

B Regulatory and Planning Framework

B.1 Introduction

This appendix outlines the regulatory and planning framework which the licence applications for Area 531 are required to adhere to. Relevant consents, approvals and legislation are summarised in Section B.2. Sections B.3 and B.4 outline planning policy and strategic guidance, and regional and local plans and strategies respectively. Section B.5 outlines the key legislation and planning guidance with respect to marine archaeology.

B.2 Consents, Approvals and Legislation

Obtaining the proposed licences for Area 531 will require a range of consents and approvals under different legislative acts, supported by detailed technical and environmental investigations to inform an Environmental Impact Assessment (EIA), a Water Framework Directive (WFD) Assessment and Appropriate Assessment (AA), if required. The principal consents are summarised in the following paragraphs although there is in addition a wide range of related environmental legislation with which the proposal will need to comply. These have also been specifically identified, as appropriate, in the relevant sections of the main Environmental Statement (ES).

B.2.1 Seabed ownership and marine licence permission

The seabed encompassing Area 531 is owned by The Crown Estate (TCE) who own the mineral rights of the seabed out to 12 nautical miles throughout the majority of UK territorial waters. If a marine licence is granted under the Marine and Coastal Access Act 2009 (MCAA) by the MMO and NRW, agreement to dredge Area 526 will therefore also be required from The Crown Estate.

B.2.2 Marine licence permission

The marine licencing system under the Marine and Coastal Access Act 2009 came into force on 6 April 2011 (see Section B.2.9). A new marine licence will be required before aggregate dredging can commence. Given the cross-border nature of Area 531 two sub-areas have been created, both wholly located within either Welsh or English waters, two licences application will therefore be submitted, one to the Welsh authority Natural Resources Wales (NRW) and one to the English authority the Marine Management Organisation (MMO). In considering the applications, NRW and the MMO will act in accordance with Government policy statements and guidance, and with the principles of sustainable development, namely:

- Achieving a sustainable marine economy;
- Ensuring a strong, healthy and just society;
- Living within environmental limits;
- Promoting good governance; and
- Using sound science responsibly.

B.2.3 Environmental impact assessment

The Marine and Coastal Access Act 2009 and its secondary legislation repealed the EIA and Natural Habitats (Extraction of Minerals by Marine Dredging) Regulations 2007. An EIA for Area 531 will be required in accordance with the Marine Works (EIA) Regulations 2007 (as amended). This EIA has

included the identification and consideration of all potential impacts on human beings, fauna and flora, soil, water, air and climate, as well as material assets and the cultural heritage. It has also assessed the interaction between the above elements and, in addition, identified any measures that are required to prevent, reduce or offset any significant adverse effects which may be caused by the marine aggregate dredging.

The newly amended Environmental Impact Assessment (EIA) Directive (2014/52/EU) entered into force on 15 May 2014 to simplify the rules for assessing the potential effects of projects on the environment (EC, 2016).

B.2.4 Appropriate assessment for habitats regulations appraisal

Where a development project, such as the proposed aggregate extraction from Area 526, is located close to, or within, an area designated or proposed under the Birds and Habitats Directives (European Sites) and/or the Ramsar Convention, the requirements of the Conservation of Habitats and Species Regulations 2017 (SI 2017/1012) (the "Habitats Regulations") apply. In essence, this requires the lead Competent Authority, in this case NRW and the MMO for Welsh and English waters respectively, to determine whether the proposed works are likely to have a significant effect on a European Site and, if so, to undertake an Appropriate Assessment (AA) of the implications of the proposals in light of the site's conservation objectives. The AA takes account of the in-combination effects of the proposal on the protected areas in association with other relevant projects and plans. Where it cannot be ascertained that a project will not have an adverse effect on site integrity, the project can only proceed if it can be demonstrated that there are no more suitable (less damaging) alternatives and that there are Imperative Reasons of Overriding Public Interest (IROPI) sufficient to justify the project. In certain circumstances, the Secretary of State may be required to ensure that adequate compensation has been provided to protect the overall coherence of the Natura 2000 network.

An AA signposting document is provided in Appendix C.

B.2.5 Protected species

Various species of marine animals are protected from being killed, injured or disturbed under provisions in the Habitats Directive and Section 9(4) and Schedule 5 of the Wildlife and Countryside Act 1981 (WACA) (as amended). Of particular relevance to Area 531 are seabirds (including gulls and terns), dolphins, porpoises and pinnipeds (see Sections 10 and 11 of the main ES).

The Habitats Directive, Article 12, obliges Member States to prohibit deliberate disturbance of Annex IV species in their natural range, particularly during the period of breeding, rearing, hibernation and migration. Guidance on the interpretation of Article 12 requirements has recently been issued by the European Commission. With respect to disturbance, this emphasises the need for a case-by-case approach and points out that:

'it would also seem logical that for disturbance of a protected species to occur a certain level of negative impact which is likely to be detrimental must be involved'. The guidance also states that 'the intensity, duration and frequency of repetition of disturbances are important parameters when assessing the possible impact of disturbance on a species'.

For a significant effect on the local distribution or abundance of a species to occur, disturbance would need to produce more than a transient effect. For this to occur, it seems likely that the disturbance would have to be repeated over a period of time. For example, frequent or prolonged underwater noise from seismic surveys in an area of sea could cause the abandonment of the area by cetaceans. If

there are no alternative sites nearby for the cetaceans to move to, the disturbance could be considered to have affected the local distribution or abundance of the population.

The Habitats Directive is transposed into UK Law by the Habitats Regulations. Section 43 of the Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 of the Regulations (i.e. European Protected Species). Paragraph 2 of Section 43 specifies that disturbance of animals includes in particular any disturbance which is likely:

- To impair their ability:
 - to survive, to breed or reproduce, or to rear or nurture their young; or
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- To affect significantly the local distribution or abundance of the species to which they belong.

Section 9(4) of the WACA makes it an offence to intentionally or recklessly disturb dolphins, whales or basking sharks subject to a defence that the act was the incidental result of a lawful operation and could not reasonably have been avoided. Natural England and Countryside Council for Wales (now NRW) have produced detailed guidance on the application of these provisions (Natural England and CCW, 2007).

If protected species are likely to be deliberately disturbed by development operations, the activity can be licenced by NRW or the MMO under the overriding public interest purpose of the Regulations if the necessary criteria are met (Natural England and CCW, 2007). If the degree of deliberate disturbance is considered to fall below the threshold for the Regulations, no licence under this legislation is necessary, but the disturbance may still be an offence under the WACA. In this case, no licence can be issued, as there is no appropriate purpose, and the developer must consider whether the 'incidental result' defence is applicable.

Given the level of protection of these species, potential disturbance impacts to protected species under the Habitats Regulations and WACA have been assessed in this EIA in accordance with Natural England and Countryside Council for Wales/NRW guidance (Natural England and CCW, 2007). The assessment is presented in Section 7 of the main ES, which includes necessary measures that will be undertaken to avoid or mitigate any significant impacts.

B.2.6 Invasive species

The European Union Regulation (No 1143/2014) on the prevention and management of the introduction and spread of invasive alien species (IAS) entered into force in 2015. A key instrument of the Regulation is the List of IAS of Union concern, known as 'the Union list'. Species that are included in this list are subject to a number of measures including prevention, early detection and rapid eradication of new invasions, and management of invasions that are already widespread.

The principal UK legislation dealing with non-native species is Section 14 of the WACA. Section 14 makes it illegal to release or allow to escape into the wild any animal which is not ordinarily resident in Great Britain and is not a regular visitor to Great Britain in a wild state, or is listed in Schedule 9 to the WACA. Schedule 9 contains both animals and plants of which Section 14 applies.

Section 23 of the Infrastructure Act 2015, amended the Section 14 and Schedule 9 of the WACA, by introducing Schedule 9A. Schedule 9A allows both the English and Welsh governments to introduce Species Control Agreements and Orders, which enable rapid responses to eradicate any Schedule 9 species. Guidance on how to implement agreements and orders has been produced by the English and Welsh Government (Defra, 2017 and Welsh Government, 2017, respectively).

B.2.7 Water Framework Directive

The Water Framework Directive (WFD) (2000/60/EEC) establishes a framework for the management and protection of Europe's water resources. It is implemented in England and Wales through the Water Environment (WFD) (England and Wales) Regulations 2017 (the Water Framework Regulations). The overall objective of the WFD is to achieve "good ecological and good chemical status" in all inland and coastal waters by 2015 (now working towards revised objectives for 2021) unless alternative objectives are set or there are grounds for time limited derogations. For examples, where pressures preclude the achievement of good status (e.g. navigation, coastal defence) in heavily modified water bodies (HMWB), the Directive provides that a lesser objective of "good ecological potential" is set. There is also a general "no deterioration" provision to prevent deterioration in status.

Compliance with chemical status objectives of the WFD is assessed in relation to environmental quality standards (EQSs) for a specified list of 'priority' and 'priority hazardous' substances. These substances were first established by the Priority Substances Directive (PSD) (2008/105/EC) which entered into force in 2009. The PSD set objectives, amongst other things, for the reduction of these substances through the cessation of discharges or emissions. As required by the WFD and PSD, a proposal to revise the list of priority (hazardous) substances was submitted in 2012. Subsequently, an updated PSD (2013/39/EU) was published in 2013, identifying new priority substances, setting EQSs for those newly identified substances, revising the EQS for some existing substances in line with scientific progress and setting biota EQSs for some existing and newly identified priority substances. The PSD is transposed into UK legislation through the WFD (Standards and Classification) Directions (England and Wales) 2015, which entered into force in September 2015.

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Area 531 lies within the Severn Lower transitional water bodies. The ES assesses the potential impact dredging activity may have on this water body and the subsequent potential effect on the objectives of the WFD (see Appendix D).

B.2.8 Bathing Waters Directive

The Bathing Waters Directive (76/160/EEC) set out water quality standards to protect the environment at bathing waters throughout the bathing season. The mandatory standards used by the European Commission to determine compliance of bathing waters with the Directive were microbiological parameters - total and faecal coliforms, and three physico-chemical parameters - surface-active substances, mineral oils and phenols. To comply with these standards, bathing waters were expected not to exceed values of 10,000 total coliforms per 100 ml and 2000 faecal coliforms per 100 ml in 95% of samples. The Bathing Water Directive also set more stringent guideline microbiological standards that Member States must endeavour to observe - no exceedance of 500 total coliforms per 100 ml

and 100 faecal coliforms per 100 ml in 80% of water quality samples and 100 faecal streptococci per 100 ml in 90% of samples taken.

The revised Bathing Water Directive (2006/7/EC) has since replaced the original Directive, with the first monitoring results reported against the revised Directive in 2015. The overall objective of the revised Directive remains the protection of public health whilst bathing, but it also offers an opportunity to improve management practices at bathing waters and to standardise the information provided to bathers across Europe. It aims to set more stringent water quality standards and also puts a stronger emphasis on beach management and public information. The revised Directive has updated the way in which water quality is measured, focusing on fewer microbiological indicators, and setting different standards for inland and coastal bathing sites, including:

- Tighter microbiological standards to be met by 2015;
- Two microbiological parameters - Intestinal Enterococci and *Escherichia coli*;
- Water quality classification based on 3 or 4 years monitoring data, using 95 or 90 percentiles;
- A change from measuring compliance using the pass/fail approach to classification based on four classes: poor/sufficient/good/excellent;
- The ability to supply more information so the public can choose where to bathe; and
- The requirement for all bathing waters to be classed as 'sufficient' by 2015 (Environment Agency, 2013).

Although there is no need to obtain permission for the proposals under the Bathing Waters Directive, the ES has determined the implications of dredging activity in Area 531 on nearby bathing waters (see Section 6 of the main ES).

B.2.9 Marine Strategy Framework Directive

The aim of the EU Marine Strategy Framework Directive (MSFD) (adopted in June 2008) is to protect more effectively the marine environment across Europe. It aims to achieve good environmental status (GES) of marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. It enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use.

The MSFD constitutes the vital environmental component of future maritime policy, designed to achieve the full economic potential of oceans and seas in harmony with the marine environment. It establishes European Marine Regions on the basis of geographical and environmental criteria. Each Member State is required to develop strategies for their marine waters.

A Statutory Instrument transposing the MSFD into UK law came into force on 15 July 2010, creating a clear legal framework to enable the MSFD to be implemented in the UK. In 2012, the UK produced 'Part One of the Marine Strategy', containing information on the first three elements of the MSFD. In 2014, 'Part Two', which focuses on a co-ordinated monitoring programme for the ongoing assessment of GES, was published. 'Part Three' outlines a programme of measures that will contribute to the achievement and maintenance of GES, and was published in 2015. The MSFD does not state a specific programme of measures that Member States should adopt to achieve GES, except for the establishment of Marine Protected Areas (MPAs). The MSFD does however outline 11 high level descriptors of GES in Annex I of the Directive. With respect to the UK, key requirements of the Directive and associated timeframes are clearly set out.

There are eleven descriptors of GES, including seafloor integrity, biological diversity and introduction of energy (e.g. noise). Good environmental status will be assessed at the level of the European Marine Regions, of which there are two around the UK (Atlantic and North Sea).

B.2.10 Marine and Coastal Access Act 2009

The Marine and Coastal Access Act 2009 aims to ensure clean, healthy, safe, productive and biologically diverse oceans and seas, by putting in place better systems for delivering sustainable development of marine and coastal environments. The Act created a type of Marine Protected Area (MPA) called a Marine Conservation Zone (MCZ) which can be designated anywhere in English and Welsh inshore and UK offshore waters to protect nationally important marine wildlife, habitats, geology and geomorphology. The wider study area falls within the Finding Sanctuary and the MCZ Project Wales regional areas. A number of MCZs have now been designated within both regions. The first in English waters was Lundy Island which was designated in 2012 while Skomer was the first Welsh site, designated in 2012. Two tranches of MCZs have now been through consultation and subsequently designated, resulting in 50 designated MCZs currently existing around the UK. A third and final tranche of MCZs was announced in June 2018, whereby 41 new MCZs are being proposed to complete the network (and new features added to 12 existing MCZs designated in the first and second tranches). Consultation on the third tranche closed in July 2018.

The nearest MCZ to Area 531 is over 55 km away (see Section 7.2.3 of the main ES).

In addition to marine nature conservation, other areas of relevance with regards to the Marine and Coastal Access Act include marine planning, marine licencing and fisheries management. The UK Marine Policy Statement published in March 2011 provides a framework for preparing Marine Plans in order to create a more integrated approach to marine management and ensure that marine resources are used in a sustainable way. The new marine licencing regime was introduced on 6 April 2011, which includes all forms of dredging including marine mineral extraction (see previous section on Marine Licence Permission). Sea Fisheries Committees (SFCs) were also replaced by Inshore Fisheries and Conservation Authorities (IFCAs) in April 2011 to conserve marine ecosystems and help achieve a sustainable and profitable fisheries sector.

Due to the cross-border nature of the Severn Estuary, responsibilities for fisheries management are shared between organisations. In England, the northern boundary of the Devon and Severn IFCA District covers the Bristol Channel and Severn Estuary up to the border between England and Wales. Inshore fisheries management in Wales is primarily the responsibility of the Welsh Government which has an inshore fisheries team with responsibilities including monitoring, control and surveillance of sea fishing activities (Welsh Government, 2016a). In addition, the MMO operates a satellite-based vessel monitoring system (VMS) that supports the relevant authorities in monitoring, control and surveillance operations (Welsh Government website).

B.2.11 Natural Environment and Rural Communities (NERC) Act 2006

The Natural Environment and Rural Communities (NERC) Act came into force in October 2006. In addition to establishing Natural England as the body responsible for conserving, enhancing, and managing England's natural environment, the Act also made amendments to the both the Wildlife and Countryside Act 1981 and the Countryside and Rights of Way (CROW) Act 2000. For example, it extended the CROW biodiversity duty to public bodies and statutory undertakers, and altering enforcement powers in connection with wildlife prosecution. In addition to this, the NERC Act contains a number of additional measures designed to help streamline delivery and simplify the legislative framework, such as changes to the remit and constitution of the Joint Nature Conservation

Committee (JNCC), reconstitution of the Inland Waterways Amenity Advisory Council, and improving the governance arrangements for the National Parks.

Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

There are 943 species of principal importance and 56 habitats of principal importance included on the S41 list; those located in the coastal and marine zone are listed in Table B.1 and Table B.2 below.

Table B.1 Marine and coastal species listed as being of principal importance in England

Species	
Birds	
<i>Anser albifrons subsp. albifrons</i>	European Greater White-fronted Goose
<i>Branta bernicla subsp. bernicla</i>	Dark-bellied Brent Goose
<i>Cygnus columbianus subsp. bewickii</i>	Bewick's Swan (Tundra Swan)
<i>Larus argentatus subsp. argenteus</i>	Herring Gull
<i>Limosa limosa subsp. limosa</i>	Black-tailed Godwit
<i>Numenius arquata</i>	Curlew
<i>Puffinus mauretanicus</i>	Balearic Shearwater
<i>Sterna dougallii</i>	Roseate Tern
Fish	
<i>Alosa alosa</i>	Allis Shad
<i>Alosa fallax</i>	Twaite Shad
<i>Ammodytes marinus</i>	Lesser Sandeel
<i>Anguilla anguilla</i>	European Eel
<i>Aphanopus carbo</i>	Black Scabbardfish
<i>Centrophorus granulosus</i>	Gulper Shark
<i>Centrophorus squamosus</i>	Leafscaper Shark
<i>Centroscymnus coelolepsis</i>	Portuguese Dogfish
<i>Cetorhinus maximus</i>	Basking Shark
<i>Clupea harengus</i>	Herring
<i>Coryphaenoides rupestris</i>	Roundnose Grenadier
<i>Dalatias licha</i>	Kitefin Shark
<i>Dipturus batis</i>	Common Skate
<i>Gadus morhua</i>	Cod
<i>Galeorhinus galeus</i>	Tope Shark
<i>Hippocampus guttulatus</i>	Long-snouted Seahorse
<i>Hippocampus hippocampus</i>	Short-snouted Seahorse
<i>Hippoglossus hippoglossus</i>	Atlantic Halibut
<i>Hoplostethus atlanticus</i>	Orange Roughy
<i>Isurus oxyrinchus</i>	Shortfin Mako
<i>Lamna nasus</i>	Porbeagle Shark
<i>Lampetra fluviatilis</i>	River Lamprey
<i>Lophius piscatorius</i>	Sea Monkfish
<i>Merlangius merlangus</i>	Whiting
<i>Merluccius merluccius</i>	European Hake
<i>Micromesistius poutassou</i>	Blue Whiting

Species	
<i>Molva dypterygia</i>	Blue Ling
<i>Molva molva</i>	Ling
<i>Osmerus eperlanus</i>	Smelt (Sparling)
<i>Petromyzon marinus</i>	Sea Lamprey
<i>Pleuronectes platessa</i>	Plaice
<i>Prionace glauca</i>	Blue Shark
<i>Raja undulata</i>	Undulate Ray
<i>Reinhardtius hippoglossoides</i>	Greenland Halibut
<i>Rostroraja alba</i>	White or Bottlenosed Skate
<i>Salmo salar</i>	Atlantic Salmon
<i>Salmo trutta</i>	Brown/Sea Trout
<i>Salvelinus alpinus</i>	Arctic Charr
<i>Scomber scombrus</i>	Mackerel
<i>Solea solea</i>	Common Sole
<i>Squalus acanthias</i>	Spiny Dogfish
<i>Thunnus thynnus</i>	Blue-fin Tuna
<i>Trachurus trachurus</i>	Horse Mackerel
Invertebrates	
<i>Amphianthus dohrnii</i>	Sea-fan Anemone
<i>Anisodactylus poeciloides</i>	Saltmarsh Short-spur
<i>Atrina fragilis</i>	Fan Mussel
<i>Colletes halophilus</i>	Sea-aster Colletes Bee
<i>Edwardsia ivelli</i>	Ivell's Sea Anemone
<i>Edwardsia timida</i>	Timid Burrowing Anemone
<i>Eunicella verrucosa</i>	Pink Sea-fan
<i>Funiculina quadrangularis</i>	Tall Sea Pen
<i>Gammarus insensibilis</i>	Lagoon Sand Shrimp
<i>Halicystus auricula</i>	Kaleidoscope Jellyfish
<i>Heleobia stagnorum</i>	Lagoon Spire Snail
<i>Leptopsammia pruvoti</i>	Sunset Cup Coral
<i>Lucernariopsis campanulata</i>	A Stalked Jellyfish
<i>Lucernariopsis cruxmelitensis</i>	St John's Jellyfish
<i>Mitella pollicipes</i>	Gooseneck Barnacle
<i>Nematostella vectensis</i>	Starlet Sea Anemone
<i>Ostrea edulis</i>	Native Oyster
<i>Pachycordyle navis</i>	Brackish Hydroid
<i>Palinurus elephas</i>	Crayfish, Crawfish or Spiny Lobster
<i>Tenellia adspersa</i>	Lagoon Sea Slug
<i>Triops cancriformis</i>	Tadpole Shrimp
<i>Victorella pavidia</i>	Trembling Sea-mat
Mammals and turtles	
<i>Balaenoptera acutorostrata</i>	Minke Whale
<i>Balaenoptera borealis</i>	Sei Whale
<i>Balaenoptera physalus</i>	Fin Whale
<i>Caretta caretta</i>	Loggerhead Turtle
<i>Delphinus delphis</i>	Common Dolphin
<i>Dermochelys coriacea</i>	Leatherback Turtle
<i>Eubalaena glacialis</i>	Northern Right Whale
<i>Globicephala melas</i>	Long-finned Pilot Whale
<i>Grampus griseus</i>	Risso's Dolphin
<i>Lagenorhynchus acutus</i>	Atlantic White-sided Dolphin
<i>Lagenorhynchus albirostris</i>	White-beaked Dolphin
<i>Mesoplodon bidens</i>	Sowerby's Beaked Whale
<i>Mesoplodon mirus</i>	True's Beaked Whale

Species	
<i>Orcinus orca</i>	Killer Whale
<i>Phoca vitulina</i>	Common Seal (Eastern Atlantic Harbour Seal)
<i>Phocoena phocoena</i>	Harbour Porpoise
<i>Physeter catodon</i>	Sperm Whale
<i>Tursiops truncatus</i>	Bottlenosed Dolphin
<i>Ziphius cavirostris</i>	Cuvier's Beaked Whale
Plants	
<i>Anotrichium barbatum</i>	Bearded Red Seaweed
<i>Atriplex pedunculata</i>	Pedunculate Sea-purslane
<i>Carex maritima</i>	Curved Sedge
<i>Corrigiola litoralis</i>	Strapwort
<i>Cruoria cruoriaeformis</i>	A Red Seaweed
<i>Dermocorynus montagnei</i>	A Red Seaweed
<i>Hordeum marinum</i>	Sea Barley
<i>Lithothamnion corallioides</i>	Coral Maërl
<i>Matthiola sinuata</i>	Sea Stock
<i>Padina pavonica</i>	Peacock's Tail
<i>Phymatolithon calcareum</i>	Common Maërl
<i>Puccinellia fasciculata</i>	Borrer's Saltmarsh-grass
<i>Spartina maritima</i>	Small Cord-grass

Table B.2 Marine and coastal habitats listed as being of principal importance in England

Category	Habitat Name
Wetland	Coastal and floodplain grazing marsh
Coastal	Coastal saltmarsh
	Coastal sand dunes
	Coastal vegetated shingle
	Intertidal mudflats
	Maritime cliff and slopes
	Saline lagoons
Marine	Blue mussel beds
	Estuarine rocky habitats
	Fragile sponge and anthozoan communities on subtidal rocky habitats
	Horse mussel beds
	Intertidal boulder communities
	Intertidal chalk
	Maërl beds
	Mud habitats in deep water
	Peat and clay exposures
	<i>Sabellaria alveolata</i> reefs
	<i>Sabellaria spinulosa</i> reefs
	Seagrass beds
	Sheltered muddy gravels
	Subtidal chalk
	Subtidal sands and gravels
	Tide-swept channels

B.2.12 Environment (Wales) Act 2016

The Environment (Wales) Act 2016 provides the legislative framework for the sustainable management of natural resources. Central to this is building resilience into natural systems and communities, in order to tackle the challenges faced now and into the future. The Act includes a provision for NRW to report on the current state of natural resources, ecosystems and the benefits they provide through the publication of a State of Natural Resources Report (SoNaRR). The SoNaRR highlights the condition and extent of Wales' natural resources, their ability to respond to pressures including climate change, and their ability to provide benefits for society (CCC, 2016).

The Act also requires Welsh Ministers to prepare a National Natural Resource Policy (NNRP) which will draw on the evidence from SoNaRR to set out the priorities for the sustainable management of natural resources at a national level. It will outline how the sustainable management of Wales' natural resources will provide benefits to society and the economy as well as the environment, supporting the goals outlined in the Wellbeing of Future Generations (Wales) Act (CCC, 2016).

Section 7 of the Act (Biodiversity lists and duty to take steps to maintain and enhance biodiversity) replaces the duty in Section 42 of the NERC Act 2006. It noted that priority lists for species and habitats would duly be published. Marine and coastal species and habitats have been extracted from the lists available on the Wales Biodiversity Partnership Website, and are listed in Table B.3 and Table B.4.

Table B.3 Marine and coastal species listed as being of principal importance in Wales

Species	
Cnidaria	
<i>Eunicella verrucosa</i>	Pink sea-fan
<i>Haliclystus auricula</i>	A stalked jellyfish
<i>Lucernariopsis campanulata</i>	A stalked jellyfish
Coastal and marine Birds	
<i>Anser albifrons subsp. flavirostris</i>	Greenland greater Whitefronted Goose
<i>Branta bernicula subsp. bernicula</i>	Dark-bellied Brent Goose
<i>Charadrius hiaticula</i>	Ringed Plover
<i>Cygnus columbianus subsp.</i>	Bewick's Swan
<i>Larus argentatus subsp. argenteus</i>	Herring Gull
<i>Larus ridibundus</i>	Black-headed Gull
<i>Limosa lapponica</i>	Bar-tailed Godwit
<i>Numenius arquata</i>	Eurasian Curlew
<i>Pluvialis apricaria</i>	Golden Plover
<i>Puffinus mauretanicus</i>	Balearic Shearwater
<i>Sterna dougallii</i>	Roseate Tern
Fish	
<i>Alosa alosa</i>	Allis shad
<i>Alosa fallax</i>	Twaite shad
<i>Ammodytes marinus</i>	Sand-eel
<i>Anguilla anguilla</i>	European eel
<i>Clupea harengus</i>	Herring
<i>Dipturus batis</i>	Common skate
<i>Gadus morhua</i>	Cod
<i>Galeorhinus galeus</i>	Tope shark
<i>Hippocampus guttulatus</i>	Long snouted seahorse
<i>Lamna nasus</i>	Porbeagle shark
<i>Lophius piscatorius</i>	Sea monkfish

Species	
<i>Merlangius merlangus</i>	Whiting
<i>Merluccius merluccius</i>	European hake
<i>Molva molva</i>	Ling
<i>Osmerus eperlanus</i>	Smelt (Sparling)
<i>Palinurus elephas</i>	Crayfish, crawfish or spiny lobster
<i>Petromyzon marinus</i>	Sea lamprey
<i>Pleuronectes platessa</i>	Plaice
<i>Prionace glauca</i>	Blue shark
<i>Raja brachyura</i>	Blonde ray
<i>Raja clavata</i>	Thornback ray
<i>Raja undulata</i>	Undulate ray
<i>Rostroraja alba</i>	White or Bottlenosed skate
<i>Salmo salar</i>	Atlantic salmon
<i>Salmo trutta</i>	Brown / Sea trout
<i>Salvelinus alpinus</i>	Arctic char
<i>Scomber scombrus</i>	Mackerel
<i>Solea solea</i>	Sole
<i>Squalus acanthias</i>	Spiny dogfish
<i>Squatina squatina</i>	Angel shark
<i>Trachurus trachurus</i>	Horse mackerel
Invertebrates	
<i>Alkmaria romijni</i>	Tentacled lagoon worm
<i>Arctica islandica</i>	Icelandic cyprine or Oceanquahog
<i>Atrina fragilis</i>	Fan mussel
<i>Edwardsia timida</i>	Burrowing anemone
<i>Ostrea edulis</i>	Native oyster
<i>Tenellia adspersa</i>	Lagoon sea slug
Mammals and turtles	
<i>Balaenoptera acutorostrata</i>	Minke whale
<i>Balaenoptera physalus</i>	Fin whale
<i>Caretta caretta</i>	Loggerhead turtle
<i>Cetorhinus maximus</i>	Basking shark
<i>Delphinus delphis</i>	Common dolphin
<i>Dermochelys coriacea</i>	Leatherback turtle
<i>Globicephala melas</i>	Long-finned pilot whale
<i>Grampus griseus</i>	Risso's dolphin
<i>Hyperodon ampullatus</i>	Northern bottlenose whale
<i>Lagenorhynchus acutus</i>	Atlantic white-sided dolphin
<i>Lagenorhynchus albirostris</i>	White-beaked dolphin
<i>Megaptera novaeangliae</i>	Humpback whale
<i>Orcinus orca</i>	Killer whale
<i>Phocoena phocoena</i>	Harbour porpoise
<i>Stenella coeruleoalba</i>	Striped dolphin
<i>Tursiops truncatus</i>	Bottlenose dolphin
<i>Ziphius cavirostris</i>	Cuvier's beaked whale
Plants	
<i>Anotrichium barbatum</i>	Bearded red seaweed
<i>Cruoria cruoriaeformis</i>	A red seaweed
<i>Dermocorynus montagnei</i>	A red seaweed
<i>Lithothamnion corallinoides</i>	Coral maerl
<i>Padina pavonica</i>	Peacock's tail
<i>Phymatolithon calcareum</i>	Common maerl

Table B.4 Marine and coastal habitats listed as being of principal importance in Wales

Category	Habitat Name
Littoral Rock	Intertidal boulder communities
	<i>Sabellaria alveolata</i> reefs
	Estuarine rocky habitats
Littoral sediment	Intertidal boulder communities
	Intertidal mudflats
	Seagrass beds
	Sheltered muddy gravels
	Peat and clay exposures
Sublittoral rock	Coastal saltmarsh
	Fragile sponge & anthozoan communities on subtidal rocky habitats
	Carbonate reefs
Sublittoral sediment	Tidal swept channels
	Subtidal mixed muddy sediments
	Mud habitats in deep water
	<i>Musculus discors</i> beds
	Blue mussel beds
	Horse mussel beds
	Maerl beds
	Saline lagoons
	Subtidal sands and gravels
Supralittoral rock	Maritime cliff and slopes
Supralittoral sediment	Coastal sand dunes
	Coastal vegetated shingle
Improved grassland	Coastal and floodplain grazing marsh

B.2.13 The Well-being of Future Generations (Wales) Act 2015

The Well-being of Future Generations (Wales) Act 2015 aims uphold and promote sustainable development and well-being by ensuring that public bodies think more about the long term, work more effectively with people, communities and each other, prevent problems and take a more collaborative approach (Welsh Government, 2016b). A number of public bodies (including NRW) are legally bound to the Act; to make sure these bodies are all working towards the same vision, the Act puts in place seven well-being goals (see Section 17). Public bodies listed in the Act must maximise their contribution to achieving each of the well-being goals by setting objectives and subsequently taking all reasonable steps (in exercising its functions) to meet those objectives. The objectives set by the body depend on its role and regional coverage.

NRW states that their responsibilities involve protecting and improving people's health and well-being as well as assuring the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future (NRW, 2016). NRW therefore contribute to the Acts objectives by promoting the provision and improvement of opportunities for access to the countryside and open spaces, improving resilience to flooding and protecting the environment from emissions to air, land and water (NRW, 2015).

B.3 Planning Policy and Strategic Guidance

As part of the application for dredging at Area 531, all relevant national, regional and local planning policy and guidance has been taken fully into account. A review of the key aspects of this policy and guidance, in so far as it relates Area 531, is provided in this section.

The summary provided below comprises a review of the most relevant marine and planning policy documents to Area 531 which should be viewed as current as at the date of the submission of this ES.

B.3.1 UK Marine Policy Statement

The UK Marine Policy Statement (HM Government, 2011) contributes to the achievement of sustainable development in the UK marine area comprising the Area 531. It provides the framework for preparing Marine Plans and taking decisions affecting the marine environment, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby:

- Promote sustainable economic development;
- Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects;
- Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and
- Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues.

The Statement recognises the importance of the UK marine aggregate resource stating that:

"the extraction of marine dredged sand and gravel should continue to the extent that this remains consistent with the principles of sustainable development, recognising that marine aggregates are a finite resource and in line with the relevant guidance and legislation".

The Marine Policy Statement considers marine aggregates to present reduced impacts on local communities compared to the extraction of land-won aggregates, in particular with regard to the extraction process and transportation (HM Government, 2011). Wider social and economic benefits include skilled, stable employment and the generation of income through the construction industry supply chain. The MPS states that a marine licence or other regulatory approval to dredge should only be issued if the decision maker is content that the proposed dredging is environmentally acceptable. Potential adverse impacts are listed to include changes to the hydrodynamic regime that may alter coastal processes; loss of seabed habitat and heritage assets; impacts on fisheries and secondary impacts to marine life and habitat associated with sediment plumes; disturbance of fish spawning, migration routes, nursery and overwintering areas; overspills from dredging vessels and impacts on geodiversity.

B.3.2 Planning Policy Wales

The ninth edition of the Planning Policy Wales (PPW) was published in November 2016, with a tenth under consultation. It sets out the land use planning policies of the Welsh Government and is supplemented by a series of Technical Advice Notes (TANs) and Minerals Technical Advice Notes (MTAN). The PPW document aims to translate the Welsh Government's commitment to sustainable development into the planning systems so that it can play an appropriate role in moving towards sustainability. Local planning authorities must prepare a local development plan (LDP). This LDP will be the statutory development plan for the area and will supersede the existing development plan.

The following sections of the PPW are of relevance to the Area 531 application: 4 – Planning for Sustainability; 5 – Conserving and Improving Natural Heritage and the Coast; 7 – Economic Development; 12 – Infrastructure and Services; 13 – Minimising and Managing Environmental Risks and Pollutions and 14 – Minerals.

It should be noted here that planning law only applies within the territory of local authorities which, as a general rule, extends only to the low water mark.

B.3.3 National Planning Policy Framework - England

The National Planning Policy Framework (NPPF) was first published in March 2012, and last revised in February 2019. The NPPF sets out the Government's planning policies for England and how these are expected to be applied. It does not contain specific policies for nationally significant infrastructure projects or waste projects, as particular considerations apply for such projects. Planning authorities must take the NPPF into account in the preparation of local and neighbourhood plans. At the heart of the NPPF is a presumption in favour of sustainable development, which 'should be seen as a golden thread running through both plan-making and decision-taking'.

The following five sections of the current NPPF are of particular relevance to the Area 522 Proposal: 1 - Building a strong, competitive economy; 14 - Meeting the challenge of climate change, flooding and coastal change; 15 - Conserving and enhancing the natural environment; 16 - Conserving and enhancing the historic environment; and 17 - Facilitating the sustainable use of minerals.

Paragraph 166 of the NPPF provides the following specific policies that are relevant to the planning and licensing of marine aggregate operations:

'In coastal areas, planning policies and decisions should take account of the UK Marine Policy Statement and marine plans. Integrated Coastal Zone Management should be pursued across local authority and land/sea boundaries, to ensure effective alignment of the terrestrial and marine planning regimes..'

Further, the updated NPPF contains a section on 'Facilitating the sustainable use of minerals'. The introductory paragraph to this section (Paragraph 203) reads as follows:

'It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.'

Paragraph 204 includes a provision for policies to '

'safeguard existing, planned and potential sites for: the bulk transport, handling and processing of minerals; the manufacture of concrete and concrete products; and the handling, processing and distribution of substitute, recycled and secondary aggregate material.'

Paragraph 207 of the NPPF requires that planning authorities should plan for a steady and adequate supply of aggregates by:

'Preparing an annual Local Aggregate Assessment, either individually or jointly, to forecast future demand, based on a rolling average of 10 years' sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources).'

It should again be noted here that planning law only applies within the territory of local authorities which, as a general rule, extends only to the low water mark.

B.3.4 Marine Plan(s)

Draft Welsh National Marine Plan

In December 2017, the Welsh Government consulted upon a draft version of the Welsh National Marine Plan (WNMP) that covers Welsh inshore and offshore waters (Welsh Government, 2017). The WNMP will take a 20-year outlook and will provide important information and guidance to those who wish to undertake development in Welsh marine areas, and for decision makers. With regard to marine aggregates, the following sector objective was envisaged in the consultation draft plan version:

'To continue to use marine aggregates resources at a rate and in locations which best meet our current and future needs by ensuring adequate reserves are provided for through long-term licences'.

As part of the draft WNMP, sector specific policies are split into two categories, supporting and safeguarding policies. The policies related to marine aggregates are listed in Table B.5.

Table B.5 Welsh draft marine policies related to marine aggregates Marine and coastal species listed as being of principal importance in England

Policy	Wording
AGG_01: Aggregates (supporting)	<i>Proposals for aggregate extraction in Strategic Resource Areas are encouraged within any permitted tonnage limits that may be defined for that area. Relevant public authorities should, in liaison with the sector and other interested parties, collaborate to understand opportunities for the sustainable use of:</i> ▪ aggregate Strategic Resource Areas; and ▪ wider marine aggregate natural resources; <i>in order to support the sustainable growth of the aggregate sector through marine planning.</i>
AGG_02: Aggregates (safeguarding)	<i>Proposals potentially affecting areas where a marine licence and production agreement for aggregate extraction has been granted or formally applied for should not be authorised unless compatibility with the existing, authorised or proposed aggregate activity can be satisfactorily demonstrated or there are exceptional circumstances. Compatibility should be achieved, in order of preference, through:</i> a) avoiding adverse impacts on those activities; and/or b) minimising impacts where they cannot be avoided; and/or c) mitigating impacts where they cannot be minimised. <i>If adequate compatibility cannot be achieved, proposals should present a clear and convincing justification for proceeding.</i>
AGG_03: Aggregates (safeguarding)	<i>Proposals potentially affecting areas where an exploration or option agreement has been offered or is in place for aggregate extraction should not be authorised unless compatibility with the existing, authorised or proposed aggregate activity can be satisfactorily demonstrated. Compatibility should be achieved, in order of preference, through:</i> a) avoiding adverse impacts on those activities; and/or b) minimising impacts where they cannot be avoided; and/or c) mitigating impacts where they cannot be minimised. <i>If adequate compatibility cannot be achieved, proposals should present a clear and convincing justification for proceeding.</i>

Policy	Wording
AGG_04: Aggregates (safeguarding)	<i>Proposals potentially affecting Strategic Resource Areas for aggregate extraction should demonstrate how they, in order of preference:</i> <i>a) avoid adverse impacts on future potential aggregate extraction in those areas; and/or</i> <i>b) minimise impacts where they cannot be avoided; and/or</i> <i>c) mitigate impacts where they cannot be minimised; and</i> <i>should present a clear and convincing justification for proceeding where (a-c) are not possible.'</i>

The aggregates sector policies in the draft Welsh National Marine Plan (WNMP) (Welsh Government, 2017) set out the Welsh Government's draft strategic level policy in relation to the extraction of marine sand and gravel for aggregates from Welsh waters. The draft WNMP recognises that '*marine aggregates play a strategically important role in the national and local supply of aggregates predominantly for use in construction projects*'.

The policies within the draft WNMP build upon the South Wales interim Marine Aggregates Dredging Policy (iMADP). iMADP has been reviewed alongside the development of the WNMP 'to reflect the additional controls introduced under a marine licence and application process'. Once the final WNMP has been adopted (anticipated for late 2019), iMADP will be withdrawn.

Marine Plans in England

The English Government is also developing a suite of marine plans for eleven separate areas. Each plan will provide a long-term (20 years) view of activities in that area and will be reviewed every three years. The English part of Area 531 is within the South West Inshore Marine Plan area. In February 2018, the MMO engaged the public on products arising from Iteration 2; its Iteration 3 engagement commenced in January 2019. Draft plan consultation (and publication) is expected for late 2019 / early 2020.

B.3.5 National and Regional guidelines for aggregates provision in England 2005-2020

The national and regional guidelines are presented in a technical note which sets out revised aggregate provision in England for the period between 2005 and 2020, replacing those published in 2003 (see Department for Communities and Local Government, 2009). The note also indicates how the guidelines should be taken into account in the planning process, and outlines arrangements for future monitoring and review. The 2005-2020 guidelines assume that the contribution of marine sand and gravel to the overall aggregate industry in the UK will be 16 Mt, and increase of 14% from the 2003 guidelines.

When compared to the previous 2003 guidelines, this document envisages an increase in the assumed contribution of marine sand and gravel from 14 Mt per annum to 16 Mt (a 14% increase).

B.3.6 Marine Minerals and Good Practice Guidance

Previously, the Marine Minerals Guidance documents provided guidance on the 'extraction by dredging of sand, gravel and other minerals from the English seabed', and the 'control of marine minerals dredging' (ODPM, 2002; MFA, 2008). However, these documents have since been withdrawn.

As a replacement for the original Marine Minerals Guidance documents, in 2017, BMAPA and The Crown Estate, published a Good Practice Guidance (BMAPA and The Crown Estate, 2017), which was produced in consultation with Defra, the MMO, Natural England, JNCC, Historic England and Cefas. This summarises the procedures and measures which have been developed over the years with regard to planning, licensing, environmental assessment, monitoring, mitigation and management, in order to protect the environment and other seabed interests and to ensure the sustainability of the industry. These procedures were summarised in Section 3.5 of the main ES.

The Guidance outlines that the dredging industry works to such clearly defined licensing, operational, and management frameworks in order to:

- Ensure the long-term sustainable management of the available resources;
- Maximise the extraction of available resources and minimise waste in individual dredging areas;
- Minimise the footprint of the activity on the seabed;
- Minimise the adverse environmental impacts of the aggregate extraction process; and
- Mitigate the effects of aggregate dredging on other users of the seabed.

The Guidance also provides background on the importance of the English aggregates dredging industry with regard to the construction industry, flood and coastal defence measures and major infrastructure projects. The regulatory framework is also outlined, and dredging operations explained. Potential physical, biological, social and economic impacts are furthermore summarised.

B.4 Regional and Local Plans and Strategies

B.4.1 River Basin Management Plans

Under the WFD, River Basin Management Plans have been drawn up for river basin districts across England and Wales with the aim of improving water in rivers, estuaries, coasts and aquifers. The study area falls within the South West, Severn and Western Wales River Basin Management Plans (RBMPs), which were updated in 2015 and 2016 (the WFD requires that the plans are reviewed and updated every 6 years). Further information on the WFD and RBMPs is provided in the Water Quality section, Section 6 of the main ES, and Appendix D.

B.4.2 Shoreline Management Plans

Shoreline Management Plans (SMPs) are non-statutory documents intended to both inform and be supported by the statutory planning process. They provide a large-scale assessment of the risks associated with coastal evolution and present a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner. It assesses likely changes over the next 100 years, taking account of the condition of existing defences. The intention of an SMP is to develop a broad coast defence strategy that is technically, economically and environmentally sustainable.

The initial Severn Estuary SMP was published in 2001 by the Severn Estuary Coastal Group (SECG) with the second SMP (SMPII) published in 2010 (Atkins, 2010). The SMPII boundary extends from Lavernock Point to Anchor Head and undertook high level assessments in order to provide a general picture of change, and does not focus on local issues.

B.4.3 Severn Estuary Partnership

The Severn Estuary Partnership (SEP) is an independent estuary-wide project set up by Local Authorities, the Environment Agency and the countryside agencies. It forms a partnership between all organisations and individuals who have declared an interest in a coordinated approach of the management of all activities on the Severn Estuary (including the Inner Bristol Channel).

The Strategy for the Severn Estuary 2017-2027 was published by the SEP in 2017 and streamlined the original version of 2001 (SEP, 2017). The revised and streamlined 2017 Strategy provides a framework to inform more coordinated policy development, practices and strategies for the Severn Estuary. As marine planning develops in both England and Wales, the Strategy document will help ensure a more integrated approach for the Severn Estuary Region, particularly throughout the time of uncertainty in European governance. The Strategy also provides context to inform and support decision-making for a wide range of proposed estuary developments, including those related to maritime uses, minerals and marine renewable energy. It states that:

'The estuary provides a multitude of resources for industries around its shores through transport, trade and materials, energy generation and much more. Ports, aggregates, chemical processing companies and power stations, as well as many others, all play a vital role in the economy and social structure of the area.'

B.4.4 Biodiversity Action Plans

UK BAP priority species and habitats were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). The original lists of UK BAP priority species and habitats were created between 1995 and 1999, and were subsequently updated in 2007, following a 2-year review of UK BAP processes and priorities, which included a review of the UK priority species and habitats lists. This review takes into account emerging new priorities and new information that has been gathered since the original lists were generated. Following the review, the number of priority species increased from less than 600 to 1,150, and the number of priority habitats increased from 49 to 65.

Due to devolution and the creation of country-level biodiversity strategies, much of the work previously carried out under the UK BAP is now focussed at a country level. Additionally, international priorities have changed: the framework particularly sets out the priorities for UK-level work to support the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its five strategic goals and 20 'Aichi Targets', agreed at the CBD meeting in Nagoya, Japan, in October 2010; and the EU Biodiversity Strategy (EUBS), launched in May 2011. As a result the 'UK Post-2010 Biodiversity Framework' was published in July 2012 and has succeeded the UK BAP.

The UK BAP priority species and habitats have remained and been used to develop statutory lists of priority species and habitats in Wales as required under Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006, as well as the Environment (Wales) Act 2016. English and Welsh species and habitats of principal importance in the coastal and marine zones have been listed above in Table B.1 to Table B.4.

The Wales Biodiversity Partnership (WBP) aims to provide leadership and an expert steer on priorities for each action on biodiversity and ecosystems in Wales which is administered through the Wales Biodiversity Strategy Board (WBSB) and the WBP working groups.

Various habitats and species requiring BAPs have been identified by the relevant local authorities and incorporated into major Local BAPs (LBAPs) within the wider study area, including Bristol, Newport,

Monmouthshire, Cardiff, North Somerset and South Gloucestershire (amongst others). The purpose of a Local BAP is 'to focus resources to conserve and enhance biodiversity by means of local partnerships, taking account of both national and local priorities'. These plans include actions to address the needs of the UK priority habitats and species in the local area, together with a range of other plans for habitats and species that are of local importance or interest. The plans are designed to involve local people and organisations through the practical delivery of biodiversity conservation and aim to promote public awareness and contribute to international conservation efforts.

B.5 Marine Archaeology - Key Legislation and Planning Guidance

Please refer to Appendix E, the archaeological desk-based assessment, for related legislation and guidance.

B.6 References

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