreme situations can include turf stripping, which is useful for recreating the younger stages of slack formation. There are large stands of sea buckthorn in Seaton Dunes which are damaging the dune vegetation. Management should aim to remove sea buckthorn and allow open dune habitats to develop.

Dune slacks are sensitive to changes in hydrology and drainage works that would affect these areas should be avoided. Sand dune vegetation is damaged by the application of nutrients and pesticides and in general their use should be avoided on or adjacent to these habitats. In some instances herbicides may be useful in targeting certain invasive species but should be used with extreme care.

Many of the vegetation types supported by sand dunes are fragile and vulnerable to erosion from heavy trampling. Where recreational pressures are significant enough to result in the loss of vegetation cover and prevent recovery, it may be necessary to manage access by putting boardwalks in or controlling activities in vulnerable areas such as the foredunes. It may also be necessary to manage access to limit disturbance of breeding birds. Where recreation pressure is not severe, trampling can help to retain diversity on some sites; sandy tracks break up the vegetation sward and provide areas of bare sand thus increasing the diversity of habitats for invertebrates.

Coastal processes are complex and no section of coastline exists in isolation. Processes within a site can be affected by developments beyond the site boundary so it is important to take a broad and integrated approach to coastal management.

Wet grassland

Wet grasslands occur on land that is subject to periodic flooding or has a seasonally high water table and is waterlogged for much of the year. Wet grassland requires active management if it is to retain its conservation interest. Generally, each year’s growth of vegetation must be removed. Otherwise the sward becomes dominated by tall, vigorous grasses and rushes which, together with an associated build-up of dead plant matter, suppress less vigorous species and lower the botanical richness of the sward. Traditionally, this management is achieved by grazing. Cattle are often the preferred stock, being relatively tolerant of wet conditions and able to control tall grasses and rank vegetation. Cattle also tend to produce a rather uneven, structurally diverse sward. However, ponies, or even hill sheep, can be used if necessary. Grazing usually takes place at times between late spring and early autumn, but the precise timing and intensity will depend on local conditions and requirements, such as the need to avoid disturbing ground-nesting birds and trampling their eggs and chicks. Heavy poaching should be avoided but light trampling can be beneficial in breaking down leaf litter and providing areas for seed germination. Agricultural operations in general should be avoided before late June to minimise disturbance to breeding birds or the destruction of nests. An element of managed scrub, both within and fringing a field can be of importance to birds and invertebrates, as can a surrounding hedge.
Partial winter flooding is important in maintaining suitable habitat conditions for wintering birds. A mosaic of winter flooded grassland and permanently un-flooded grassland is desirable, with both temporary and permanent pools present. The maintenance of a mosaic of shallow surface pools and un-flooded areas during the winter will provide roosting and feeding habitat for wintering wildfowl and waders. From April onwards, the area of standing surface water should be reduced to increase the area available for nesting waders and also by concentrating aquatic invertebrates in small pools to provide suitable feeding areas for their young. Some shallow areas of flooding should be maintained until late June to provide patches of bare muddy ground on which the birds and their young can feed. The birds using these features are vulnerable to disturbance, which can cause them to abandon eggs and chicks, or spend less time feeding. Disturbance in the winter can displace large numbers of birds to less suitable habitats with poorer food availability. Management should seek to minimise any harmful disturbance, especially at times when bird populations are under stress, such as severely cold conditions.

Careful maintenance of existing ditches and drains is usually acceptable but abandonment or deepening of ditches can be harmful. Cultivation, increased drainage or the application of pesticides, including herbicides, or fertilizer is likely to be damaging and should be avoided.

**Wetlands**

The varied range of wetlands across the site provide important habitat for breeding and non-breeding birds. Sympathetic management of water levels is necessary for the maintenance of optimal water depths throughout the year. For example, the presence of extensive shallow water and wet marginal substrates will provide the feeding conditions required by a variety of wintering, passage and breeding waterbirds, such as dabbling ducks and waders, whilst other species may require areas of water at least 3 metres in depth. In addition, management should aim to maintain the habitats associated with gently sloping margins that are not too exposed to wave action. For example, the maintenance of structural diversity within and between stands of aquatic vegetation (including emergent, floating and submerged vegetation) provides a number of niches for different bird species.

The protection of appropriate water quality is important for maintaining aquatic habitats and the range of species associated with them. Increases in the amount of nutrients within the waterbody (as a result of pollution from direct discharges and also from diffuse sources resulting from land management practices within the wider catchment) can lead to a loss of aquatic plants in favour of algae, which impacts invertebrates, both of which are important food sources for a range of wetland birds. Changes to the amount of water within the waterbody (by abstracting water from inflowing streams or raising the water level) can also alter nutrient regimes, as well as change the available area of some habitats. Increases in the amount of sediment entering a waterbody may smother stony beds, reduce water depth and increase the amount of nutrients present, and should therefore be avoided. Other activities that can lead to a decrease in aquatic plants in favour of algae include the control or removal of the natural aquatic vegetation, or the introduction of species such as bottom feeding coarse fish that uproot plants and disturb sediments.

Wetlands are susceptible to the introduction of invasive species such as non-native crayfish or plant species, for example Australian swamp stonecrop, and some management may be necessary to control these where they occur.

Other wetland habitats surrounding the open water may require some active management. For example, management should ensure that appropriate nesting and feeding conditions are maintained across the site for breeding, wintering and passage birds. This might include the maintenance of some open areas with unrestricted views and ensuring any sparsely-vegetated islands, bars and margins retain an open character and are kept free of invading vegetation. For example, exposed areas of bare ground should be maintained to provide nesting sites for breeding terns where present. Alternatively, areas of lush, dense marginal and emergent vegetation should be retained where they are important for nesting birds. Large areas of wetland should be kept free from disturbance during the breeding season, as well as during the winter months.

Date notified: 31 July 2018
Annex 3

List of operations requiring Natural England’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 document.
**Operations requiring Natural England’s consent**

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

The operations listed below may damage the features of interest of **Teesmouth and Cleveland Coast SSSI**. Before any of these operations are undertaken you must consult Natural England, and may require our consent.

It is usually possible to carry out many 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 Natural England Area Team, who will give you advice and where appropriate issue a consent. Please help us by using the 'notice form' (provided at notification and available on request) 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 Area Team will suggest alternative ways in which you may proceed, which would enable a consent to be issued. To proceed without Natural England’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.

<table>
<thead>
<tr>
<th>Standard reference number</th>
<th>Type of operation</th>
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<tbody>
<tr>
<td>1.</td>
<td>Cultivation, including ploughing, rotovating, harrowing and re-seeding.</td>
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<tr>
<td>2.</td>
<td>Grazing and alterations to the grazing regime (including type of stock, intensity or seasonal pattern of grazing).</td>
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<tr>
<td>3.</td>
<td>Stock feeding and alterations to stock feeding practice.</td>
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<td>4.</td>
<td>Mowing or cutting vegetation and alterations to the mowing or cutting regime (such as from haymaking to silage).</td>
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<tr>
<td>5.</td>
<td>Application of manure, slurry, silage liquor, fertilisers and lime.</td>
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<tr>
<td>6.</td>
<td>Application of pesticides, including herbicides (weedkillers) whether terrestrial or aquatic, and veterinary products.</td>
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<tr>
<td>7.</td>
<td>Dumping, spreading or discharging of any materials.</td>
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<tr>
<td>8.</td>
<td>Burning and alterations to the pattern or frequency of burning.</td>
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<tr>
<td>9.</td>
<td>Release into the site of any wild, feral, captive-bred or domestic animal, plant, seed or micro-organism (including genetically modified organisms).</td>
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<tr>
<td>10.</td>
<td>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.</td>
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<tr>
<td>11.</td>
<td>Destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungal fruiting bodies, leaf-mould, turf or peat.</td>
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<tr>
<td>12.</td>
<td>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).</td>
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<tr>
<td>13a.</td>
<td>Draining (including the use of mole, tile, tunnel or other artificial drains).</td>
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<tr>
<td>13b.</td>
<td>Modification to the structure of water courses rivers, streams, springs, ditches, dykes, drains), including their banks and beds, as by re-alignment, regrading, damming or dredging</td>
</tr>
<tr>
<td>13c.</td>
<td>Management of aquatic and bank vegetation for drainage purposes.</td>
</tr>
<tr>
<td>Standard reference number</td>
<td>Type of operation</td>
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<tr>
<td>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 (including the installation of new pumps).</td>
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<tr>
<td>15. Infilling or digging of ditches, dykes, drains, ponds, pools, marshes or pits.</td>
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<tr>
<td>16a. Freshwater fishery production and/or management, including sporting fishing and angling and alterations to freshwater fishery production and/or management.</td>
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<tr>
<td>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.</td>
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<tr>
<td>17. Reclamation of land from sea, estuary or marsh.</td>
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<td>18. Bait digging in intertidal areas.</td>
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<tr>
<td>19. Erection and repair of sea defences or coast protection works, including cliff or landslip drainage or stabilisation measures.</td>
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<tr>
<td>20. Extraction of minerals including peat, shingle, hard rock, sand and gravel, topsoil, subsoil, shells and spoil.</td>
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<tr>
<td>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.</td>
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<tr>
<td>22. Storage of materials on sensitive features (notified geological features, sand dunes, saltmarshes and wetland habitats).</td>
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<tr>
<td>23. Erection of permanent or temporary structures or the undertaking of engineering works, including drilling.</td>
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<tr>
<td>24a. Modification of natural or man-made features and clearance of boulders, large stones, loose rock.</td>
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<tr>
<td>24b. Battering, buttressing or grading of geological exposures and cuttings (rock and soil).</td>
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<tr>
<td>26. Use of vehicles or craft.</td>
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<tr>
<td>27. Recreational or other activities likely to damage or disturb the interest features of special interest.</td>
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<tr>
<td>28a. Game and waterfowl management and hunting practices and alterations to game and waterfowl management and hunting practice.</td>
<td></td>
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<tr>
<td>28b. Use of lead shot.</td>
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</tbody>
</table>

**Notes**

i. This is a list of operations appearing to Natural England 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 (as amended).

ii. Where an operation has been granted a consent, licence or permission from another authority, separate consent will not be required from Natural England. However, other authorities are required to consult Natural England 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: 31 July 2018

National Grid reference: NZ535526
Annex 4

Map(s) 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 document.