Department for Transport

National Policy Statement for Ports

Presented to Parliament pursuant to section 9(8) of the Planning Act 2008

July 2026

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1. Introduction

Background

1.1 Throughout history, British sea ports have developed, thrived and changed, supporting the free movement of people, and the trade in goods and commodities which is the basis for our national prosperity. As travel and trade have changed over time, and as ships and their cargoes have developed in size, character and technology, so the nature and the distribution of ports around our coasts and rivers has altered, creating new opportunities for local, regional and national growth.

1.2 Many of the changes have been unpredictable. But there are some constants. The need for safe harbours, with built defences interacting with and changing the natural environment. The need for unimpeded access, with water deep enough for the largest vessels expected to use the port requiring dredging on the sea-bed. The risks of noise, emissions and safety hazards associated with loading and unloading cargoes. And the impacts on our transport networks of the inland movement of goods to and from ports by road or rail.

1.3 The planning system is a key to the future development of ports. This revised National Policy Statement (NPS) updates and enhances the NPS designated in 2012, updating for changes in circumstance and advances in policy, again offering greater certainty both to those who propose new developments and to people who wish to make representations on those proposals. Specifically, it supports the Government's priorities, particularly for growth and green energy, as set out below.

Role of this National Policy Statement in the planning system

1.4 This NPS sets out the Government's policy on the need for new port infrastructure, considering the current place of ports in the national economy, the available evidence on future demand and the options for meeting future needs. It explains to planning decision-makers, applicants and others the approach they should take to proposals, including the main issues which, in the Government's view, will need to be addressed to ensure that future development is fully sustainable and resilient, as well as the weight to be given to the need for new port infrastructure and to the positive and negative impacts it may bring. It stresses that ports are critical to the Government's economic growth mission due the UK's reliance on imports, but also have an

important role in transitioning to a green economy, and making Britain a green energy superpower.

1.5 This statement is part of the planning system established under the Planning Act 2008 (PA08), and provides the framework for decisions on proposals for new port development promoted through development consent order (DCO) applications.

1.6 It is also an important and relevant consideration for the Marine Management Organisation (MMO), established under the Marine and Coastal Access Act 2009 (MCAA09), which decides other aspects of port development, (Harbour Orders and Marine licences, notably for dredging), and may be material for local planning authorities, *e.g*. when deciding on port-related planning applications under the Town and Country Planning Act 1990. It is important that the planning system generally should take full account of government policy on ports where relevant and/or material and as set out here.

1.7 This NPS applies, wherever relevant to associated development, such as road and rail links, for which consent is sought alongside that for the principal development. Non-ports associated development should be considered on a case-by-case basis, using appropriate assessment methods consistent with this NPS and with applicable official guidance.

1.8 Other NPSs, such as the National Networks National Policy Statement (NNNPS) and the Energy NPSs, may contain relevant considerations for some decisions on ports applications for development consent. Should a significant impact upon the Strategic Road Network be expected as a result of the port development, the applicant should consult the NNNPS. The applicant may see benefit in undertaking an assessment having regard to the NNNPS. This assessment should set out how the port development would enable the objectives of the national road network (as set out within section 3 of the NNNPS) to be achieved and to allow National Highways to undertake its role as Strategic Highways Company in operating, maintaining and improving the Strategic Road Network.

1.9 Under the PA08 the Secretary of State must also have regard to any local impact report submitted by a relevant local authority, any relevant matters prescribed in regulations, the Marine Policy Statement (MPS)[1] and any applicable marine plan (which seeks to reconcile competing demands for marine space including environmental needs), and any other matters which the Secretary of State thinks are both important and relevant to its decision.

1.10 The PA08 sets out the thresholds for Nationally Significant Infrastructure Projects (NSIPs) in the ports sector. Under s.24, applications for development consent will require development consent as NSIPs if the estimated incremental annual capacity exceeds:

- 500,000 teu[2] for a container terminal;

[1] www.gov.uk/government/publications/uk-marine-policy-statement

[2] teu: twenty-foot equivalent unit

- 250,000 movements for roll-on roll off (ro-ro);
- 5 million tonnes for other (bulk and general) traffic; or
- a weighted sum equivalent to these figures taken together.

1.11 The Secretary of State may also designate an application with capacity below the relevant threshold(s) or relating to port infrastructure not referred to in the PA08, if he/she considers that the project is of national significance (s.35 PA08).

1.12 Where the application consists of development which is of the type described in this NPS, the Secretary of State must decide the application in accordance with this NPS unless it is satisfied that to do so would:

- lead to the UK being in breach of its international obligations;
- be in breach of any statutory duty;
- be unlawful;
- result in adverse impacts of the development outweighing its benefits;
- be contrary to regulations about how the decisions are to be taken[3].

1.13 Where development consent is required for ports infrastructure which is not of a type described in this NPS (*e.g.* because it has been directed into the regime by a section 35 direction), the application must be decided in accordance with the decision making criteria set out in s.105 PA08.

Duration

1.14 The revised NPS will remain extant until it is withdrawn, amended or replaced.

Territorial extent

1.15 This NPS covers England and reserved trust ports in Wales. At present the latter category is effectively limited to Milford Haven.

1.16 The Scottish Government has devolved responsibilities for ports and has developed its own ports policy. Ports policy in Northern Ireland is also devolved. Statistical material, including forecasts of port freight traffic, covers Scotland and Northern Ireland, as well as England and Wales, and helps to inform ports policy there. The Channel Islands and Dependent Territories operate their own ports policies and are not covered in the forecasts.

1.17 Any reference below to the United Kingdom (UK) or Great Britain should be read as without prejudice to the devolved authority of the Scottish Government, the Welsh

[3] s.104 Planning Act 2008

Government, the Northern Ireland Assembly and Dependent Territories in ports matters.

Appraisal of sustainability

1.18 The appraisal of sustainability (AoS) of the policy set out in this NPS can be found on the Department for Transport (DfT) website. This describes analysis of policy alternatives, supporting the broad approach in the NPS, and assesses how the policies set out in this NPS seeks to ensure that consented applications will satisfy the requirements of sustainable development. The revised AoS sets out the effects of amendments included in the final version of this NPS.

1.19 The AoS incorporates a Strategic Environmental Assessment in so far as relevant to a policy statement of this nature.

1.20 A separate Habitats Regulations Assessment (HRA) of this NPS has also been undertaken, but this does not preclude the need for assessment at individual project level. Where necessary, such assessment will be an essential step towards ensuring compliance of each application with the habitats Regulations.

2. Government policy and the need for new infrastructure

The essential role of ports in the UK economy

2.1 Of all international freight traded with the UK in 2024, around 85%[4] of the UK's trade in goods by weight was moved by sea. This includes UK imports of food, energy and other critical goods, with DEFRA reporting that the UK imports around 40% of its food.

2.2 In 2019, UK ports were estimated to contribute 30,000 direct jobs and £2.2bn to the economy (Gross Value Added – GVA)[5].

2.3 UK ports perform strongly compared to European competitors. In 2023, the UK handled the fifth largest amount of port freight, ahead of countries such as Germany, Belgium, and France.

2.4 UK ports comprise a variety of company, trust and municipal ports, all operating on commercial principles, independently of government, and very largely without public subsidy. The company ports sector operates 15 of the largest 20 ports by tonnage and around two-thirds of the UK's port freight traffic. Much of the tonnage handled is concentrated in a small number of ports, with the top 15 ports accounting for almost 80% of the UK's total traffic.

2.5 Ports have been defined by the Department for Business and Trade as a foundational industry, essential to the facilitation and promotion of the Government's Growth Mission.

Freight and bulk movements

2.6 Most goods are transported in trucks and trailers which roll on and off ('ro–ro'), or in large containers. Specialised equipment at terminals conveys grain and other dry

[4] DfT analysis of HMRC trade data in *Port Freight Annual Statistics 2024*: www.gov.uk/government/statistics/port-freight-annual-statistics-2024/port-freight-annual-statistics-2024-overview-of-port-freight-statistics-and-useful-information. Pipeline traffic has been reclassified in this calculation.

[5] Maritime UK

goods and liquids ('non unitised flows') from tankers to on-shore pipelines. In the last 20 years freight traffic through UK ports decreased by around 18%, dominated by declines in traditional bulk goods such as coal and crude oil. In 2023 ports in England and Wales handled 352.1 million tonnes of goods, out of a UK total of 434.9 million tonnes, representing about 95% of the total volume of UK trade and 75% of its value.

2.7 For an island economy, there are limited alternatives available to the use of sea transport for the movement of freight and bulk commodities. Air freight is often used for high-value items and express deliveries, and the Channel Tunnel has a significant role in freight. But these alternatives are constrained by the volumes that can viably be carried by air, by the capacity of the rail links through the Tunnel and, in the case of aviation, by cost and environmental disadvantages. Consequently, shipping will continue to provide the only effective way to move most freight in and out of the UK, and the provision of sufficient sea port capacity will remain an essential element in ensuring sustainable growth in the UK economy.

Energy supplies

2.8 Ports have a vital role in the import and export of energy supplies, including oil, liquefied natural gas, biomass and innovative energy commodities such as ammonia and hydrogen, in the construction and servicing of offshore energy installations and in supporting terminals for oil and gas pipelines. Port handling needs for energy, including for fuel bunkering, have changed as the mix of our energy supplies change and particularly as renewables play an increasingly important part as an energy source. The Government's mission to make the UK a green energy superpower means that the importance of ports' role will increase even further. Ensuring security of energy supplies through our ports will be an essential consideration, and ports will need to be responsive both to changes in different types of energy supplies needed (and to the need for facilities to flexibly support the development and maintenance of offshore renewable sites) and to possible changes in the geographical pattern of demand for fuel, including storage of novel bunker fuels.

2.9 The Government has set ambitious targets for the expansion of offshore wind generation. Port facilities to support construction, operation and maintenance of offshore wind turbines and associated equipment will be essential to realise these ambitions. It is important that UK ports should be able to invest with confidence in such facilities, in time to meet the needs of the windfarm providers. They should not be disadvantaged as compared with overseas ports, by any avoidable delay or impediment in the planning system.

2.10 Allowance should be made for the fact that wider issues too can delay projects, including but not limited to project pipeline visibility, high upfront infrastructure costs, non-standardised technologies used (*e.g*. steel *vs*. concrete substructures, size of wind turbines), labour shortages and supply chain limitations.

2.11 The Government's ambitions include floating offshore wind installations as a significant component of the overall targets for offshore wind overall. For deploying floating turbines, ports will need deeper water, greater heavy lift capacities and greater laydown space. This will require new, bespoke port facilities.

Tourism and leisure

2.12 Sea ports play an important role in the tourism and leisure industries, supporting many different forms of economic and social activity, including passenger cruise liners, Channel ferries, sea-going yachts and dinghies.

2.13 UK airports dominate international personal transport with 196 million passengers travelling on international flights in 2022 and there were a further 17 million passenger journeys through the Channel Tunnel[6], but international sea passengers continue to represent a significant proportion of the total, with 23 million travelling to and from UK ports in 2023.[7]

2.14 The cruise sector brings economic benefits to the UK, particularly coastal communities, as ships can bring large numbers of passengers visiting these areas. Before the pandemic, the cruise industry was one of the fastest growing sectors of tourism worldwide with the UK cruise market measured as contributing £9.4 billion directly and indirectly to the UK economy, supporting 82,000 jobs in 2017[8]. Since the pandemic, this industry has already shown strong signs of recovery and resumption of growth.

Wider economic benefits

2.15 Ports continue to play an important part in local and regional economies, further supporting our national prosperity. In addition to some 30,000 people estimated in 2019 to be working directly for ports and some 61,000 in shipping in the UK, employment in the UK maritime sector as a whole was estimated to be 227,000[9]. The ports' role is absolutely central to the smooth flow of international trade on which the nation relies.

2.16 By bringing together groups of related businesses within and around the estate, ports also create a cluster effect, which supports economic growth by encouraging innovation and the creation and development of new business opportunities. And new investment, embodying latest technology and meeting current needs, will tend to increase overall sector productivity.

Government policy for ports

2.17 It is the Government's policy, in view of the critical role of ports in the wider supply chain and national freight network, to:

- encourage sustainable port development to enable long-term forecast growth in volumes of imports and exports by sea with a competitive and efficient port industry capable of meeting the needs of importers and exporters cost effectively and in a timely manner, thus contributing to long-term economic growth and prosperity;

[6] Source: UK international short sea and Channel Tunnel passengers, 2011.
[7] Source: Port Freight Statistics 2010.
[8] Source: Maritime UK *State of the Maritime Nation 2019*.
[9] Source: Maritime UK.

- allow judgments about when and where new developments might be proposed to be made on the basis of commercial factors by the ports industry or port developers operating within a free market environment; and
- ensure all proposed developments satisfy the relevant legal, environmental and social constraints and objectives, as set out in national regulations including those implementing the UK's international treaty obligations.
- It is Government's policy, in order to ensure sustainable development, that new port infrastructure and major upgrades to existing facilities[10].
- contribute to local employment, regeneration and development;
- ensure competition and security of supply;
- provide the opportunity, where required, to accommodate Defence-related uses and activities;
- preserve, protect and improve marine, coastal and terrestrial biodiversity, consistent with the mitigation hierarchy;
- minimise emissions of greenhouse gases from port related development and contribute to wider emissions policy in the transport network;
- be well designed, functionally and environmentally;
- be adapted to the impacts of climate change;
- minimise use of greenfield land;
- provide high standards of protection for the natural environment;
- ensure that access to and condition of heritage assets are maintained and improved where necessary;
- ensure the needs of freight and logistics supply chains including HGV parking are supported; and
- enhance connectivity and access to ports and to the jobs, services and social networks they create, including for the most disadvantaged;
- manage the risks to and from flood risk and coastal change;
- protect communities from pollution, particularly those who are most vulnerable to its impacts.

2.18 Wherever possible, port development should:

[10] Not in any priority order.

- be an engine for economic growth;
- support sustainable transport by offering more efficient transport links, improved connectivity, opportunities for modal shift, transition to alternative low and zero carbon fuels with lower external costs;
- support sustainable development by providing additional capacity for the development of renewable energy;
- encourage efficient use of land; and
- in order to meet these outcomes, the port may find value in undertaking a masterplan.

2.19 These fundamental policies enable the Government to meet its external obligations and, at the same time, reflect the fact that the ports industry has continued to prove itself capable of responding to demand commercially, despite a period of sustained turbulence in patterns of commodity demand and disruption to supply-chains.

2.20 Moreover, effective infrastructure planning helps to enhance the quality of outcome that might not be realised with reliance on market forces alone. To ensure effective infrastructure planning, ports may benefit from undertaking and maintaining a masterplan, especially if they are a port of significant size or planning transformational change.

2.21 The underlying policies mentioned above are intended to support the fundamental aim of improving economic, social and environmental welfare through sustainable development and encouraging economic growth across the country. They recognise the essential contribution to the national economy that international and domestic trade makes. Economic growth is supported by trade but must be aligned with environmental protection, and social improvement wherever possible. The policies set out above aim to ensure that future port development supports all these objectives.

2.22 In addition to the Government's priority of supporting economic growth, this statement takes full account of the Government's wider policies relating to climate change, both through mitigation and adaptation. It does so by recognising the contribution that port developments can make through good environmental design and by their position in the overall logistics chain. International and domestic shipping and inland transport will be subject to other policies and measures, addressing the issues more directly than planning decisions for new development. Paras 3.73ff discuss mitigation of impacts from port development, while paras 3.90ff address adaptation.

2.23 The importance of achieving good design in port development is underlined at various points in the statement, with reference to various types of impacts discussed in section 4. Good design is fundamental to avoiding, mitigating or compensating the adverse effects of development, notably safety and environmental, as well as to make best use of available land. Aesthetic considerations should be subordinate, but should be given weight where they do not conflict with operational, safety and wider environmental needs. Projects covered by the National Policy Statement will present

very different design challenges in terms of their specific visual impacts and the need to incorporate engineering, safety and operational considerations.

The Government's assessment of the need for new infrastructure

2.24 The total need for port infrastructure depends not only on overall demand for port capacity but also on the need to retain the flexibility that ensures that port capacity is located where it is required, including in response to any changes in inland distribution networks and ship-call patterns that may occur, and on the need to ensure effective competition and resilience in port operations, as well as the increasing importance of 'green' energy and renewables. These factors are considered further below.

Demand forecasts

2.25 Over time and notwithstanding temporary economic downturns, increased trade in goods and, to a lesser extent, in commodities, can be expected as a direct consequence of the Government's policies to support economic growth in sympathy with the environment, and to achieve rising prosperity. With 95% of all goods in and out of the UK moving by sea and very limited alternatives, the majority of this increase will need to move through ports around the coast of the United Kingdom.

2.26 Forecasts of demand for port capacity in the period up to 2050 were published by the Department for Transport in 2025 (Figure 1). The central GB-wide forecasts suggested an overall increase by 2050 over a 2023 base[11] of 8%, broken down as follows by mode-of-appearance:

- 37% in containers, from 61M to 83M tonnes (excluding transhipment);
- 70% in ro-ro traffic, from 91M to 155M tonnes;
- 62% in dry bulk traffic, from 84M to 136M tonnes; and
- a decline of 63% in liquid bulk traffic, from 169M to 62M tonnes.

[11] Available on gov.uk website.

Figure 1. Total port freight tonnage, 2000-2050.

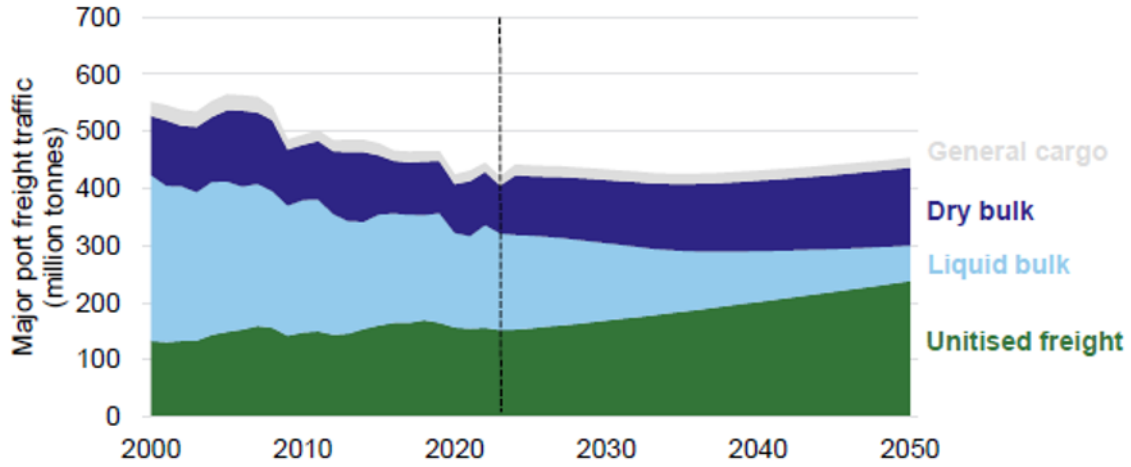
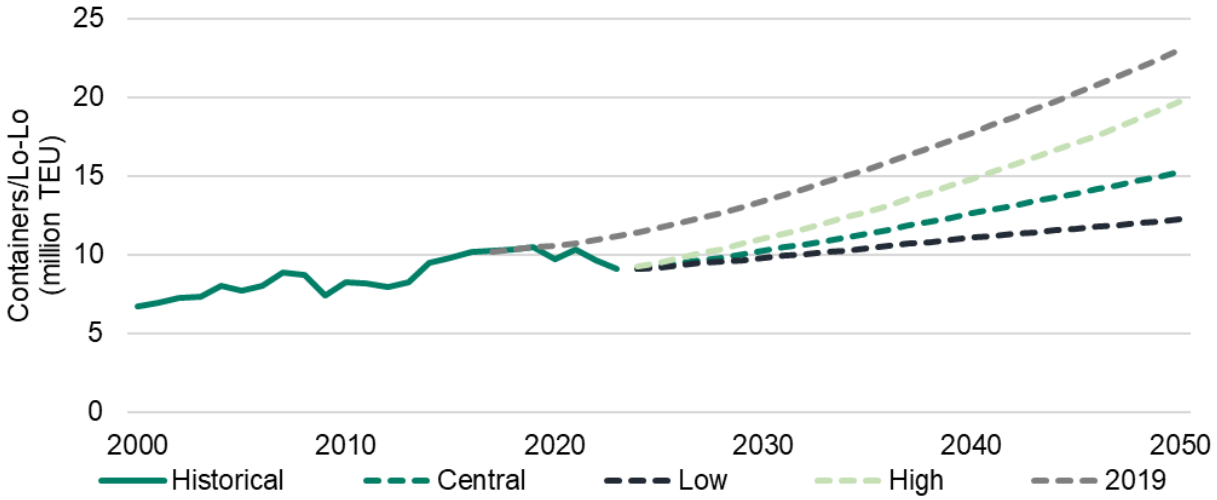


Figure 2: LoLo Port Freight (thousand teu[12])



2.27 In addition, the UK is a global leader for offshore wind with around 15GW of operational capacity. Offshore wind is a key element of achieving clean power by 2030, securing home grown energy, attracting investment into the UK and creating high quality jobs. The Government is committed to radically increasing deployment of offshore wind as a core part of our mission to make Britain a clean energy superpower, delivering clean power by 2030 and accelerating to net zero. To support increased investment in the renewable energy sector further, the Government is establishing Great British Energy. Its mission is to drive clean energy deployment, working with the private sector to encourage greater investment in clean and renewable energy, including offshore wind, and hydrogen as a fuel.

2.28 The manufacturing and assembly of large-scale equipment to serve the offshore energy sector within port sites in the UK is set to see significant increase in demand

[12] teu: twenty-foot equivalent unit, the standard measure of container capacity. Around two-thirds of containers are 40 feet long, and are classed as 2 teu each. Forecast increase in container tonnage over the period is 40,000 to 94,000 tonnes (136%).

as a result. There will also be a large increase in demand for port capacity needed to provide installation, operation and maintenance facilities for this scale of deployment.

2.29 The Government may from time to time commission new port freight demand forecasts to be published on its behalf. These new forecasts would then replace the 2025 DfT forecasts, and the commentary in the preceding paragraphs may be subject to some interpretative change in light of them.

2.30 The purpose of the national forecasts will, unless expressly stated otherwise as part of a further review of the NPS under section 6 of the Act, remain as only to help set the context of overall national capacity need, alongside competition and resilience considerations as set out below.

2.31 Several container port developments retain extended consents which, if completed as planned, would provide substantial additional container throughput:

- Bathside Bay (Harwich): consent granted March 2006 and subsequently extended would provide capacity for an estimated 1.7 million teu per annum, though this development is not expected to proceed for some years;

- London Gateway: completion of all the berths provided for in the consent granted June 2007 and subsequently extended would allow total capacity at the Port for an estimated 3.5 million teu per annum;

- Teesport: consent granted February 2008 and subsequently extended would, if built, provide capacity for a further 1.5 million teu;

- Bristol: consent granted September 2010 and subsequently extended would, if built, allow an estimated further 1.5 million teu.

2.32 If all the above developments were to be built, aggregate container capacity would be broadly in line with the pre-recession forecast for demand over the next 20 years or so. However, the extent, and speed, with which these developments proceed in reality will depend upon the commercial judgements of the developers at the time. There may therefore be opportunities for other developers to bring forward proposals for alternative or additional developments that satisfy demand that these consented developments are not meeting, as well as a continuing requirement for further new container capacity to meet anticipated longer-term growth. Thus, the capacity needed to provide for competition, innovation, flexibility and resilience can be delivered by the market and is likely to exceed what might be implied by a simple aggregation of demand nationally.

2.33 As noted earlier, demand for port capacity to service manufacture, operation and maintenance of offshore windfarms will be substantial, especially in the short term in support of operational offshore developments. Because of the Government's renewables targets and in light of the policies set out in the Renewable Energy NPS (EN-3), there is a strong public interest in enabling ports to service these developments. Benefits from such developments may include social and economic advantages from attracting business to the UK that would otherwise locate abroad, as well as avoiding transport by road of abnormal loads.

2.34 It is (and will remain so in the context of any new forecasts) Government policy that it is for each port to take its own commercial view and its own risks on its particular traffic forecasts.

Location of new capacity

2.35 Capacity must be in the right place if it is effectively and efficiently to serve the needs of import and export markets. The location and capacity of ports in England has changed over time, in response to changes in global markets, in the size and nature of ships, and in the transport networks which support them. There are inbuilt commercial incentives to make efficient and flexible use of existing port estates.

2.36 The largest container and ro–ro terminals are in the South-East, while the west coast has naturally been best placed to meet the needs of transatlantic and Irish traffic. Consents for container developments have been in or near deepwater ports in the main coastal and estuarial locations. But it is not possible to anticipate future commercial opportunities. New shipping routes and technologies may emerge. The needs of trading partners may change as their economic circumstances develop.

2.37 It is Government Policy to encourage capacity to be provided at a wide range of facilities and locations, including enhancement of existing facilities, to provide the flexibility to match the changing demands of the market, possibly with traffic moving from existing ports to new facilities generating surplus capacity:

2.38 It is not government policy to dictate where port development should occur. Port development must be responsive to changing commercial demands, and the Government considers that the market is the best mechanism for getting this right, with developers bringing forward applications for port developments where they consider them to be commercially viable.

2.39 The DfT demand forecasts therefore do not attempt to predict the locations where demand would manifest, partly because this is dependent on changes in the market, which are difficult to predict now.

Competition

2.40 UK ports compete with each other, as well as with neighbours in continental Europe for certain types of traffic. This includes as primary destinations for long haul shipping, as stops for ships making shorter journeys to and from Europe along UK coasts, and as bases for terminals and associated infrastructure.

2.41 It is government policy to encourage such competition. Competition drives efficiency and lowers costs for industry and consumers, so contributing to the overall competitiveness of the UK economy.

2.42 Effective competition requires sufficient spare capacity to ensure real choices for port users. It also requires ports to operate at efficient levels, which is not the same as operating at full physical capacity. Demand fluctuates seasonally, weekly and by time of day, and some latitude in physical capacity is needed to accommodate such

fluctuations. The most efficient form of operation also depends on location – the configuration, availability and cost of land – and the availability and cost of labour.

2.43 For these reasons it is government policy to encourage the total port capacity in any sector to exceed forecast overall demand if the ports sector is to remain competitive and resilient.

2.44 The Government believes the port industry and port developers are best placed to assess their ability to obtain new business and the level of any new capacity that will be commercially viable, subject to developers satisfying decision-makers that the likely impacts of any proposed development have been assessed and addressed.

Freeports

2.45 A range of Freeports has been approved in England, incorporated in a wider set of Industrial Strategy Zones, to promote regeneration and job creation; to act as national hubs for global trade and investment; and to create hotbeds for innovation. In December 2023, the then-Government published its Freeports Delivery Road Map. This reiterated the importance of offshore wind projects to Freeports and identified need to "develop a shared understanding of the barriers to offshore wind investment and identify potential solutions to overcome them". In June 2025, Freeports' position within Industrial Strategy Zones was announced. While much of the future investment in Freeport facilities will take place inland away from the harbours themselves that form part of most Freeports, where investment in port facilities is required, it is especially important that large weight be given to the national benefits that are expected, and to the need to facilitate wider Freeport development.

Coastal shipping

2.46 Ports can make a valuable contribution to decongestion and to the environment, as well as commercial gain, by facilitating coastal shipping as a substitute for inland freight transport (especially by road haulage) of various commodities. This can mean reduced emissions of pollutants per tonne-mile, with those emissions, and noise, at the same time having much less effect on people close to the transport arteries. Coastal shipping is expected to grow, and developers are expected to provide suitable facilities on a commercial basis, again subject to dealing appropriately with impacts.

Resilience

2.47 Spare capacity also helps to assure the resilience of national infrastructure. Experience during the Covid-19 pandemic, as well as preparations for leaving the European Union, brought this need into sharp relief, especially in the ro-ro sector.

2.48 Port capacity is needed at various locations and covering a range of cargo and handling facilities, to enable the sector to meet short-term peaks in demand, the impact of adverse weather conditions, accidents, deliberate disruptive acts and other operational difficulties, without causing economic disruption through impediments to the flow of imports and exports.

2.49 Specifically, capacity needs encompass HGV parking and associated facilities, both on and off port estates, which in turn can contribute to resilience of the supply chain more generally and the ability to adapt to global events. Strengthened port rail connectivity can also improve resilience in relevant supply-chains.

2.50 In unit-load traffic, container terminal capacity can offer resilience to disruption of ro-ro services, and vice versa, provided that cargo-owners and shippers develop their own ability to switch modes-of-appearance flexibly. The development of new facilities of both types can act as a catalyst in this regard, demonstrating to shippers that it is worthwhile to plan flexibly for contingencies.

2.51 It is noted here that the Channel Tunnel Shuttle also provides essential capacity for ro-ro-equivalent traffic, and conversely port capacity should continue to provide contingency for disruption to Tunnel services.

2.52 Given the large number of factors involved, the Government believes that resilience is provided most effectively as a by-product of a competitive ports sector, and underlines the requirement for applicants' commercial judgement, when proposing capacity that will provide contingency as well as its business-as-usual purposes, to be accepted.

Interface with other National Policy Statements

2.53 The nature of ports, as nodes in international and domestic logistics networks, means that their development links closely with other types of major development covered by National Policy Statements, notably including those for Energy and for National Networks.

2.54 In the context of renewable energy, attention is particularly drawn both to the role that ports will play in servicing the construction, operation and maintenance of offshore facilities, and to the need for cable connections to avoid compromising navigation, including ports themselves, anchorages, and pilot stations.

2.55 Attention is especially drawn to guidance on navigation in the NPS for Renewable Energy Infrastructure (EN-3), for example at paras 2.8.178ff. this states that "offshore development should be planned from the earliest stages to recognize the vital importance of shipping to the economy, trade and growth, and allow offshore wind farms, offshore transmission, and navigation to co-exist successfully, fully respecting rights of innocent passage under international conventions".

Conclusion

2.56 Against this background, the Government believes that there is a compelling need for substantial additional port capacity over the next 30 years, to be met by a combination of development already consented and development for which applications have yet to be received.

2.57 To exclude the possibility of providing additional capacity for the movement of goods and commodities through new port development would be to accept avoidable limits on economic growth and on the price, choice and availability of goods imported into

the UK and available to consumers. It would also limit the local and regional economic benefits that new developments might bring and unnecessarily compromise our ability to strengthen national security and resilience. Such an outcome would be strongly against the public interest.

Policy on assessing the need for additional capacity

2.58 For the reasons set out above, when determining an application for an order granting development consent in relation to ports, the decision-maker should accept the compelling need for future capacity, including to:

- enable long-term forecast growth in volumes of imports and exports by sea for all commodity-types indicated by the demand forecast figures set out in the DfT demand forecasts, taking into account capacity already consented;
- support the development, operation, maintenance, and decommissioning of offshore sources of renewable energy including the Government's ambitious targets for increasing these by 2030 and beyond;
- offer a sufficiently wide range of facilities at a variety of locations to match existing and expected trade, ship call and inland distribution patterns, including by rail where network capacity is available, and to facilitate and encourage coastal shipping;
- respond to the wider needs of the freight and logistics sector including providing (whether on- or off-port, possibly as associated development) adequate facilities for HGV parking, facilitating modal shares that take account of externalities, and support fleet modernisation;
- ensure effective competition among ports and, through that competition, provide substantial resilience in the national infrastructure; and
- take full account of the contribution port developments might make to regional and local economies, including agglomeration benefits.

2.59 There is a presumption in favour of granting development consent for port-development Nationally Significant Infrastructure Projects (NSIPs) that fall within the need for infrastructure established in this National Policy Statement (NPS) and which comply with the policies in this NPS.

2.60 Advice on how to assess the impacts of developments that might meet these planning policies is provided through the guidance on assessment of the impacts of proposed development in section 4 of this NPS.

3. Assessment principles

Key considerations

3.1 This section outlines the key principles to which all applicants and decision makers and applicants need to give consideration. These are to be considered in addition to the impact-specific policies provided in section 4.

3.2 If a masterplan exists then applications should be assessed, by the decision maker, within the context of a masterplan for the port area or development where available. Masterplans should outline the long-term development objectives, integration with wider transport and energy networks, and alignment with national infrastructure priorities. Where no formal masterplan exists, applicants should demonstrate how their proposal contributes to coherent and sustainable port growth.

3.3 In making decisions on proposals for individual port developments, the planning decision-maker should take account of the following key considerations:

- the applicant's assessment should be conducted in a manner that is consistent with statutory requirements under UK legislation;
- the applicant's assessment should be conducted in a way that takes into account all of the Government’s broad objectives for transport, including the need:
- to promote economic growth through improving networks and links for passengers and freight, as well as ensuring an efficient and competitive transport sector both nationally and internationally;
- to improve the environmental performance of ports and associated developments, including transport, as well as to help the transition to support infrastructure needed for green technologies and alternative fuel use; and
- to strengthen the safety and security of transport;
- to strengthen the resilience of freight transport, recognizing also the contribution that passenger traffic can make to the commercial robustness of ro-ro services;

- to contribute to cohesion of and benefit local communities in port hinterlands.

- the applicant's assessment should take account of other relevant UK policies and plans, including the Marine Policy Statement (MPS) and marine plans provided for by the Marine and Coastal Access Act 2009. The decision-maker must have regard to these in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area;

- the applicant's assessment should draw on relevant guidance and robust available evidence;

- the assessment should also be informed, as to the material points for consideration, by points raised during early engagement with statutory environment bodies; information sought from applicants should be proportionate to the scale of proposed development and associated impacts, including its likely impact on and vulnerability to climate change, as well as all other aspects of conformity with this NPS, but at the same time should not be unduly burdensome; and

- for applications relating to reserved trust ports in Wales, the decision-maker should take account of the Welsh Government's policies and plans, particularly in respect of transport and planning.

3.4 Most of the guidance below will apply to the examining authority and to the Secretary of State as decision-maker. Where intended to apply specifically to the Secretary of State, this is specifically mentioned.

Consideration of benefits and impacts

3.5 In this NPS, the terms 'effects', 'impacts' or 'benefits' should be understood to mean likely significant effects, impacts or benefits.

3.6 Where the decision-maker reaches the view that a proposal for port infrastructure is a NSIP, it will then have to weigh the suggested benefits, including the contribution that the scheme would make to the national, regional or more local need for the infrastructure, against anticipated adverse impacts, including cumulative impacts. Early examination of alternative designs and solutions will be particularly important where there are likely significant impacts on protected sites.

3.7 Where relevant, the applicant should set out clearly where the mitigation hierarchy has been applied for each relevant impact, including biodiversity, landscape, heritage, air quality, noise and water resource impacts. Here the applicant should provide evidence of options considered to avoid harm, measures proposed to minimise and mitigate impacts and justification for any residual impacts and proposed compensation measures. The assessment should include a comparison of alternatives and demonstrate that the chosen approach represents the least environmentally damaging option reasonably available. In this hierarchy priority should be given to measures that avoid harm, with compensation being the last option in the hierarchy.

Benefits

3.8 Economic, social and environmental benefits could include those identified in this NPS at a national level, as well as local benefits identified at the project-specific level. The decision-maker should take account of any longer-term benefits that have been identified (such as job creation), or any wider benefits to national, regional or local economies, environment or society.

3.9 Ports enable international trade, including essential imports, and so contribute to enhancing gross national product and security. They provide opportunities for foreign direct investment. They generate tax revenues for the Exchequer and for local government. Being distributed widely across England and Wales (and the wider UK), they can play a role in promoting growth across regions. Their development contributes to resilience of the national economy's trade, including in critical goods.

3.10 At regional and local level, economic benefits from port developments include regeneration and employment opportunities. As commercial developments, ports can also generate agglomeration effects by bringing together businesses, with varying degrees of mutual interaction, and producing economic benefits over and above those reflected in the value of transactions among those businesses.

3.11 Ports can provide highly skilled jobs with the greater adoption of technology, with wider longer-term benefits to the economy.

Adverse impacts

3.12 Adverse impacts may be identified in a number of ways: in the local impact report which relevant local authorities are invited to submit following the acceptance of an application; by statutory consultees; in any Environmental Statement which accompanies an application; or in written or oral representations made. The NPS in broad terms ascribes weight to be applied to benefits or impacts, including multiple and cumulative impacts of projects, and the decision-maker must take these into account in reaching the decision. The precise nature of the impact will, however, vary depending on several factors, including matters such as, for example, the type of infrastructure, the specific location of the proposed project, heritage assets and the local geology or biodiversity.

Guidance for the decision-maker

3.13 The decision-maker should give substantial weight to the positive impacts associated with economic development, in line with the policy set out in this NPS. The decision-maker should weigh residual adverse effects against the benefits of the proposed development.

3.14 The AoS accompanying this NPS assesses the broad nature and scale of economic impacts in relation to port development generally. The decision-maker may need also to quantify the benefits of an individual application.

3.15 Expansion of the ports sector through market-oriented investment may stimulate extra employment and training benefits which, as noted above, may be considered where relevant in accordance with TAG TPM or WelTAG where applicable.

Socio-economic impacts

3.16 The construction, operation and decommissioning of port infrastructure is likely to have socio-economic impacts at local and regional levels.

Applicant's assessment

3.17 Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in its application an assessment of these impacts (see paras 3.29ff).

3.18 This assessment should consider all relevant socio-economic impacts, which may include:

- the creation of jobs and training opportunities;
- the provision of additional local services and improvements to local infrastructure, including the provision of transport, educational and visitor facilities, green infrastructure (including blue space) and improved connectivity, and contribution of ports, including small leisure ports, to local economies and social cohesion;
- effects on tourism: where increased tourism is likely to significantly affect demand for local services, this impact should be assessed. Additional benefit should also be identified through promoting the historical legacy of working ports; this is important in terms of the changing economic life of ports and how such change is compatible with conserving heritage assets. Port development may have an adverse impact on tourism, for example if it severs or diverts footpaths or bridleways, has a detrimental impact on the surrounding landscape or seascape, or affects the space available for local leisure activities. (See paras 4.282ff on open space.)
- the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the port and/or other infrastructure. This could, at the margin, change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion, depending on how populations and service provision change because of the development. However, in the great majority of cases experience and the nature of port developments suggest that these considerations are unlikely to be very significant; and
- cumulative effects – if development consent were to be granted to for several projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region.

3.19 Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.

3.20 Socio-economic impacts may be linked to other impacts – for example, the visual impact of a development is considered at paras 4.242ff but may also have an impact on tourism and local businesses. How the environmental impacts of the proposed development affect different social groups and communities should be assessed, reflecting that certain groups can be more vulnerable and/or disproportionately exposed to environmental harm.

Guidance for the decision-maker

3.21 The decision-maker should have regard to the potential socio-economic impacts of new port infrastructure identified by the applicant and from any other sources that the decision-maker considers to be both relevant and important to its decision, including impacts associated with socio-economic disadvantage.

3.22 It is reasonable for the decision-maker to conclude that little or no weight is to be given to assertions of socio-economic impacts that are not supported by evidence.

3.23 The decision-maker should consider any positive provisions the developer has made through developer contributions and infrastructure delivery, and any legacy benefits that may arise, as well as considering any options for phasing development in relation to the socio-economic impacts.

3.24 The decision-maker should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high-quality design can improve the visual and environmental experience for visitors and the local community alike.

Commercial and Competition impacts

3.25 Ports in England and Wales operate on commercial lines, very largely without public subsidy and with investment from their own operating profits or from private sector equity and borrowing. Port developers must therefore plan to make a commercial return from the investment being made. The decision-maker may need to make judgements as to whether possible adverse impacts would arise from the impact of the development on other commercial operators, especially where such impacts are identified in environmental assessments, but in so far as such impacts are largely commercial and only the result of fair competition, they are unlikely to be material.

Guidance for the decision-maker

3.26 In cases where the adverse impacts would only arise in the event of the success of the project (e.g. through the increased traffic generated by a thriving development), the decision-maker should consider the adequacy of the mitigation proposed in such an event, without reference to the likelihood of the impact arising.

3.27 Objections from port users adversely affected by the development should be considered in the light of the proposal from the applicant to mitigate those impacts, taking into account any benefits the decision-maker believes, on the evidence presented, will accrue to those users from the development.

3.28 In some cases, particularly if port developments are occurring in parallel, it may be necessary to make some assessment of the effects of competition in assessing the demand on inland access links and on the phasing of road, rail and other infrastructure demands. This is discussed further in paras 4.119ff on transport.

General approach to environmental impacts and Environmental Impact Assessment

3.29 The Government's planning guidance is likely to be a useful source of guidance on impacts not otherwise discussed in this NPS[13].

3.30 Under the Environment Act 2021, Ministers of the Crown must also have due regard to the Environmental Principles Policy Statement when making policy, and this duty therefore applies to this NPS. The duty does not apply where Ministers are making individual decisions in accordance with a NPS or deciding on individual planning applications.

3.31 Sufficient relevant information, underpinned by robust evidence, data and modelling, is crucial to good decision-taking, particularly where formal assessments are required (such as Environmental Impact Assessment, Environmental Outcomes Reports (see paragraph 3.38), Habitats Regulations Assessment and Flood Risk Assessment). To avoid delay, applicants should discuss and review what information and evidence is needed with statutory environmental bodies as early as possible at the pre-application stage. For NSIPs, the Planning Inspectorate (on behalf of the Secretary of State) can give a scoping opinion. This should enable those bodies to communicate with applicants in a timely manner throughout the process, and provide proportionate and realistic expectations of what information is required, and over what time-frames.

3.32 The Government has set legally binding long-term targets for England under the Environment Act 2021, covering the areas of: air quality, water, biodiversity, resource efficiency and waste reduction, tree and woodland cover, and Marine Protected Areas. Meeting the legally binding targets will be a shared endeavour that will require a whole-of-government approach to delivery. The delivery of these long-term targets is supported by stretching interim targets. The Secretary of State must consider duties under the Environment Act 2021 in relation to environmental targets and the framework for delivering those targets set out in the Government's Environmental Improvement Plan for improving the natural environment.

3.33 The Secretary of State must consider the statutory Marine Protected Area (MPA) target (Environmental targets (Marine Protected Areas) Regulations 2023). The MPA target requires that at least 70% of MPA features be in favourable condition by 2042 with the remainder in recovering condition. Recovering condition is defined as 'the

[13] See in particular the *National Infrastructure Planning Guidance* portal.

measures necessary to remove or manage all relevant impacts on that feature have been implemented'.

3.34 Applicants should look for opportunities to take a holistic approach to avoiding, mitigating or compensating multiple impacts on, and delivering improvements for, the natural or built environment, on landscapes, seascapes and on people by using nature-based solutions. Nature-based solutions can deliver multiple benefits for climate, biodiversity, and people, and can therefore play a critical role in tackling these interrelated impacts in an integrated way. Carefully designed and implemented nature-based solutions are beneficial because they may be able to deliver a range of benefits to society beyond their primary purpose. For example, trees planted to sequester carbon could offer benefits for flood management, soil stability, biodiversity and recreation. The relevant local nature recovery strategy will be a useful source of information for nature-based solutions, including 'green infrastructure'. A Green Infrastructure approach[14] can be used to plan multifunctional networks of natural features to integrate the various benefits and solutions. Well-designed nature-based solutions could also contribute to achieving Biodiversity Net Gain requirements.

3.35 All proposals for projects that are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the "EIA Regulations)[15] and the Marine Works (EIA) Regulations as assimilated law must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project.

3.36 The Regulations, in accordance with the Espoo Convention[16] and its ratified Protocols, specifically cover 'trading ports…which can take vessels over 1,350 tonnes' within Schedule 1 para. 8(2) and 'construction of…harbours and port installations, including fishing harbours (unless included in Schedule 1)' within Schedule 2.

3.37 Where an application is made for a harbour revision or empowerment order, procedural requirements are set out in Schedule 3 to the Harbours Act 1964 as amended.

3.38 The Levelling-Up and Regeneration Act provides for replacement of EIA and SEA with a system of Environmental Outcomes Reports (EOR). When implemented, the EOR system will maintain consistency with international obligations and will contribute to maintaining levels of environmental reporting and protection, while reducing burdens on applicants and other parties in the Planning system. Until a new system is implemented, current legal requirements on environmental assessment continue to apply and references to assessments can be set out in an Environmental Statement.

Applicant's assessment

3.39 The EIA Regulations require a description of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect,

[14] Natural England unveils new Green Infrastructure Framework - GOV.UK (www.gov.uk)
[15] www.gov.uk/guidance/environmental-impact-assessment
[16] unece.org/environment-policy/environmental-assessment

secondary, cumulative, short-, medium- and long-term, permanent and temporary, positive and negative effects of the project, and also of the measures envisaged for avoiding or mitigating significant adverse effects. The Regulations also specifically refer to effects on human beings, fauna and flora, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them. The EIA Regulations, where applicable, require at least:

- (i) a description of the project and the regulated activity, comprising information on the site, design, size and other relevant features of the project and the regulated activity;
- (ii) a description of the likely significant effects of the project and the regulated activity on the environment;
- (iii) a description of the features of the project and the regulated activity or the measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
- (iv) a description of the reasonable alternatives studied by the applicant which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;
- (v) a non-technical summary of the information referred to in paragraphs (i) to (iv); and
- (vi) any additional information specified in Schedule 4 to the EIA Regulations relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.

3.40 To consider the potential effect, including benefits of a proposal for a project, the decision-maker will find it helpful if the applicant also sets out information on the likely significant social and economic effects of the development and shows how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being. MMO will also require applicants to undertake an assessment of the relevant marine plans in the area.

3.41 When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including existing and/or approved projects).[17]

3.42 To help the decision-maker consider thoroughly the potential effects of a proposed project in cases where the EIA (or EOR) Regulations do not apply to a project, and an ES is not therefore required, the applicant should instead provide information proportionate to the project on the likely significant environmental, social and

[17] For guidance on the assessment of cumulative effects, see, for example, PINS Advice Note 17 as well as *Impact Interactions* (http://ec.europa.eu/environment/eia/eia-studies-and-reports/guidel.pdf).

economic effects. References to an ES in this NPS should be taken as including a statement which provides this information, even if the EIA Regulations do not apply.

Guidance for the decision maker

3.43 The decision-maker may also have other evidence before it, for example from appraisals of sustainability of relevant NPSs or development plans, on such effects and potential interactions. Any such information may assist the decision-maker in reaching decisions on proposals and on mitigation measures that may be required.

3.44 When considering a proposal, the decision-maker should ensure that likely significant effects at all stages of the project have been adequately assessed and should request further information where necessary. The requirements on the decision maker set out in Part 3 of the Marine Works (EIA) Regulations 2007 (as amended) will also apply to relevant regulated activities.

3.45 The Secretary of State should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place.

Alternatives

3.46 In any planning case, the relevance or otherwise to the decision-making process of the existence (or alleged existence) of alternatives to the proposed development is in the first instance a matter of law, detailed guidance on which falls outside the scope of this NPS.

3.47 This guidance[18] is applicable to assessing alternatives for NSIPs, as well as being a relevant consideration for alternatives across all consenting routes, including TCPA and Harbour Orders.

Applicant's assessment

3.48 Applicants should comply with all legal requirements, and any policy requirements set out in this NPS, on the assessment of alternatives. For example, current requirements include:

- where applicable, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require projects with significant environmental effects to include a description of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects;

[18] http://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

- there may also be other specific legal requirements for the consideration of alternatives, for example, under the Habitats Regulations and Water Environment (Water Framework Directive) (England and Wales) Regulations 2017;

- there may also be policy requirements in this NPS, for example the flood risk sequential test and the assessment of alternatives for developments in National Parks, the Broads and National Landscapes - where there is a policy or legal requirement to consider alternatives, the applicant should describe the alternatives considered in compliance with these requirements and in a proportionate manner.

3.49 Applicants are obliged to include in their ES factual information about the main alternatives they have studied. The application as a whole should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility.

3.50 In considering alternatives, the applicant should include alternative locations within its control as well as alternative layouts and designs on the proposed site. They should make clear whether alternative locations and designs pose a lower risk to and from the environment, and whether they can positively contribute to environmental outcomes onsite or elsewhere.

Guidance for the decision maker:

3.51 Given the public interest in provision of new port infrastructure, the decision-maker should, subject to any relevant legal requirements (*e.g.* under the Habitats Regulations) which may indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives:

- whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development;

- the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;

- alternatives not among the main alternatives initially studied by the applicant (as reflected in the ES) should only be sought from the applicant to the extent that the examining authority thinks they are both important and relevant to its advice;

- alternative proposals, suggested by an objector, which mean the primary objectives of the application could not be achieved, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the decision.

3.52 Potential port schemes for consideration as alternatives could be informed by options appraisals carried out to support investment decisions in port infrastructure, *e.g.* identified in port masterplans. Where relied upon to set out alternatives these should be provided or referenced with the application alongside other supporting information

3.53 It is intended that potential alternatives to a proposed development should, wherever possible, be identified before an application is made in respect of it (so as to allow appropriate consultation and the development of a suitable evidence base in relation to any alternatives which are particularly relevant). Where, therefore, an alternative is first put forward by a third party after an application has been made, the person considering that application may place the onus on the person proposing the alternative to provide the er evidence for its suitability as such, and the applicant should not necessarily be expected to have assessed it.

3.54 In determining appropriate alternatives, a project proposed by a competing port will not normally be appropriate as an alternative for the project under application. This is because it is outside the control of the applicant. It is also in the national interest that some surplus physical capacity should be available at national level to help with trade resilience.

Biodiversity Net Gain

3.55 Biodiversity net gain (BNG) aims to deliver measurable improvements for biodiversity by creating, enhancing, maintaining and monitoring habitats in association with developments and is one of the mechanisms used to delivery biodiversity benefits. BNG will be applicable to onshore and intertidal components of projects. Applicants should accordingly deliver net gains for biodiversity in respect of any onshore and intertidal components of projects in England.

3.56 BNG should be applied in conjunction with the mitigation hierarchy and does not change or replace other applicable environmental obligations such as under Habitats Regulations. In addition to providing net gains for biodiversity, applicants should also identify and deliver appropriate opportunities for nature recovery and wider environmental enhancements. The Environmental Benefits from Nature Tool is an additional voluntary tool to enable wider benefits for people and nature from biodiversity net gain.

3.57 Applicants should use the latest applicable version of the biodiversity metric to calculate their biodiversity baseline and inform their BNG outcomes.

3.58 In line with national guidance, BNG can be delivered on-site or wholly or partially off-site. Applicants should set out details of any proposed on-site or off-site biodiversity gains within the application for development consent. When delivering BNG off-site, developments should do this in a manner that best contributes to the achievement of relevant wider strategic outcomes, for example by increasing habitat connectivity or enhancing other ecosystem service outcomes. Reference should be made to any local nature recovery strategies (which should be the primary reference point for those delivering BNG off-site) and other relevant national or local plans and strategies, such as green infrastructure strategies, used to inform BNG delivery.

3.59 The Environment Act 2021 contains provisions for a mandatory BNG requirement for NSIPs. A government Biodiversity Gain Statement will set out the concept and policy requirements for BNG for NSIPs. When these provisions are commenced, the Secretary of State will need to be satisfied that the biodiversity gain objective in any relevant Biodiversity Gain Statement has been met. These BNG provisions relate to

the onshore components of NSIP applications in England as far as the mean low-water mark.

3.60 There are provisions in the Environment Act 2021 to allow Marine Net Gain to be made mandatory for NSIPs in the future. Marine Net Gain, intended for all in-scope new developments, is currently being developed by Government, which will provide guidance in due course.

Criteria for good design for port infrastructure

3.61 Good design should be embedded throughout the project. High quality and inclusive design goes far beyond aesthetic considerations. Engineering, safety, operational and wider environmental considerations should take precedence but good aesthetics (though secondary in weighting) may be compatible with the primary design objectives. The functionality of an object – be it a building or other type of infrastructure – including fitness for purpose and sustainability, is equally important. Applying good design should produce sustainable infrastructure sensitive to place, efficient in the use of land and natural resources and energy used in their construction and operation, matched by a layout that mitigates the visual impact of development and facilitates efficient and effective operation underpinned by an appearance, landscape and setting and demonstrates good aesthetic as far as possible. Appropriate conservation of heritage assets would factor in well-considered design. While it is acknowledged, that the nature of much port infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area, effort should be made to embed the principles of good design in the development of port schemes (and may be of particular importance to ports with a passenger offer). For projects covered by this NPS, safety considerations are essential to good design.

3.62 A port, if it wishes to do so (this is not a statutory requirement), may benefit from the use of a masterplan to ensure coherent, adaptable, and future-proof-design which integrates land use, transport and environmental considerations. The National Infrastructure and Service Transformation Authority (NISTA) advocates the following design principles which should be established from the outset of the project and considered throughout:

3.63 Climate – mitigate carbon emissions and adapt to climate change. It includes opportunities to enable decarbonisation, incorporates flexibility, and builds resilience against climate change. The functionality of projects, including fitness for purpose, resilience and sustainability, is equally important.

3.64 People – helping to improve the quality of life for local communities. It promotes inclusion, cohesion and increases accessibility. It creates safe internal environments with clean air that improve health and wellbeing.

3.65 Places – well-designed infrastructure gives places a strong sense of identity, and through that forms part of our national cultural heritage. Creating a sense of place, connecting communities, addressing community severance and integrating into its surroundings. It makes a positive contribution to local landscapes within and beyond the project boundary. Good design enhances local culture and character and

supports local ecology, delivering net biodiversity gain, while protecting wildlife corridors and irreplaceable natural assets and habitats.

3.66 Value - adding value by defining issues clearly from the outset. Good design also finds opportunities to add value beyond the main purpose of the infrastructure to consider the wider benefits savings on cost, the environment, materials and space. It is efficient in the use of natural resources, sustainable materials and energy used in construction.

Applicant's assessment

3.67 Applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved, taking account of views expressed by relevant stakeholders and communities through pre-application. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected.

3.68 At an early stage the applicant should consider seeking professional and independent advice on what constitutes good design of a proposal, having regard to relevant design guidance and design codes.

3.69 Good design is also a means by which many policy objectives in this NPS can be met, for example the impact sections show how good design and use of appropriate technologies can help avoid and mitigate adverse impacts such as noise and vibration.

Guidance for the decision-maker

3.70 In the light of the above, and given the importance which PA08 places on good design and sustainability, the decision-maker needs to be satisfied that port infrastructure developments are appropriately designed and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be. In so doing, the decision-maker should satisfy itself that the applicant has taken into account both functionality (including fitness for purpose, layout, location of uses, and operation) and aesthetics (including its contribution to the quality of the area) as far as possible. While the applicant may have no or very limited choice in the physical appearance of some port infrastructure, there may be opportunities for the applicant to demonstrate good design relative to existing landscape character, landform and vegetation.

3.71 In considering applications, the decision-maker should consider the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.

3.72 At an early stage the decision-maker should consider seeking professional and independent advice on what constitutes good design of a proposal.

Climate change mitigation

3.73 Port developments may have an effect on greenhouse gases (GHG) from construction or operation phases of port development, particularly through their impact on sea and road transport. This impact may be beneficial, if the development results in modal shifts from road to shipping (including coastal shipping) or to rail transport, and the benefits from these shifts are greater than any additional emissions that may be associated with the proposed development. The impacts of these GHG emissions need to be understood and factored into the decision making process. At the same time, there needs to be a focus on proportionate assessment so as not place an undue burden on the applicant and decision maker. Therefore, in regard to the GHG emissions of a project, the EIA should focus on a project's significant impacts and the assessments should be proportionate to the evidence available.

3.74 GHG emissions are commonly classified under the GHG Protocol (2001) as Scope 1, Scope 2, and Scope 3. Scope 1 refers to direct emissions from sources owned or controlled by the reporting company, while Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating, or cooling consumed by the company. Scope 3 includes all other indirect emissions across the value chain, excluding Scope 2, and is further divided into upstream emissions — such as those from construction materials, logistics, and supply chain activities — and downstream emissions, which arise from factors like vehicle use, modal shift, induced demand, and lifecycle emissions of infrastructure-enabled activities

3.75 The EIA Regulations do not adopt this scope-based framework; rather, they require the assessment of a project's likely significant direct and indirect effects on the environment. In accordance with paragraph 5(f) to Schedule 4 of the Infrastructure Planning (Environment Impact Assessment) Regulations 2017, this includes information on the impacts of the project on climate, such as the nature and magnitude of a project's GHG emissions where they are likely to result in significant effects on climate. As part of EIA scoping and assessment, it is therefore necessary to consider whether direct or indirect GHG emissions as potential effects of the project on climate are likely to arise, *i.e*. quantifiable emissions with a causal relationship to the project. Where such emissions are identified they should be presented as part of the Environmental Statement, with appropriate measures taken to avoid double counting. While the effects of emissions will need to be considered on a case-by-case basis this could, for example, include emissions from construction activity, land or project use, which may as a matter of fact and legal requirement include those classified under the GHG Protocol (2001) as Scope 1, Scope 2 and/or Scope 3 GHG emissions.

Applicant's assessment

3.76 All port developments have the potential to lead to significant environmental effects resulting from GHG emissions. Where a project has direct or indirect likely significant effects, these should be considered over the lifetime of a project, and reported as part of meeting requirements under the EIA Regs. This could include, for example, emissions from:

- the movement of ships to and from the port and the fuel used;
- the convergence of multiple high-emitting sources such as HGV traffic especially under congested or stop-start driving conditions;
- port operations including use of non-road mobile machinery and diesel powered equipment;
- handling and storage of certain cargoes, including fossil fuels and bulk materials
- adoption of alternative fuels such as ammonia or hydrogen.

3.77 In the Institute of Environmental Management & Assessment (IEMA, now The Institute of Sustainability & Environmental Professionals, ISEP) Guidance on Assessment of Greenhouse Gas Emissions and Evaluating their significance and DESNZ Supplementary Guidance on Assessing the Effects of Downstream Scope 3 emissions, there is a six step assessment that applicants may wish to follow when assessing the GHG emissions associated with their project:

- the applicant should define the scope and goal of the assessment;
- the applicant should set clear boundaries;
- the applicant should establish the baseline for the port, terminal or other development and the global baseline;
- the applicant should select an appropriate methodology for calculating emissions;
- the applicant should then gather all necessary data for the calculations; and
- the applicant should calculate the GHG emission inventory.

3.78 This should be done at the scoping stage of the EIA and should be set out in the Environmental Statement. The Environmental Statement should set out as far as possible, identify and assess the impact of the port developments emissions in a clear and transparent way.

Mitigation

3.79 When a project is likely to result in significant GHG emissions, applicants should, as early as possible, work collaboratively with relevant authorities to identify and implement mitigation measures through design. Good design can minimise emissions, and new developments should be designed with a view to fuel efficiency in the operation of buildings and of outdoor plant and machinery, as well as with the maximum use of renewable energy sources, including for shoreside power to vessels. These should be considered across all phases of the development. The interaction between the design process and EIA process is underpinned by four key principles: (1) early, effective and ongoing interaction; (2) appropriate stakeholder engagement; (3) managing consenting risk; and (4) clear narrative. This makes sure that GHG mitigation measures are built in rather than bolted on at a later stage. This

good design should consider emissions both within and beyond the immediate vicinity of the port, given the global nature of climate impacts.

3.80 These mitigations should follow the mitigation hierarchy – avoid, reduce, mitigate, compensate. Offsetting for scope 1 and 2 emissions should be only considered if measures to avoid, prevent or reduce likely significant adverse impacts are not suitable. Within this mitigation hierarchy, suitable mitigation measures available to a developer to avoid, prevent, or reduce any likely significant effects on the environment from scope 3,unlike scope 1 or 2, emissions may be limited as the developer may not have direct control over these meaning that offsetting may be the best way to approach these emissions. Applicants should look for opportunities within the design of the proposed development to embed nature-based or technological solutions to mitigate, capture or offset greenhouse gas emissions. Port developers should be prepared to justify the adequacy of proposed mitigation or offsetting in the context of national climate objectives.

3.81 Sustainable approaches to using and re-using materials in port construction are also an opportunity for supporting the transition to a Circular Economy. Applicant should demonstrate how they have considered the:

- use of new building materials that can easily be reused;
- use of sustainable building materials (*e.g.* timber or recycled materials);
- re-use of building materials from demolished buildings; and
- re-use of minerals.

3.82 It is important to note that for some scope 3 downstream emissions such as those arising from shipping, it may be difficult or impossible for a port by itself to mitigate. A more international approach, such as through the IMO and emissions trading schemes, may be more suitable.

3.83 Decision makers should assess whether mitigations are sufficient. Notably, the decision-maker should consider the extent to which the applicant has considered the use of renewable energy on the port estate. Where renewable energy is not planned to be used for a major port development, the reasons should be scrutinised.

3.84 If a port development is located in an area with an existing climate action plan or local net zero target, applicants should engage with local authorities to optimise co-benefits.

3.85 The provision of shore-side fixed electrical power to replace the use of ships' generators in port ('cold ironing') can reduce local pollution and may also reduce carbon emissions depending on generation sources, although the effects will be small relative to global emissions. Paragraph 4.201 offers more detail on cold ironing.

Guidance for the decision-maker

3.86 The decision-maker should consider the quantifiable impact of a new port development on national and global greenhouse gas emissions from ships transiting to and from the port. In the unlikely event that an Environmental Statement identifies such an impact as is found to be potentially significant, the weight given to any such in-scope scope 3 emissions should be proportional to the port development's specific impacts on these relevant emissions.

3.87 Emissions from ships in ports in England and Wales are unlikely to be significant contributors to climate change in a global context but the Government is strongly committed to reducing emissions from ships at berth, including for local environmental benefit. Where an Environmental Statement is required, it should set out any measures taken to minimise the local effect of emissions and also how these are likely to affect greenhouse gases.

3.88 Inland transport. Where a development will lead to significant increases in inland transport needs, the estimated impact on CO_2, and other greenhouse gases if significant, which may include Scope 3 again if significant, will need to be covered in the Environmental Statement. A transport assessment will also normally be required. See paras 4.119ff and TAG (and, in Wales, WelTAG) guidance.

3.89 The decision-maker should attach limited weight to the estimated likely net carbon emissions performance of port developments, as distinct from local pollution impacts, in view of the limited contribution likely to be possible in the context of global efforts. However, it may be appropriate to agree requirements or obligations that will cement cost-effective ways to minimise greenhouse gas emissions in operation. Consent might be withheld if the applicant refused to accept reasonable and affordable requirements or obligations related to design or operations, or arising from the transport assessment (again see paras 4.119ff on transport).

Climate change adaptation

3.90 Section 10(3)(a) PA08 requires the Secretary of State to have regard to the desirability of mitigating, and adapting to, climate change in designating an NPS.

3.91 The preceding section of this NPS covers climate change mitigation. While climate change mitigation is essential to minimise the most dangerous impacts of climate change, previous global greenhouse gas emissions have already committed us to some degrees of continued climate change for at least the next 30 years.

3.92 The impacts of climate change will lead to the UK experiencing hotter, drier summers and warmer, wetter winters. There is a likelihood of increased flooding, drought, heatwaves, intense rainfall events and other extreme events such as storms, as well as rising sea levels.[19] Coastal and marine areas are among the most vulnerable to climate impacts. Adaptation is therefore necessary to deal with the potential impacts of these changes that are already happening.

19 www.metoffice.gov.uk/weather/climate-change/effects-of-climate-change

3.93 The Climate Change Act 2008 requires the Government to complete a Climate Change Risk Assessment (the CCRA) every 5 years, followed by a National Adaptation Programme setting out how the government will address the risks identified in the CCRA.

3.94 The third Climate Change Risk Assessment identified several risks relevant to the ports sector including: Risks to infrastructure services from coastal flooding and erosion and risks to transport from high and low temperatures, high winds, lightning.[20]

3.95 The third National Adaptation Programme was published in 2023[21] and actions for the ports sector are included in the transport section.

3.96 To support planning decisions, the Meteorological Office has produced a set of UK Climate Projections. In addition, the Government's Adaptation Reporting Power, under the Climate Change Act, invites authorities (a defined list of public bodies and statutory undertakers, including certain statutory harbour authorities[22]) to assess the risks presented by a changing climate, include policies and actions to address climate risk, and set out progress made.

3.97 In certain circumstances, measures implemented to ensure a port can adapt to climate change may give rise to additional impacts, *e.g.* because of protecting against flood risk there may be consequential impacts on coastal change.

3.98 In preparing measures to support climate change adaptation, applicants should take reasonable steps to maximise the use of nature-based solutions to provide the basis for such adaptation. In addition to avoiding further greenhouse gas emissions when compared with some more traditional adaptation approaches, nature-based solutions can also result in biodiversity benefits as well as increasing absorption of carbon dioxide from the atmosphere.

Applicant's assessment

3.99 New port infrastructure will typically be long-term investments which will need to remain in operation over many decades, in the face of a changing climate. Consequently, applicants must consider the impacts of climate change when planning the location, design, build and operation of new port infrastructure. Proposals that are subject to the Environmental Impact Assessment Regulations must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project. The ES should set out how the proposal will manage operational risks arising from the projected impacts of climate change over the lifetime of the port. This should include any significant direct impacts of climate change on the port (*e.g*. from rising sea levels) and any significant indirect impacts arising from operational dependencies on inshore and/or supporting infrastructure (*e.g*. transport networks, energy supplies). This will help

20 www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA3-Briefing-Transport.pdf
21 www.gov.uk/government/publications/third-national-adaptation-programme-nap3
22 List of organisations reporting under adaptation reporting power: third round - GOV.UK (www.gov.uk)

decision-makers and operators to understand if the proposed port is resilient to future climate risks.

3.100 Any adaptation measures should be informed by the latest set of UK Climate Projections, the Government's latest UK Climate Change Risk Assessment, when available[23] and in consultation with the Environment Agency's Climate Change Allowances for Flood Risk Assessments. Any adaptation measures must themselves also be assessed as part of any environmental assessment, which should set out how and where such measures are proposed to be secured. Applicants should demonstrate that proposals have a high level of climate resilience built-in from the outset and should also demonstrate how proposals can be adapted over their predicted lifetimes. These results should be considered alongside relevant research which is based on the climate change projections such as Environment Agency (EA) Flood Maps, national assessment of flood and coastal erosion risk, National Coastal Erosion Risk Mapping and Shoreline Management Plans.

3.101 In addition, where port infrastructure has safety-critical elements (*e.g.* storage of gas, petrochemicals) the applicant should apply a credible maximum climate change scenario. It is appropriate to take a risk-averse approach with elements of infrastructure which are critical to the safety of its operation.

Guidance for the decision-maker

3.102 The decision-maker should satisfy itself that applicants for new port infrastructure have taken into account the potential impacts of climate change using the latest UK Climate Projections available at the time the ES was prepared, the Government's latest Climate Change Risk Assessment, associated research and expert guidance (such as the EA's Climate Change Allowances for Flood Risk Assessments), and in consultation with the EA and other relevant bodies with expertise on climate risks, to ensure they have identified appropriate adaptation measures. This must cover the estimated lifetime of the new infrastructure. Should a new set of UK Climate Projections or associated research become available after the preparation of the ES, the decision-maker should consider whether it needs to request further information from the applicant.

3.103 If any adaptation measures give rise to consequential impacts, the decision-maker should consider the impact of those in relation to the application as a whole and the impacts guidance set out elsewhere in this NPS (*e.g*. on flood risk, water resources and coastal change).

3.104 The decision-maker should satisfy itself that there are not critical features of the design of new ports infrastructure which may be seriously affected by more radical changes to the climate beyond that projected in the latest set of UK Climate Projections, taking account of the latest credible scientific evidence on, for example, sea level rise (*e.g.* by referring to additional maximum credible scenarios from the Intergovernmental Panel on Climate Change or EA) and that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime.

[23] See for example https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2022

3.105 Any adaptation measures should be informed by the latest set of UK Climate Projections, the Government's latest national Climate Change Risk Assessment and in consultation with the EA.

3.106 Adaptation measures can be required to be implemented at the time of construction where necessary and appropriate to do so.

3.107 Where adaptation measures are necessary to deal with the impact of climate change and that measure would have an adverse effect on other aspects of the application and/or surrounding environment (*e.g*. coastal processes), the decision-maker may consider requiring the applicant to ensure that the adaptation measure could be implemented should the need arise, rather than at the outset of the development (*e.g*. increasing height of an existing, or requiring a new, sea wall).

Health and nuisances

3.108 Ports have the potential to affect the health, well-being and quality of life of the population, including the potential for statutory nuisances.

3.109 Port developments can have direct impacts on health, including increasing traffic, air pollution, dust, odour, polluting water, hazardous waste and pests.

3.110 New port developments may also affect the composition, size and proximity of the local population, and in doing so may have health impacts – for example if they affect access to key public services, transport or the use of open space for recreation and physical activity.

3.111 S.158 PA08 confers statutory authority for carrying out development for which consent is granted by an order granting development consent, or doing anything else authorised by, an order granting development consent. Such authority is conferred only for the purpose of providing a defence in civil or criminal proceedings for nuisance. This would include a defence in proceedings for nuisance under Part III of the Environmental Protection Act (EPA) 1990 (statutory nuisance). The defence does not extinguish the local authority's duties under Part III of the EPA 1990 to inspect its area and take reasonably practical steps to investigate complaints of statutory nuisance made to it by a person living within its area and to serve an abatement notice where satisfied of its existence, likely occurrence or recurrence. The defence is not intended to extend to proceedings where the matter is 'prejudicial to health' and not a nuisance.

Applicant's assessment

3.112 The applicant should identify any adverse health impacts, including potential for statutory nuisances and identify measures to avoid, reduce or compensate for these impacts as appropriate.

3.113 It is very important that, at the application stage of an NSIP, possible sources of nuisance under section 79(1) of the 1990 Act and how they may be mitigated or limited are considered by the applicant.

3.114 These impacts may affect people simultaneously, so the applicant should consider the cumulative impact on health, well-being and equity.

Guidance for the decision-maker

3.115 The decision-maker should consider the cumulative impact on health, well-being and equity.

3.116 With regards to statutory nuisance, the decision-maker can disapply the defence of statutory authority in whole or in part, in any particular case, but in doing so should have regard to whether any particular nuisance is an inevitable consequence of the development.

Security considerations

3.117 National security considerations apply across all national infrastructure sectors. The Department for Transport acts as the Sector Sponsor Department for the ports sector and in this capacity has lead responsibility for security matters in that sector and for directing the security approach to be taken. It works closely with government security services, including the National Protective Security Authority (NPSA) (formerly the Centre for the Protection of National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC), to provide advice to the most critical infrastructure assets on terrorism and other national security threats, as well as on risk mitigation.

3.118 Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development. Where applications for development consent for infrastructure covered by this NPS relate to potentially ‘critical’ infrastructure, there may be national security considerations.

Applicant’s assessment

3.119 DfT will be notified at pre-application stage about every likely future application for port NSIPs, so that any Defence and/or national security implications can be identified. Where Defence or national security implications have been identified, the applicant should consult with relevant security experts from CPNI and DfT, to ensure that physical, procedural and personnel security measures have been adequately considered in the design process and that adequate consideration has been given to the management of security risks.

3.120 The applicant should only include sufficient information in the application as is necessary to enable the Secretary of State to examine the development consent issues and make a properly informed decision on the application.

Guidance for the decision-maker

3.121 If NPSA and DfT, as appropriate, are satisfied that security issues have been adequately addressed in the project when the application is submitted to the

decision-maker, they will provide confirmation of this to the decision-maker, and the decision-maker should not need to give any further consideration to the details of the security measures in its examination.

3.122 Development proposed at ports should not prejudice the interests of national defence. In case of doubt, the Ministry of Defence should be consulted.

3.123 In exceptional cases, where examination of an application would involve public disclosure of information about defence or national security which would not be in the national interest, the Secretary of State can intervene and to have evidence considered in closed session.

4. Generic impacts

Biodiversity and geological conservation

4.1 This section gives guidance on generic impact types often relevant to ports applications and/or associated development. Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals, the genetic diversity they contain and the complex ecosystems of which they are a part. Geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance. The policy set out in the following sections recognises the need to protect and enhance biodiversity and geological conservation interests.

4.2 Government policy and priorities for the natural environment are set out in the Government's Environmental Improvement Plan[24]. The publication and regular updating of the Environmental Improvement Plan is required by the Environment Act 2021, alongside legally binding long-term environmental targets, an enhanced biodiversity duty for public authorities, biodiversity net gain and local nature recovery strategies. The Government is committed to developing an approach to marine net gain under the Environmental Improvement Plan.

4.3 The wide range of international and national legislative provisions affecting planning decisions on biodiversity and nature conservation issues is set out in the National Planning Policy Framework. The Natural Environment Planning Practice Guidance[25] document sets out good practice in England in relation to planning for biodiversity and geological conservation. Guidance for Wales is set out in Technical Advice Note 5,[26] Nature Conservation and Planning.

4.4 Sea ports are necessarily located on coasts and estuaries. These areas are often of fundamental importance to biodiversity, particularly to bird and fish life, acting as the prime nursery grounds for a range of commercial species and as critical migration pathways for other species.

4.5 Construction and operation of port infrastructure can have an adverse impact on biodiversity and/or geodiversity, including through:

[24] Department for Environment, Food and Rural Affairs. *Environmental Improvement Plan 2023.*
[25] https://www.gov.uk/guidance/natural-environment .
[26] Technical advice notes | GOV.WALES .

- dredging to maintain declared depths and to deepen waters to accommodate large ships. This can have implications for sediment transport, including smothering, which can in turn affect marine wildlife and can cause remobilisation of toxic substances and nutrients, increased suspended solids, reduced visibility and reduction in dissolved oxygen;

- cargo handling and storage, which may cause run-off, spills, or leakages to the marine environment, which could possibly include toxic or harmful material, including organic matter or oily compounds. Water pollution and bottom contamination resulting from these effluents may lead to deterioration of aquatic biota and fishery resources;

- discharge of ships' ballast water: risks include the possible introduction of non-native species;

- erosion of habitats resulting from vessel movements;

- noise, which can have impacts on fish and marine mammalian behaviour patterns;

- air pollution from ships and road transport serving the port;

- increase in marine litter; and

- light, which can alter or hinder the migration of fish through estuaries.

Applicant's assessment

4.6 The applicant should consider the full range of potential impacts on ecosystems (including habitats and protected species) and provide environmental information proportionate to the likely impacts of the infrastructure on biodiversity and nature.

4.7 The applicant should show how the project has followed the mitigation hierarchy and taken advantage of opportunities to conserve, restore and enhance biodiversity and geological conservation interests, as well as consider how its proposal will contribute to national and local environmental targets, including those in Local Nature Recovery Strategies, and deliver Biodiversity Net Gain in line with the policy set out in section 3. above and requirements in a relevant Biodiversity Gain Statement.

4.8 Applicants should collaborate with stakeholders involved with protecting and improving local ecosystems, such as coastal partnerships and statutory nature conservation bodies, to ensure their development proposals, including the mitigation and compensation measures, align with existing and emerging nature strategies and schemes.

International Sites

4.9 The most important sites for biodiversity in the UK are those identified and designated to meet the obligations of international biodiversity conventions, and which are afforded special protection by the Conservation of Habitats and Species

Regulations 2017 (as amended) and the Conservation of Offshore Marine Habitats and Species 2017 (as amended) known together as the Habitats Regulations. These sites are designated as Special Areas of Conservation and Special Protection Areas and are collectively known as Habitats Sites. The following should be given the same protection as sites legally protected by the Habitats Regulations: potential Special Protection Areas and candidate Special Areas of Conservation, listed or proposed Wetlands of International Importance (Ramsar sites); and sites identified, or required, as compensatory measures for adverse effects on habitats sites.

4.10 The Habitats Regulations set out a specific process (see paragraphs 4.38ff) to assess the likely implications for these sites from a proposed plan or project, either alone or in combination with other plans or projects. To maintain the overall coherence of the National Site Network, such plans or projects may only proceed if the applicant demonstrates satisfactorily that they will not adversely affect the integrity of the site or, in the case of a negative assessment, if there are no alternative solutions, and they must proceed for imperative reasons of overriding public interest with the necessary compensatory measures secured. It is important that the applicant should describe the alternatives considered to be compliant with these requirements and that this is done in a proportionate manner.

Sites of Special Scientific Interest (SSSIs)

4.11 Many Sites of Special Scientific Interest are also designated as sites of international importance and will be protected accordingly. Those that are not, or those features of Sites of Special Scientific Interest not covered by an international designation, are given a high degree of protection by the Wildlife and Countryside Act 1981. Most of the land that has been declared by Natural England as National Nature Reserves are also notified as Sites of Special Scientific Interest.

Marine Conservation Zones and Highly Protected Marine Areas

4.12 Marine Conservation Zones (MCZs), introduced under The Marine and Coastal Access Act (MCAA) 2009, are areas that have been designated for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitat or features of geological or geomorphological interest. The protected feature or features and the conservation objectives for the MCZ are stated in the designation order for the MCZ, which provides statutory protection for these areas. Measures to restrict damaging activities will be implemented by the MMO and other relevant organisations.

4.13 Under the MCAA s126, an MCZ assessment must be undertaken where an activity is capable of affecting (other than insignificantly) either (i) the protected features of an MCZ; or (ii) any ecological or geomorphological process on which the conservation of any protected feature of an MCZ is (wholly or in part) dependent. An applicant must satisfy the authority that either (i) there is no significant risk of the act hindering the achievement of the conservation objectives stated for the MCZ or (ii) that there is no other way of proceeding which creates a substantially lower risk, the public benefit outweighs the risk of environmental damage, and Measures of Equivalent Environmental Benefit (MEEB) to the damage which will or is likely to be caused to the MCZ will be undertaken.

4.14 Highly Protected Marine Areas (HPMAs) are areas of the sea that allow protection and full recovery of marine ecosystems. These sites protect all species, habitats and associated ecosystem processes within the site boundary. Management measures will be needed to further the conservation objective of HPMAs.

Regional and Local Sites

4.15 Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Sites, have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education.

Irreplaceable habitat including ancient woodland, ancient and veteran trees and trees and woodlands

4.16 Ancient woodland, ancient wood pastures and parkland, and ancient and veteran trees may sometimes be relevant to ports applications. Their long-standing presence, species and form serve as a rich cultural record of past management practices. Ancient and veteran trees are a valuable biodiversity resource for diversity of species and unique ecological conditions, once lost they cannot be recreated. Many ancient woodlands provide ecosystem services, for example, water and soil health, carbon storage, flood alleviation and pollution mitigation as well as providing public access, allowing people to make important contact with nature that helps to promote interest in the protection of these habitats, while delivering many health and wellbeing benefits. In such cases the ancient woodland inventory, ancient tree inventory and standing advice guidance may assist in determining any possible impact on such habitats[27].

4.17 Keepers of Time, published under the previous Government, sets out the Government's policy for ancient and native trees and woodlands in England, as well as sets out the commitment to maintain and enhance the existing area of ancient woodland, maintain and enhance the existing resource of known ancient and veteran trees, excluding natural losses from disease and death, and to increase the percentage of ancient woodland in active management.

4.18 Existing trees and woodlands should be retained as much as possible. The applicant should assess the impacts on, and loss of, all trees and woodlands within the project boundary and develop mitigation measures to fully minimise adverse impacts and any risk of net deforestation as a result of the scheme (Irreplaceable Habitats[28] require separate consideration). Mitigation may include the use of buffers to enhance resilience, improvements to connectivity, and improved woodland management. Where woodland loss is unavoidable, compensation schemes will be required, and the long-term management and maintenance of newly planted trees should be secured. Applicants should include measures to fully avoid, minimise, or mitigate the

[27] See MAGIC (defra.gov.uk) for the maps and https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions for guidance on impacts and mitigation.

[28] Irreplaceable habitats are habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity.

direct and indirect effects of development on all woodlands during the planning, construction and operational phase and opportunities for tree planting and woodland creation should be maximised.

4.19 Productive forests provide economic benefits to communities and ensure a supply of domestic timber resources. In addition, forests, trees and woodlands also provide wider ecosystem services. The Environmental Improvement Plan recognises the need to protect and increase tree canopy and woodland cover. Specific actions are set out in the England Trees Action Plan 2021 to 2024, including a commitment to ensure strong planning reforms will lead to more trees being planted and ensure strong protections for existing trees.

4.20 Applicants should include measures to mitigate fully the direct and indirect effects of development on ancient woodland, ancient and veteran trees or other irreplaceable habitats during both construction and operational phases. The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of any irreplaceable habitats, including ancient woodland, and ancient and veteran trees unless there are wholly exceptional reasons and a suitable compensation strategy exists.

4.21 Where possible, projects should include the reuse of materials and use of sustainable materials such as timber, or recycled materials.

Protection of species

4.22 Many individual wildlife species receive statutory protection under a range of legislative provisions.[29]

4.23 Some species and habitats have been identified as being of principal importance for the conservation of biodiversity in England and Wales[30] and thereby requiring conservation action. As a public authority, the Secretary of State is bound by the duty in s.40 Natural Environment and Rural Communities Act 2006 (as amended by s.102 Environment Act 2021) periodically to consider what action the authority can take, consistent with the exercise of its functions, to further the conservation and enhancement of biodiversity. In doing so the Secretary of State may consider the impact on species or habitats listed under s.41 of the 2006 Act. The Secretary of State should ensure that applicants have taken measures to ensure these species and habitats are protected from the adverse effects of development by using requirements imposed on the grant of development consent, planning obligations, or licence conditions. The Secretary of State should refuse consent where harm to the

[29] Certain plant and animal species, including all wild birds, are protected under the Wildlife and Countryside Act 1981. European plant and animal species are protected under the Conservation of Habitats and Species Regulations 2010. Some other animals are protected under their own legislation, for example Protection of Badgers Act 1992.

[30] For Wales. the list of habitats and species of principal importance is at www.biodiversitywales.org.uk/wales_biodiversity_partnership_documents-134.aspx . A joint GB Strategy on Invasive Non-Native Species was published in February 2023. Biodiversity indicators for the UK are regularly updated.

habitats or species and their habitats would result, unless the benefits of the development (including need) clearly outweigh that harm.

4.24 Applicants must identify, assess and manage potential impacts on migratory fish species and their habitats in line with the mitigation hierarchy. They should:

- undertake a robust assessment of the presence, population and movement patterns of migratory fish species potentially impacted by the development;
- avoid disruption to known or likely migratory routes (which can be from noise, dredging, discharges, abstractions or physical structures), taking a precautionary approach in the absence of sufficient or reliable data;
- account for cumulative impacts including the impacts of existing port infrastructure;
- include mitigation measures to manage any impacts that cannot be avoided, and if there are residual impacts as a last resort include a compensation package that delivers equivalent or better outcomes for the affected populations. These proposals should be agreed with the Environment Agency (and Natural England where appropriate) and may include mechanisms for long term monitoring and management;
- identify and maximise opportunities to deliver net improvements for migratory fish, such as removing barriers to fish passage.

Mitigation

4.25 To avoid direct and indirect harm or disturbance in line with the mitigation hierarchy the applicant should demonstrate that:

- developments are designed to avoid the risk of harm, for example by avoiding sensitive receptors in the location and footprint of the development, avoiding encroachment into waterbodies, and/or retaining the site's important habitat features;
- developments are designed and landscaped to provide green and blue corridors and avoid habitat fragmentation (for example using underpasses or green bridges to link habitats, and avoiding creating new barriers to the movement of species);
- during construction and operation, best practice will be followed to ensure that risk of disturbance or damage to species or habitats follows the mitigation hierarchy. For example, plan for construction work and dredging to be carried out at specific times to avoid sensitive times and location, such as the breeding season for wild birds and lifecycles of migratory fish.

4.26 If avoidance or reduction of harm is not possible, the applicant should include appropriate mitigation measures, in line with the mitigation hierarchy, to avoid likely significant effects as an integral part of the proposed development, including identifying where and how these will be secured in the long term. In particular, the applicant should demonstrate that:

- during construction, it will seek to ensure that activities will be confined to the minimum areas required for the works;
- during construction and operation, best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements;
- habitats will, where practicable, be restored after construction works have finished; and
- opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals.

Guidance for the decision-maker

4.27 The Secretary of State should have regard to the aims and goals of the government's Environmental Improvement Plan, the United Nations Environmental Programme Convention on Biological Diversity of 1992 and any relevant measures and targets, such as the Environment Act 2021 targets, the relevant River Basin Management Plans, and the Salmon & Freshwater Fisheries Act 1975.

4.28 In doing so, the Secretary of State should also take account of the context of the challenge of climate change. The benefits of nationally significant low carbon transport infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. However, the mitigation hierarchy will still need to be applied.

4.29 As a general principle, and subject to the specific policies below, development should, in order to adhere to the mitigation hierarchy, at first avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable and proportionate alternatives within the applicant's control, and mindful of the national interest in resilience of port capacity overall. If avoidance is not possible, minimisation of impacts and then mitigation need to be considered (as set out in paragraphs above). Where significant harm cannot be avoided or mitigated it should be compensated for as a last resort, with on-site mitigation being considered ahead of off-site. The Secretary of State will give significant weight to any residual harm. Compensation should provide gains, and be agreed with relevant nature conservation consultees, including Natural England and the EA as appropriate.

4.30 Port development proposals provide many opportunities for building in beneficial biodiversity or geological features as part of good design, such as naturalised setbacks to make space for intertidal habitat and vegetated intertidal terraces. When considering proposals, the decision-maker should maximise such opportunities in and around developments, including maximising opportunities identified in published or emerging Local Nature Recovery Strategies, using requirements or planning agreements where appropriate.

4.31 Habitat creation or enhancement packages proposed for the purposes of delivering biodiversity net gain should be secured on a long-term basis, for at least 30 years.

4.32 The decision-maker should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development clearly outweigh that harm.

4.33 In taking decisions, the Secretary of State should ensure that appropriate weight is attached to: designated sites of international, national, and local importance; irreplaceable habitats[31]; protected species and habitats; other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment, including areas prioritised for nature's recovery in the relevant local nature recovery strategies.[32]

4.34 Where a proposed development on land within or outside a Site of Special Scientific Interest is likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments), development consent should not normally be granted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest. The Secretary of State is bound by the duty placed on all public bodies in s.28G Wildlife and Countryside Act 1981 to take reasonable steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of the features by reason of which a site is of special scientific interest.

4.35 The decision-maker should give due consideration to regional or local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent.

4.36 As a public authority, the decision-maker is bound by the duties in relation to Marine Conservation Zones (MCZs) imposed by ss.125-126 Marine and Coastal Access Act 2009.

4.37 If, having followed the mitigation hierarchy, avoidance and bespoke mitigation measures are insufficient to manage the impacts on habitats and species, as a last resort, appropriate compensation measures should be sought and implemented. Compensation measures need to provide for an equivalent or greater value of biodiversity. The decision-maker should consider what appropriate requirements should be attached to any consent and/or planning obligations entered into.

4.38 The decision-maker will need to take account of the advice provided to the applicant by Natural England (or Natural Resources Wales) and/or the Marine Management Organisation (MMO) and/or the EA, and whether these organisations have granted or refused, or intends to grant or refuse, any relevant licences or permits, including protected species mitigation licences. In advance of the formal submission,

[31] Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.

[32] Estuary Edges, prepared for the PLA, may be a useful reference.

applicants are encouraged to use Natural England's Letter of No Impediment Approach and engage with Natural England.

Habitats Regulations Assessment

Applicant's assessment

4.39 Where a plan or project might affect a habitats site, either alone or in combination with other plans or projects, the competent authority (in the case of a development consent order, the Secretary of State) must undertake a Habitats Regulations Assessment (HRA). The applicant must provide the information required by the competent authority to make a decision. The applicant may prepare this information in the form of a draft HRA. The applicant should also consider agreeing an Evidence Plan with the Statutory Nature Conservation Body (SNCB) to help determine the information required.[33]

4.40 The applicant is advised to seek the early advice of the appropriate SNCB and provide such information as the Secretary of State may reasonably require to determine whether or not the plan or project should proceed to the Appropriate Assessment stage of Habitats Regulation Assessment. Plans or projects must proceed to the Appropriate Assessment stage of an HRA if the Secretary of State considers that they could have a significant effect on a habitats site.

4.41 At Appropriate Assessment stage, the implications of the plan or project for the habitats site are assessed in view of the site's conservation objectives. Mitigation measures may be taken into account at this stage. These are measures which prevent any identified adverse effect from happening as predicted. The SNCB must be formally consulted for the purposes of making the appropriate assessment and its advice considered. Such plans or projects may only proceed if, on the basis of the appropriate assessment, the Secretary of State concludes that they will not adversely affect the integrity of the habitats site. The only exception to this is if the plan or project is granted a derogation. To grant a derogation, the Secretary of State must be satisfied that there are no alternative solutions and that the plan or project must proceed for imperative reasons of overriding public interest, and that compensatory measures can be secured. The applicant must demonstrate that it has sought advice from the SNCB on whether any proposed compensation is appropriate to maintain the overall coherence of the National Sites Network.

4.42 Provision of such information will not be taken as an acceptance of adverse effects on integrity and if an applicant disputes the likelihood of adverse effects, it can provide this information without prejudice to the Secretary of State's final decision on the effects of the potential development on the habitats site. If, in these circumstances, an applicant does not supply information required for the assessment of a potential derogation, there will be no expectation that the Secretary of State will

[33] National Infrastructure Planning. Advice Note Eleven, Annex H – Evidence Plans for Habitats Regulation Assessments of Nationally Significant Infrastructure Projects

allow the applicant the opportunity to provide such information following the examination.

4.43 During the pre-application stage, and without prejudice to the formal HRA of the submitted plan or project, if the SNCB gives an early indication that, irrespective of any anticipated mitigation measures, the proposed development is highly likely to lead to adverse effects on the integrity of one or more habitats sites, the applicant must include with their application such information required to assess a potential derogation under the Habitats Regulations.[34]

Guidance for the decision-maker

4.44 Refer to para 4.1 above on biodiversity and geological conservation. In the event that Appropriate Assessment is required, the applicant must provide the decision-maker with such information as may reasonably be required to enable it to conduct the Appropriate Assessment. This should include information on any mitigation measures that are proposed to minimise or avoid likely effects.

4.45 The Secretary of State must ensure that for projects deemed to have a likely significant effect on protected habitats / species, that the project only proceeds if the assessment concludes they will not adversely affect the integrity of the site or, notwithstanding a negative assessment, there are no alternative solutions, and they must proceed for imperative reasons of overriding public interest. Alternatives should be assessed proportionately.

4.46 If the alternatives and IROPI tests are met, the Secretary of State must then also be satisfied that any requisite compensatory measures have been secured.

Dredging

4.47 Dredging requirements are very often a central element of a port development application, crucial to the initial and continuing delivery of capacity, and raising considerations for environmental assessment, and for the mitigation hierarchy and compensation.

Applicant's assessment

4.48 As with land-side works, the development should, at first, in order to adhere to the mitigation hierarchy, avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable alternatives. If avoidance is not possible, mitigation needs to be considered, and where significant harm cannot be avoided or mitigated it should be compensated for as a last resort. It will always be important to demonstrate that the mitigation hierarchy has been followed, with a presumption for the most sustainable option, so that the

[34] National Infrastructure Planning Advice Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects | National Infrastructure Planning (planninginspectorate.gov.uk)

environmental impacts of dredging and of deposition are minimised and managed appropriately.

4.49 The need to demonstrate the mitigation hierarchy is accentuated by biodiversity net gain (BNG) and is being considered as part of the development of marine net gain (MNG).

4.50 **Capital dredging**: where capital dredging (*i.e.* new dredging, or dredging after an interval of more than 10 years, beyond the depths or geographical range of prior maintenance dredges, for berth-pockets and/or channels) is required as part of the development, this will need to be subject to environmental assessment, including likely effects on protected European sites or species, and will almost certainly require a [deemed] MMO marine licence[35]. As a physical modification, it will need to be assessed under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and under OSPAR and the London Convention/Protocol. The deposit of dredged material on land for recovery or disposal will be subject to the need for a permit from the Environment Agency, or the registration of an exemption. There is no requirement for a qualified archaeologist to be on board a dredger engaged in capital dredging, although this may be appropriate where there is historical or hydrographic evidence to justify this. For further guidance on historic assets, see paras 4.261ff below.

4.51 **Maintenance dredging**: since 2014, maintenance dredging and disposal is licensable activity by the MMO, with exemptions. The Maintenance Dredging Protocol[36] guides operators and regulators on maintenance dredging activities that could potentially affect European sites around the coast of England. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and OSPAR are also relevant[37].

4.52 The Protocol provides for the environmental assessment of maintenance dredging as a programme, avoiding any need to re-assess separately every time an individual dredge is to be undertaken. This should highlight any requirement to dispose or use arisings on land, rather than at sea.

4.53 Dredging takes place over several years, in which time environmental classifications, standards and legal requirements can change. For example, a dredge campaign could span 2 or 3 cycles of River Basin Management Plan. The applicant should set out in their assessment how they will monitor the environmental impacts of their dredging activities and update their assessment and mitigation measures to ensure that they remain compliant with new or updated environmental standards, *e.g.* WFD Environmental Quality Standards.

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[35] Certain dredging activities are exempt from marine licence requirements (for example, see s.75 Marine & Coastal Access Act 2009, Marine Licensing (Exempted Activities) Order 2011/409, Arts 18, 18A, 23).

[36] http://archive.defra.gov.uk/wildlife-pets/wildlife/protect/bird-habitat/mdpe.htm. The maintenance dredging protocol is used to create a baseline document for ports undertaking dredging/disposal operations on a regular basis on which the need for an AA can be made. Any assessment in the ES should take account of the baseline document to see whether an increase to the amount of maintenance dredging required by the development will adversely affect the designated site.

[37] See details on sediment analysis and Action Levels in Marine Licensing: sediment analysis and sample plans - GOV.UK (www.gov.uk).

4.54 The applicant should indicate what effect (if any) the development will have on maintenance dredging requirements, and where necessary should ensure that a draft appropriate assessment under the Habitats Regulations for the development as a whole incorporates consequential maintenance dredging.

4.55 Dredged material from ports should be managed in accordance with the Waste Hierarchy, with consideration of the materials' characteristics (*e.g*. particle size, contamination levels) and logistical and economic feasibility. In accordance with the Waste Hierarchy, where 'prevention' is unavoidable, 'preparing for re-use' is considered the most favoured option for managing arising dredged sediment. The beneficial use of dredged sediment (BUDS) can be defined as 'using dredged material in a manner that will benefit society and the natural environment' (Laboyrie *et al*, 2018; Manning *et al*, 2021). Beneficial uses can include 'engineering' (*e.g*. risk management, construction materials) and 'environmental enhancement' (*e.g.* habitat creation) approaches. Applicants should use existing resources to fully consider and develop BUDS opportunities before considering offshore disposal. To help develop longer-term approaches to managing, sediment resources, the Dredge Sediment Resource Data Viewer should be used by applicants, working with partners where available, to support the strategic co-ordination of potential dredged sediment supply and BUDS opportunities. Disposal has the lowest priority in the Waste Hierarchy and methods include open water disposal, confined aquatic disposal, or confined disposal facilities.

4.56 A schedule for how materials will be managed from any capital and/or maintenance dredging, should be provided with the Materials Management Plan, to facilitate early characterisation of materials, and to identify where further consents or assessments may be required.

Guidance for the decision-maker

4.57 Deemed (under PA08) or separate marine licence requirements in England should be considered on the basis of advice from the MMO.

4.58 These licences will be required for the placement of any dredged materials into the sea and other tidal waters anywhere below mean High Water Spring Tide in the UK marine area (as defined in s42 MCAA09). In Wales, the Secretary of State will not be able automatically to deem marine licences under PA08. A licence may, therefore, be required from Natural Resources Wales.

Pollution control and other environmental regulatory regimes

4.59 Issues relating to discharges or emissions from a proposed project which affect air quality, water quality, land quality and the marine environment, or which include noise and vibration, may be subject to separate regulation under the pollution control framework or other consenting and licensing regimes.

4.60 The planning and pollution control systems are separate but complementary. The planning system controls the development and use of land in the public interest. It plays a key role in protecting and improving the natural environment, public health and safety, and amenity, for example by attaching requirements to allow

developments which would otherwise not be environmentally acceptable to proceed and preventing harmful development which cannot be made acceptable even through requirements.

4.61 Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit to the lowest practicable level the releases of substances to the environment from different sources. It also ensures that ambient air, water and land quality meet standards that guard against impacts to the environment or human health.

Applicant's assessment

4.62 The applicant should consult the Marine Management Organisation (MMO) in England, or the Welsh Government in Wales on nationally significant projects which would affect, or would be likely to affect, any relevant marine areas as defined in PA08 (as amended by s.23 MCAA09). The development consent may include a deemed marine licence, and the MMO will advise on what conditions should apply to the deemed marine licence. The decision-maker and MMO (or the Welsh Government) should co-operate closely to ensure that NSIPs are licensed in accordance with any relevant draft or adopted marine plan, as well as environmental legislation.

4.63 Projects covered by this NPS may be subject to the Environmental Permitting[38] regime, which also incorporates operational waste management requirements for certain activities or polluting activities, including cargo handling. When a developer applies for an Environmental Permit, the relevant regulator (usually the Environment Agency or Natural Resources Wales, but sometimes the local authority) requires that the application demonstrates that processes are in place to meet all relevant Environmental Permitting requirements.

4.64 Applicants should consult the COMAH Competent Authority (with Health and Safety Executive (HSE) as the initial point of contact, who will pass consultation matters onto the Environment Agency at pre-application stage[39] if the project is likely to need hazardous substances consent. HSE sets a consultation distance around every site with hazardous substances consent and notifies the relevant local planning authorities. The applicant should therefore consult the local planning authority at pre-application stage to identify whether its proposed site is within the consultation distance of any site with hazardous substances consent and, if so, should consult HSE for its advice on locating the particular development there.

4.65 Applicants should understand what non-planning permits / consents the development will require and consider the timings for gaining these permissions alongside the timing for gaining the DCO. They should make early contact with relevant regulators, including the Environment Agency or Natural Resources Wales and the MMO, to discuss their requirements for Environmental Permits and other consents, such as marine licences. Applicants can access enhanced (paid for) pre-application support before applying for an environmental permit. Enhanced pre-application advice is

[38] See The Environmental Permitting (England and Wales) Regulations 2010, SI 2010/675, http://www.legislation.gov.uk/uksi/2010/675/contents/made.

[39] Further information is available at the HSE's website: https://www.hse.gov.uk/coshh/.

recommended for complex or significant developments to ensure applications contain the necessary assessments to address the risks associated with the proposed activity. Applicants can also explore options, such as submitting their application in stages through this route if the application is complex or uses novel technologies. Engagement with environmental regulators for pre-application advice on the permissions required for the development is recommended at the earliest possible stage, to help with managing timescales for development and help ensure project design considers permitting requirements from the outset. Failing to plan for this early in the development process can cause delays later on.

4.66 Wherever appropriate, applicants should time the submission for applications for Environmental Permits and other necessary consents to enable parallel tracking with the application to the Secretary of State for development consent. This does not necessarily mean submitting applications at the same time. Early conversations with regulators will help to understand timescales.

Guidance for the decision-maker

4.67 The decision-maker should be satisfied that development consent can be granted, taking full account of environmental impacts and are satisfied all other necessary consent (including Environmental Permits and marine licences) can be obtained. This will require close co-operation with the Environment Agency and/or the pollution control authority, the Welsh Government and other relevant bodies, such as the MMO, Natural England or Natural Resources Wales, Drainage Boards and water and sewerage undertakers, to ensure that, in the case of potentially polluting developments:

- the relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework; and

- the effects of existing sources of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits and targets.

4.68 In considering an application for development consent, the decision-maker should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges which are part of the environmental permitting system. The decision-maker should work on the assumption that the relevant pollution control regime, other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity will be properly applied and enforced by the relevant regulator. It should act to complement but not seek to duplicate it.

4.69 Where hazardous substances consent is applied for, the decision-maker will consider whether to make an order directing that hazardous substances consent shall be deemed to be granted alongside making an order granting development consent. The decision-maker should consult the COMAH Competent Authority (with HSE as the initial point of contact, who will pass consultation matters on to the EA) about this.

4.70 HSE will assess the risks based on the development consent application. Where HSE does not advise against the decision-maker granting the consent, it will also recommend whether the consent should be granted subject to any conditions.

4.71 The decision-maker should not refuse consent on the basis of regulated impacts unless it has good reason to believe that any relevant necessary operational pollution control permits or licences or other consents will not subsequently be granted.

Flood risk

4.72 Flooding is a natural process that plays an important role in shaping the natural environment. However, flooding threatens life and causes substantial damage to property. The effects of weather events on the natural environment, life and property can be increased in severity, both as a consequence of decisions about the location, design and nature of settlement and land use, and as a potential consequence of future climate change. Although flooding cannot be wholly prevented, its adverse impacts can be avoided or reduced through good planning and management.

4.73 Climate change over the next few decades is likely to mean milder, wetter winters and hotter, drier summers in the UK, while sea levels will continue to rise. Within the lifetime of NSIPs, these factors will lead to increased flood risks in areas susceptible to flooding, and to an increased risk of flooding in some areas which are not currently thought of as being at risk. The applicant and the decision-maker should take account of the policy on climate change adaptation in paras 3.90ff.

4.74 The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process, to avoid inappropriate development in areas at risk of flooding and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, including 'water compatible' development, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall. Main elements of port infrastructure that require a waterside location (*e.g*. docks, wharves) are water-compatible development, but other elements associated with the port may fall under a different vulnerability classification (*e.g*. installations requiring hazardous substances consent, offices). Different vulnerabilities should be reflected in the Flood Risk Assessment, in accordance with Planning Practice Guidance. The Government is committed to requiring Sustainable Drainage Systems (SuDS) in new developments.

Applicant's assessment

4.75 Applications for projects in the following flood zone locations should be accompanied by a Flood Risk Assessment:

- applications in Flood Zones 2 and 3, which represent a medium and high probability of river or sea flooding;

- applications in Flood Zone 1, which represent a low probability of river and sea flooding, that involve: projects of 1 hectare or greater, projects which may be subject to other sources of flooding (local watercourses, surface water, groundwater or

reservoirs), projects where the flood map for planning or the local planning authority's Strategic Flood Risk Assessment shows the site will be at increased risk of flooding during its lifetime, projects in areas where the Environment Agency has notified the local planning authority that there are critical drainage problems, or projects that involve increasing the flood vulnerability classification and development may be subject to sources of flooding other than rivers or sea.

4.76 The minimum requirements for FRAs are that they should:

- be appropriate to the scale, nature and location of the development and proportionate to the degree of flood risk;
- consider the risk of flooding arising from the project, in addition to the risk of flooding to the project;
- take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made. Considering the durability and difficulty with adapting permanent structural elements of ports, a lifetime of 100 years is likely to be a suitable starting point;
- be undertaken by competent people, as early as possible in the process of preparing the proposal;
- consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure;
- consider the vulnerability of those using the site, including arrangements for safe access and escape;
- consider and quantify the different types of flooding (whether from natural or human sources and including joint and cumulative effects) and identify flood risk reduction measures, so that assessments are fit for the purpose of the decisions being made;
- consider the effects of a range of flooding events, including extreme events on people, property, the natural and historic environment and river and coastal processes;
- include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that this is acceptable for the particular project;
- consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems;
- consider if there is a need to be safe and remain operational during a worst-case flood event over the development's lifetime; and
- be supported by appropriate data and information, including historical information on previous events.

4.77 Further guidance can be found in the National Planning Policy Framework and applicants should have particular regard to the guidance on Flood Risk and Coastal Change. Guidance for Wales is in TAN 15.

4.78 Applicants for projects which may be affected by, or may add to, flood risk should arrange pre-application discussions with the decision-maker and the Environment Agency, and, where relevant, other bodies such as Internal Drainage Boards, sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators. Such discussions should identify the likelihood and possible extent and nature of the flood risk, to help scope the FRA, and identify the information that will be required by the decision-maker to reach a decision on the application when it is submitted. The decision-maker should advise intending applicants to undertake these steps where they appear necessary but have not yet been addressed.

4.79 If the Environment Agency has concerns about the proposal on flood risk grounds, the applicant should discuss these concerns with the Environment Agency and take all reasonable steps to agree ways in which the proposal might be amended, or additional information provided, which would satisfy the Environment Agency's concerns.

Risks within ports

4.80 In broad terms it will be in promoters' own interests that full account of climate change impacts and of the increased probability of extreme weather events is taken in applications, so that no commercial loss will be experienced through inadequacy of infrastructure.

4.81 The Government's view is that, when assessing the commercial resilience aspects of the port facility, there is no 'public good' need, on national resilience grounds, to require a higher specification than will secure commercial resilience of the individual facility, notwithstanding that some types of severe weather may affect all ports in a region or along a particular stretch of coastline, for example from a storm surge. This NPS provides more generally for resilience and diversity of ports provision. Applicants will be in the best position to make a commercial judgement on appropriate adaptation measures to manage the risk from climate change as it affects their own facilities. The commercial judgement should be informed by an understanding of climate risks on the applicant's ports infrastructure and associated infrastructure (*e.g.* road and rail links), supported by a climate risk assessment.

Flood risk outside the port area

4.82 The applicant needs to consider the impact of the port development on the risk of flooding outside the port area. Development should not, after mitigation if necessary, increase flood risk elsewhere.

Associated development

4.83 Associated development may include facilities that do not have to be located on or close to the port estate. Wherever technically feasible and economically reasonable, land-based facilities should be directed to sites at low probability of flooding from all sources. In addition to the above requirements, a Sequential Test should be applied to demonstrate that there are no reasonably available sites which would be appropriate to the type of development or land-use proposed, in areas with a significantly lower probability of flooding.

Mitigation

4.84 To satisfactorily manage flood risk, arrangements are required to manage surface water and the impact of the natural water cycle on people and property. Development should incorporate sustainable drainage systems (SuDS), unless there is clear evidence that this would be inappropriate. Applications should be supported by a SuDS Strategy, demonstrating how the National Standards for SuDS will be met.

4.85 In this document the term Sustainable Drainage Systems (SuDS) refers to the whole range of sustainable approaches to surface water drainage management, including, where appropriate:

- source control measures, including rainwater recycling and drainage;
- infiltration devices to allow water to soak into the ground, which can include individual soakaways and communal facilities;
- filter strips and swales, which are vegetated features that hold and drain water downhill, mimicking natural drainage patterns;
- filter drains and porous pavements to allow rainwater and run-off to infiltrate permeable material below ground and provide storage if needed;
- basins and ponds to hold excess water after rain and allow controlled discharge that avoids flooding; and
- flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding.

4.86 Site layout and surface water drainage systems should cope with events that exceed the design capacity of the system, so that excess water can be safely stored on or conveyed from the site without adverse impacts.

4.87 The surface water drainage arrangements for any project should be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect.

4.88 It may be necessary to provide surface water storage and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged

from the site. There may be circumstances where it is appropriate for infiltration attenuation storage to be provided outside the project site, if necessary through the use of a planning obligation. Where infiltration drainage is proposed, they should not cause pollution to surface or groundwater quality.

4.89 Any impacts from the proposed development on existing drainage infrastructure, such as outfalls, should be identified. The applicant should demonstrate how these impacts will be managed to avoid increasing the risk of flooding or pollution.

4.90 A sequential approach should be applied to the layout and design of the project. More vulnerable uses should be located on parts of the site at lower risk of flooding. This could involve assessing the development in component parts, such as port infrastructure, storage and laydown areas, offices, essential sleeping, ancillary transport and evacuation routes and locating the most vulnerable elements in areas of lowest risk, where practical, and ensuring that safe access and escape routes are available. Applicants should seek opportunities to use open space for multiple purposes, such as amenity, wildlife habitat and flood storage uses. Opportunities should be taken to lower flood risk by reducing the built footprint of previously-developed sites and using SuDS.

4.91 Essential infrastructure which must be located in flood risk areas should be designed to remain operational when floods occur.

4.92 It should be demonstrated how opportunities to provide, improve or enable flood risk management have been identified and incorporated into the proposals, including through developer contributions and opportunities to work with natural processes[40]. This should be informed by existing or emerging flood strategies and schemes and through consultation with relevant risk management authorities to ensure that the proposals are compatible with existing and future flood risk management. Land should be safeguarded from development that is required, or likely to be required, for current or future flood and coastal risk management, including for access, asset maintenance and/or construction activities. Where new flood defences are incorporated into the port, they should tie in appropriately with existing or planned defences. Preference should be demonstrated towards 'passive' options where practical and feasible. Where 'active' flood defences are required (*e.g*. gates, barriers) then it should be demonstrated how the residual risks will be managed and any operational controls (*e.g*. open/close protocol).

4.93 The receipt of and response to warnings of floods is an essential element in the management of the residual risk of flooding. Flood warning and evacuation plans should be in place for those areas at an identified risk of flooding. Applicants should take advice from the emergency services when producing an evacuation plan for the project as part of the FRA. Any emergency planning documents, flood warning and evacuation procedures that are required should be identified in the FRA.

[40] https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/working-with-natural-processes-to-reduce-flood-risk

Guidance for the decision-maker

4.94 When flood risk is a factor in determining an application for development consent, the Secretary of State should be satisfied that, where relevant:

- the application is supported by an appropriate Flood Risk Assessment;
- the Sequential Test has been satisfactorily applied as part of site selection and, if required, the Exception Test.
- When determining an application, the Secretary of State should be satisfied that flood risk will not be increased elsewhere and only consider development appropriate in areas at risk of flooding where (informed by a Flood Risk Assessment, following the Sequential Test and, if required, the Exception Test), it can be demonstrated that:
- within the site, the most vulnerable development is in areas of lowest flood risk unless there are overriding reasons to prefer a different location;
- development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed, including by emergency planning. Sustainable drainage systems should be incorporated unless there is clear evidence that this would be inappropriate.

4.95 For construction work which has drainage implications[41], approval for the project's drainage system will form part of any development consent issued by the Secretary of State. The Secretary of State will therefore need to be satisfied that the proposed drainage system complies with Technical Standards published by Ministers[42]. In addition, the Development Consent Order, or any associated planning obligations, will need to make provision for the adoption and maintenance of any Sustainable Drainage Systems, including any necessary access rights to property. Sustainable Drainage Systems should deliver multifunctional benefits and help to achieve Biodiversity Net Gain. The Secretary of State should be satisfied that the most appropriate body is being given the responsibility for maintaining any Sustainable Drainage Systems, taking into account the nature and security of the infrastructure on the proposed site. The responsible body could include, for example, the applicant, the landowner, the relevant local authority and the relevant Sustainable Drainage Systems Approval Body or another body such as the Internal Drainage Board. Where infiltration type Sustainable Drainage Systems are proposed, pre-applications with the Environment Agency are recommended to ensure they do not cause pollution to surface and groundwater quality and applicants should consider the role of Sustainable Drainage Systems management trains to control and treat run-off.

4.96 If the Environment Agency continues to have concerns and objects to the grant of development consent on the grounds of flood risk, the decision-maker can grant consent, but would need to be satisfied before deciding whether or not to do so that

[41] As defined in paragraph 7(2) of Schedule 3 to the Flood and Water Management Act 2010. Certain organisations may be exempt from any National Standards under Schedule 3 to the Flood and Water Management Act 2010 and associated secondary instruments.

[42] The National Standards set out requirements for the design, construction, operation and maintenance of Sustainable Drainage Systems and may include guidance to which the Secretary of State should have regard.

all reasonable steps have been taken by the applicant and the Environment Agency to try to resolve the concerns.

4.97 The decision-maker should not consent development in Flood Zone 2 (in England or Zone B in Wales), unless it is satisfied that the Sequential Test requirements have been met. It should not consent development in Flood Zone 3 (or Zone C) unless it is satisfied that the Sequential and Exception Test requirements have been met (see below). However, when seeking development consent on a site allocated in a development plan through the application of the Sequential Test, informed by a strategic flood risk assessment, applicants need not apply the Sequential Test, but should apply the sequential approach to locating development within the site.

The Sequential Test

4.98 The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).

The Exception Test

4.99 If, following application of the Sequential Test, it is not possible, consistent with wider sustainability objectives, for the project to be located in areas with a lower risk of flooding, the Exception Test may need to be applied. The test provides a method of managing flood risk while still allowing necessary development to occur.

4.100 It would only be appropriate to move onto the Exception Test in cases where, accounting for wider sustainable development objectives, application of relevant local and national policies would provide a clear reason for refusing development in any alternative locations identified. Table 2 of the Planning Practice Guidance for Flood Risk and Coastal Change sets out the circumstances when the Exceptions Test will be required.

4.101 Both elements of the Exception Test will have to be passed for development to be consented. For the Exception Test to be passed it should be demonstrated that:

- the project provides wider sustainability benefits to the community[43] that outweigh flood risk; and

[43] These would include the benefits of, including the need for, the infrastructure set out in section 2.

- an FRA must demonstrate that the project will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere and, where possible, will reduce flood risk overall.

4.102 The decision maker should be satisfied that the development will not prevent the delivery of flood management schemes and activities that are current, planned or reasonable to predict, *e.g.* from building on land that is needed for future defences, or on access routes needed to maintain defences

Coastal change

4.103 For this section, coastal change means physical change to the shoreline, *i.e.* erosion, coastal landslip, permanent inundation and coastal accretion. Where onshore infrastructure projects are proposed on the coast, coastal change is a key consideration. Some kinds of coastal change happen very gradually; others over shorter timescales. Some are the result of purely natural processes; others, including potentially significant modifications of the coastline or coastal environment resulting from climate change, are wholly or partly man-made. This section is concerned both with the impacts which port infrastructure can have as a driver of coastal change and with how to ensure that developments are resilient to ongoing and potential future coastal change.

4.104 The construction of a port development may involve, for example, dredging, dredge spoil deposition, marine landing facility construction and flood and coastal protection measures, which could result in direct effects on the coastline, seabed, heritage assets and marine ecology and biodiversity.

4.105 Additionally, indirect changes to the coastline and sea bed might arise because of a hydrodynamic response to some of these direct changes. This could lead to localised or more widespread coastal erosion or accretion and changes to offshore features such as submerged banks and ridges and marine biodiversity.

4.106 Coastal change can directly and indirectly influence coastal flood risk. For example, accelerated coastal erosion can increase the extent of areas that are permanently or more frequently inundated. It can also constrain the range of viable coastal management options, including the ability to implement approaches set out in Shoreline Management Plans. Additionally, activities such as dredging can alter local flood dynamics, further affecting flood risk.

Applicant's assessment

4.107 Where relevant, applicants should undertake coastal geomorphological and sediment transport modelling, for inclusion in the environmental statement, to predict and understand impacts and help identify relevant mitigating or compensatory measures, with adherence to the mitigation hierarchy.

4.108 The ES (see para 4.200) should include an assessment of the effects on the coast. In particular, applicants should assess:

- the impact of the proposed project on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes, the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast;

- the implications of the proposed project on strategies and policies for managing the coast, as set out in the management approaches in Shoreline Management Plans, coastal change management areas, any relevant marine plans, River Basin Management Plans, local nature recovery strategies and capital programmes for maintaining flood and coastal defences;

- the effects of the proposed project on marine ecology, biodiversity and protected sites;

- the effects of the proposed project on maintaining coastal recreation sites and features; and

- the vulnerability of the proposed development including ancillary infrastructure such as road and rail links to coastal change, taking account of climate change, during the project's operational life and any decommissioning period. This should be with reference to the EA's National Coastal Erosion Risk Map, and any relevant SMPs[44] and CCMAs. The ES should demonstrate how the layout and design of the development responds to these risks, including any mitigation.

4.109 Proposals for new or expanded port infrastructure within Coastal Change Management Areas may need to be accompanied by a coastal change vulnerability assessment, demonstrating whether the requirements of paras 4.112ff can be met.

4.110 For any projects involving dredging or disposal into the sea, the applicant should consult the Marine Management Organisation (MMO) or Natural Resources Wales at an early stage.

4.111 The applicant should be particularly careful to identify any adverse impacts on protected features of Marine Protected Areas (MPAs), encompassing Highly Protected Marine Areas, Marine Conservation Zones (MCZs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar sites, actual and potential Sites of Community Importance and Sites of Special Scientific Interest.

Mitigation

4.112 Applicants should propose appropriate mitigation measures to address adverse physical changes to the coast, in consultation with the MMO, the Welsh Government or the Environment Agency, Local Planning Authorities, other statutory consultees, Coastal Protection Authorities, Coastal Partnerships and other coastal groups, as it considers appropriate.

44 https://environment.data.gov.uk/shoreline-planning

Guidance for the decision-maker

4.113 The decision-maker should be satisfied that the proposed development will be resilient to coastal change, taking account of climate change, during the project's operational life and any de-commissioning period.

4.114 The decision-maker should not normally consent new development where the proposal could inhibit sediment flow or have an impact on coastal processes at other locations. Impacts on coastal processes must be managed to minimise adverse impacts on other parts of the coast. Where such proposals are brought forward, consent should only be granted where the decision-maker is satisfied that the benefits (including need) of the development outweigh the adverse impacts.

4.115 The decision-maker should ensure that applicants have restoration plans for areas of foreshore disturbed by direct works and will undertake pre and post-construction coastal monitoring arrangements with defined triggers for intervention and restoration.

4.116 The decision-maker should examine the broader context of coastal protection around the proposed site, and the influence in both directions, *i.e*. coast on site, and site on coast.

4.117 The decision-maker should consult MMO or the Welsh Government on projects which could impact on coastal change (or both where impacts cross administrative boundaries), particularly those requiring a marine licence, since the MMO or the Welsh Government may also be involved in considering other projects which may have coastal impacts.

4.118 In addition to this NPS, the decision-maker must have regard to the Marine Policy Statement and marine plans, as provided for in the Marine and Coastal Access Act 2009. The decision-maker should also have regard to the relevant Shoreline Management Plans and Coastal Change Management Areas for the coastline in which the plans are being considered. When assessing applications in a Coastal Change Management Area, the Secretary of State should not grant development consent unless it is demonstrated that the development:

- will be safe over its planned lifetime and will not have an unacceptable impact on coastal change;
- will be consistent with the special character of the coast covered by designations, and recognise the importance of its conservation;
- provides wider sustainability benefits; and
- does not hinder the creation and maintenance of a continuous signed and managed route around the coast.

4.119 Substantial weight should be attached to the risks of flooding and coastal change. Where relevant the links between flooding and coastal change should be recognised, for example where development impacts on intertidal habitat this may increase risks of overtopping to adjacent defences, or large capital dredging works may increase

tidal propagation upstream, raising peak water levels. The applicant must demonstrate that full account has been taken of the policy on assessment and mitigation at paras 4.71ff above of this NPS on flood risk, taking account of the potential effects of climate change and coastal change on these risks as discussed above. The decision-maker should consider what appropriate mitigation requirements might be attached to any grant of development consent.

Traffic and transport impacts

4.120 Goods (and passengers and employees) enter and leave the port by various combinations of road, rail and water transport (and in some cases by pipeline). The balance of modes used can have a variety of impacts on the surrounding road, rail and water infrastructure and consequently on the existing users of this infrastructure as well as the environment. Passengers and employees of ports and port-related businesses use both public and private transport, mainly road, and their travel can also affect congestion on connecting networks.

4.121 The most significant of these impacts, in the case of unitised traffic, is likely to be on the surrounding road infrastructure, especially in rural communities or those with less developed transport infrastructure. The impact from increased traffic would, unless mitigating measures are taken, be likely to be an increase in congestion. There are also environmental impacts of road transport in terms of noise and emissions.

4.122 Delays at ports can occur for several reasons, including adverse weather conditions, border disruption and industrial relations issues. Such delays can often result in a significant backlog of goods waiting to depart by ship. This kind of event can have an adverse impact on connecting road infrastructure if the port estate is not able to provide sufficient capacity for the parking of heavy goods vehicles (HGVs).

4.123 Transport, therefore, is important to ensuring the port is capable of operating efficiently and effectively; and the consideration and mitigation of transport impacts is an essential part of the Government's wide policy objective for sustainable development as set out at paras 2.6ff of this NPS.

Applicant's assessment

4.124 If a project is likely to have significant transport implications, the applicant's ES (see paras 3.29ff) should include a transport appraisal, using the methodology stipulated in Department for Transport guidance (TAG), WelTAG for developments in Wales, or any successor to such methodology. Applicants should consult National Highways and/or the relevant highway authority, as appropriate, on the assessment and mitigation of the impact. The assessment should distinguish between the construction, operation and decommissioning project stages as appropriate.

4.125 Where appropriate, the applicant should prepare a travel plan, including demand management and monitoring measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking, wheeling and cycling, to reduce the need for parking associated with the proposal, to offer genuine modal choice and improve modal interchange for goods, employees and passengers to mitigate transport impacts.

4.126 If additional transport infrastructure is needed or proposed, it should always include good quality walking, wheeling and cycle routes, and associated facilities (changing/storage etc.) needed to enhance active transport provision and ensure improved accessibility to public transport to improve user choice for journeys. Opportunities for modal shift and interchange for the transport of goods should also be considered including careful consideration of the opportunities offered by innovations in transport technologies and providing the infrastructure needed to support these technologies (*e.g.* improved digital connectivity and service).

4.127 Applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits. Guidance has been issued[45] in England[46] which explains the circumstances where this may be possible, although the Government cannot guarantee in advance that funding will be available for any given uncommitted scheme at any specified time. For developments in Wales, the matter should be discussed with the Welsh Government.

4.128 In the case of container terminal development, account should be taken of the projected proportion of transhipment of containers and its variation over time as, for example, the proportion of direct-call may grow with overall demand, thus reducing the need for inbound containers to be transhipped from vessels not making a UK call.

4.129 Transport assessment should include all traffic accessing and leaving the port, and how this would cumulate with traffic not generated by the development under application. Opportunities to boost rail freight connectivity should be considered where feasible.

Mitigation: demand management

4.130 Where mitigation is needed, possible demand management measures must be considered. This could include identifying opportunities to:

- consolidate trips, therefore minimising the number of trips generated;
- locate development in areas with high levels of connectivity and already accessible by active travel and public transport;
- provide opportunities for shared mobility;
- enabling travel by a sustainable mode that is more beneficial to the network;
- retime travel outside of the known peak times;
- reroute to use parts of the network that are less busy.

4.131 If feasible and operationally reasonable, such mitigation should be required before considering conditions for the provision of new inland transport infrastructure to deal

[45] http://www.dft.gov.uk/pgr/regional/fundingtransportinfrastructure/

[46] Please note that no separate guidance has been issued for Wales. The Welsh Government discusses funding arrangements with developers on a project-specific basis.

with remaining transport impacts. All stages of the project should carefully consider opportunities to improve modal interchange and modal shift of freight from road to more sustainable alternatives and consider how port diversification can help to reduce the miles travel to process those goods. In addition, appropriate provision of the infrastructure needed to support the use of alternative fuels including charging for electric vehicles should also be considered, having regard to the Government's Environmental Improvement Plan.

4.132 Demand management measures may in particular include lorry-booking arrangements aimed at spreading peak traffic within the working day. When the reasonableness of such measures is being determined, inflexibility of timing for arrival or departure at the other end of the journey (for example, at a distribution depot), should not be accorded great weight. This is because it is the Government's policy to encourage flexibility at both ends of the journey wherever possible.

4.133 The decision-maker should have regard to the cost-effectiveness of demand management measures compared with new transport infrastructure, as well as the aim to secure more sustainable patterns of transport development when considering mitigation measures.

Mitigation: modal share

4.134 The modal share of traffic entering and leaving the port, where relevant, needs to be considered objectively in the context of any external congestion and environmental costs. Broadly speaking, rail and coastal or inland shipping should be encouraged over road transport, where cost-effective, but requirements or obligations, if they are necessary in order to avoid significant detriment to network users, should be evidence-based and present efficient incentives.

4.135 Because of the scale economies of consolidated loads, rail share is likely to be viable for unitised traffic in the larger container terminals, and there may be a possibility of encouraging some ro-ro traffic onto rail connections. For some forms of bulk traffic, rail may be the commercially predominant inland mode. Coastal shipping and inland waterways may be viable for certain flows.

4.136 For containers, the gauge clearance of the rail route to the most likely destinations for traffic should be considered, specifically whether clearance to W10 gauge at least is available or should be provided for to enable 9'6" 'hi-cube' containers to be transported on conventional wagons. Further relevant guidance on rail connectivity and strategic rail freight interchanges may be found in the NPS for National Networks.

4.137 The use of inland waterways for the movement of goods to and from the port should be considered. Similarly, the prospect of promoting coastal shipping as an alternative to road and rail transport should be considered.

4.138 Planning obligations or requirements should be structured flexibly so as to keep to a reasonable minimum the risk that either applicants or network providers would be required to incur costs providing infrastructure that turned out to be under-used. Such

measures might include various mechanisms, such as traffic-level triggers, shadow-tolling and/or escrow arrangements to guarantee funding.

4.139 Target modal shares for rail or coastal shipping may sometimes be appropriate, but are not mandatory, and the main emphasis should be on incentive mechanisms rather than rigid target-setting. Such shares should not be regarded as ends in themselves, but as indicators of the outcome of cost-effective transport obligations. Where such targets are to be set, there should always be an agreed understanding of the broad mechanisms by which they can be achieved, and 'early warning' decision points so that corrective measures may be taken if appropriate.

4.140 Rail obligations should not be sought to such an extent that the estimated net social cost of delivering them (net of the benefits of road vehicle mileage avoided) exceeds the corresponding net social cost of accommodating the marginal traffic on the roads. In assessing whether this is so, regard should be had to TAG (and WelTAG in Wales) or other methodological guidance issued by DfT.

4.141 Rail (or coastal-shipping) shares should not simply be read across from a previous development to the one under consideration, as the most efficient transport outcome may differ significantly according to all the circumstances of the case.

Mitigation: HGVs

4.142 All stages of the project should support and encourage freight being carried by environmentally beneficial means, as well as making appropriate provision for and infrastructure needed to support the use of alternative fuels including charging-points for electric vehicles, including zero-emission HGVs.

4.143 Where a development, including any container or ro-ro development, is likely to generate or attract substantial HGV traffic, during construction and/or in operation, the decision-maker may attach requirements to a consent that:

- control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routeing of such movements;

- make sufficient provision for HGV parking and other high-quality facilities for their drivers, either on the port estate or at dedicated facilities elsewhere, to avoid ‘overspill’ parking on public roads during normal operating conditions. Developments should be designed with sufficient road capacity and parking provision (whether on- or off-site) to avoid the need for prolonged queuing on approach roads, and particularly for uncontrolled on-street HGV parking on nearby public roads in normal traffic operating conditions, and allowing reasonable estimates for peak traffic patterns and fluctuations during normal operations;

- ensure satisfactory arrangements, taking account of the views of road network providers and of the responsible police force(s), for dealing with reasonably foreseeable abnormal disruption. Where such effects are likely to cause queuing on the strategic road network or significant queuing on local roads, the applicant should include the outcome of consultation with the relevant police force(s) as to traffic

management measures that will be brought into effect, what the procedures will be for triggering them, and attribution of costs.

4.144 Ports can provide valuable facilities for the checking of heavy goods vehicles. Port development that includes ro-ro facilities should be planned in such a way that facilities can be provided for enforcement agencies to operate checks as and when appropriate.

Mitigation: access

4.145 Where development would worsen accessibility for employees, port users or others, such impacts should be mitigated so far as reasonably possible.

4.146 Employee travel assessment should be undertaken for all major port development. Where this identifies an impact which requires mitigation, the above demand management and modal share mitigation strategies should be considered, in addition to opportunities to maximise the use of walking, wheeling and cycling.

Funding of infrastructure

4.147 The essential principle is that the developer is expected to fund provision of infrastructure required solely to accommodate users of the development without detriment to pre-existing users. Where there is a case for bringing forward schemes which help meet the 'background' growth in 'third-party' traffic, the guidance explains the circumstances in which the Government would expect to 'co-fund' in respect of such benefits and the methodology that should be employed to determine funding shares.

4.148 The Government cannot guarantee in advance that funding will be available for any given uncommitted scheme at any specified time. In relation to planning for local networks, see section 9 of the National Planning Policy Framework (NPPF).

4.149 Applicants should engage, from the earliest stages of project development, with network providers, to assess whether in the case of a specific major port development co-funding by Government may be appropriate, in recognition of third-party benefits.

4.150 Parties should endeavour to agree in advance, in as much detail as possible, the scope of works, the precise basis on which costs and risks will be attributed, and arrangements for dispute resolution. If the decision-maker is not satisfied that draft development consent obligations/requirements or other forms of agreement are sufficiently precise, it may invite the parties to engage in further negotiations to arrive at a more detailed agreement before the granting of consent will be countenanced.

4.151 A timetable should be set for such negotiations. With proper frontloading of the application process, it should be possible to get all parties aligned in time to complete any necessary agreements before the decision is made. If there is failure to reach agreement within that time, appropriate requirements may be imposed.

4.152 If the applicant suggests that the costs of meeting any obligations and/or requirements would make the proposal economically unviable, this should not in itself justify the relaxation by the decision-maker of any obligations or requirements needed to secure the mitigation.

Guidance for the decision-maker

4.153 A new NSIP may give rise to substantial impacts on the surrounding transport infrastructure, and the Secretary of State should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction and operation phases of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the Secretary of State should consider requirements to mitigate adverse impacts on transport networks arising from the development, as set out above. Applicants may also be willing to enter into planning obligations for funding infrastructure and otherwise mitigating adverse impacts.

4.154 Provided that the applicant is willing to enter into planning or transport obligations, or requirements can be imposed to mitigate transport impacts identified in the TAG/WelTAG transport assessment, with attribution of costs calculated in accordance with the Department for Transport's guidance, then development consent should not be withheld and appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.

Waste management

4.155 Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste in the first instance and by preserving resources through preparation for re-use and recycling wherever possible. Where this is not possible, waste management regulation ensures that waste is disposed of in a way that is least damaging to the environment and to human health.

4.156 Sustainable waste management is implemented through the 'waste hierarchy':

- prevention;
- preparing for re-use;
- recycling;
- other recovery, including energy recovery; and
- disposal.

4.157 Disposal of waste should only be considered where other waste management options are not available or where it is the best overall environmental outcome.

4.158 Adopting a circular economy approach to resource-use from the outset is encouraged, for example, through sustainable procurement exercises that require reporting on material flows, resource efficiency, and regulatory compliance.

4.159 All large infrastructure projects are likely to generate hazardous and non-hazardous waste during the construction, operation and decommissioning phases.

4.160 The Environment Agency's (EA) Environmental Permitting (EP) regime incorporates operational waste management requirements for certain activities. When an applicant applies to the EA for an Environmental Permit, the EA will require the application to demonstrate that processes are prescribed to meet all relevant EP requirements.

Applicant's assessment

4.161 The applicant should demonstrate that it will adhere to the waste hierarchy, minimising the volume of waste produced and maximising reuse and recycling for waste that cannot be avoided. Where possible, applicants are encouraged to use low carbon materials, sustainable sources, and local suppliers. Consideration should be given to circular economy principles wherever practicable, for example by using longer-lasting materials efficiently, optimising the use of secondary materials and how the development will be maintained and decommissioned.

4.162 The applicant should set out the arrangements that are proposed for managing any waste produced and prepare a Site Waste Management Plan. The arrangements described and the Management Plan should characterise the waste streams and include information on the proposed waste recovery and disposal system for all waste generated by the development and an assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation.

4.163 Applicants are encouraged to prepare a Materials Management Plan to inform the use of construction best practices in relation to storing materials in an adequate and protected place on site to prevent waste, or degeneration of valuable materials, for example, from accidental damage or excessive weathering. The use of Building Information Management (BIM) tools or similar to record the materials used in construction can help to reduce waste and realise further value in future decommissioning of facilities, by identifying materials that can be recycled or reused.

4.164 Infrastructure projects should look to use legal and sustainable timber and other Modern Methods of Construction where possible.

Guidance for the decision-maker

4.165 The decision-maker should consider the extent to which the applicant has proposed an effective system for managing hazardous and non-hazardous waste arising from

the construction, operation and decommissioning of the proposed development. It should be satisfied that:

- any such waste will be properly managed, both on-site and off-site;
- the waste from the proposed facility can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area; and
- adequate steps have been taken to give consideration to the circular economy, minimise the volume of waste arisings, and of the volume of waste arisings sent to disposal, except where that is the best overall environmental outcome.

4.166 Where necessary, the decision-maker should use requirements or obligations to ensure that appropriate measures for waste management are applied. When giving consent, the decision-maker may wish to include a requirement on revision of waste management plans at reasonable intervals.

4.167 Where the project will be subject to the Environment Agency's Environmental Permitting regime, waste management arrangements during operations will be covered by the permit and the considerations set out in section 3 will apply.

Water quality and resources

4.168 Infrastructure development can have adverse effects on the water environment, including groundwater, inland surface water, transitional waters[47] and coastal waters. During the construction, operation and decommissioning phases, it can lead to increased demand for water, involve discharges to water and cause adverse ecological effects resulting from physical modifications to the water environment.

4.169 There may also be an increased risk of spills and leaks of pollutants to the water environment. These effects could lead to adverse impacts on health or on protected species and habitats (see section on biodiversity at para 4.1) and could, in particular, result in surface waters, groundwater or protected areas[48] failing to meet environmental objectives established under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

4.170 Under Environmental Permitting Regulations, applicants are required to manage surface water during construction by treating surface water runoff from exposed topsoil prior to discharging and to limit the discharge of suspended solids from e.g. areas of hard standing, during operation. Consent may be required for working near to a river from the Environment Agency and a pollution incident response plan needs

[47] Transitional waters are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters, but which are substantially influenced by freshwater flows.

[48] Protected areas are areas which have been designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water.

to exist. An abstraction or impoundment licence to manage surface water and groundwater resources may be required during construction works.

Applicant's assessment

4.171 Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of, the proposed project on water quality, water resources and physical characteristics of the water environment, and how this might change due to the impact of climate change on rainfall patterns and consequently water availability across the water environment, as part of the Environmental Statement (ES) or equivalent. When necessary an Environmental Impact Assessment, WFD Assessment and/or HRA should be done in accordance with current planning guidance.

4.172 The applicant should make early contact with the relevant regulators, including the local authority, the Environment Agency and Marine Management Organisation, where appropriate, for relevant licensing and environmental permitting requirements. Applicants should make early contact with the Environment Agency and water companies[49] with their proposed water requirements to understand whether water is available.

4.173 Applicants should avoid locating potentially polluting activities in the most sensitive locations for groundwater, in particular Source Protection Zone 1 (SPZ) and close to nationally important drinking water supplies. Applicants should consider implementing protective measures to control the risk of pollution to groundwater, for example, using protective barriers.

4.174 The ES should describe:

- the existing quality of waters (surface water and groundwater) affected by the proposed project and the impacts of the proposed project on water quality, and how climate change will impact on this, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges;

- existing water resources affected by the proposed project and the impacts of the proposed project on water resources, and how climate change will impact on this, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates including any impact on or use of mains supplies and reference to Abstraction Licensing Strategies) and also demonstrate how proposals minimise the use of water resources and water consumption in the first instance;

- existing physical characteristics of the water environment (including quantity and dynamics of flow, groundwater levels and groundwater flow paths) affected by the proposed project and any impact of physical modifications to these characteristics;

[49] Or the relevant regional water resources group, who have been set up to bring together water companies operating in each of England's regions and other major water users.

- any impacts of the proposed project on water bodies or protected areas under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and source protection zones around potable groundwater abstractions;
- the potential impact of development of a port on other water users; and
- any cumulative effects.

Mitigation

4.175 The decision-maker should consider whether mitigation measures are needed for operational, construction and decommissioning phases over and above any which may form part of the project application. A construction management plan may help codify mitigation at that stage.

4.176 The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice. For example, designated areas for storage and unloading, with appropriate drainage facilities, should be clearly marked.

4.177 The impact on local water resources can be minimised through planning and design for the sustainable and efficient use of water, including water recycling.

4.178 For mitigation measures on impacts affecting biodiversity, see paras 4.1ff.

4.179 The Secretary of State should be satisfied that there will be adequate environmental capacity for the proposed development in relation to water quality and water availability. This should include adequate water supply and the wastewater treatment infrastructure needed for the development.

Guidance for the decision-maker

4.180 Activities that discharge to the water environment are subject to pollution control. The considerations set out in section 4 on the interface between planning and pollution control therefore apply. These considerations will also apply in an analogous way to the abstraction and impoundment licensing regime[50] regulating activities that take water from the water environment, and to the control regimes relating to works to, and structures in, on, or under a controlled water.

4.181 The decision-maker will generally need to give impacts on the water environment more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

4.182 As noted earlier, the decision-maker should satisfy itself that a proposal has regard to the River Basin Management Plans and the requirements of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

[50] Abstraction licensing provisions are expected to change through removal of licensing exemptions.

(including Regulation 19), including those on priority substances, protected areas and groundwater in Regulation 13. The specific objectives for particular river basins are set out in River Basin Management Plans. The decision-maker should also consider the interactions of the proposed project with other plans such as marine plans, Water Resources Management Plans, Shoreline/Estuary Management Plans and local nature recovery strategies.

4.183 The decision-maker should consider whether appropriate requirements should be attached to any development consent and/or planning agreements entered into to mitigate adverse effects on the water environment.

Air quality and emissions

4.184 Increases in emissions of pollutants during the construction or operation phases of port developments could result in the worsening of local air quality and could contribute to adverse impacts on human health, on protected species and on habitats.

4.185 The Government has legally binding targets to reduce emissions of five key air pollutants (particulate matter under 2.5 microns diameter {$PM_{2.5}$}, nitrogen dioxide, sulphur dioxide, ammonia and non-methane volatile organic compounds) by 2030. In addition, two new air quality targets for 2040 – one for annual mean concentrations of $PM_{2.5}$ and a population exposure target for $PM_{2.5}$ – have been set under the Environment Act 2021. These targets are in addition to the maximum permissible levels for pollutants set out in the Air Quality Standards Regulations (2010). Local authorities have statutory duties to address exceedances of air quality objectives set by regulations under Part IV of the Environment Act 1995, and have regard for the Air Quality Strategy. As well as having direct effects on public health, habitats and biodiversity, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas) which can be transported great distances by weather systems.

4.186 The air quality impacts of port development, including surface transport modes projected to access the facilities, should be considered in relation to the PM2.5 targets set by regulations under Chapter 1 of the Environment Act 2021, and to other air quality objectives, ceilings and standards. This should include impacts on biodiversity such as designated sites, priority habitats and protected species.

4.187 The geographical extent and distribution of the effects of air pollutants can cover a large area, well beyond an individual development. Air quality impacts are generated by all types of infrastructure development to varying extents. Ports can contribute to air pollution, since they bring together several sources of pollutants:

- large volumes of HGV traffic emit pollutants such as nitrogen oxides and particulates, with emissions exacerbated by congestion and stop-start driving conditions;

- emissions (especially $PM_{2.5}$, sulphur dioxide and nitrogen oxides) from ships entering the port and using coastal routes, estuaries and inland waterways can also be significant;

- certain cargoes such as cements and aggregates can cause local dust pollution;
- non-road mobile machinery used within the port, for example to unload and load ships, emit pollutants; and
- impact of potential new fuels, *e.g*. storage and use of ammonia, has the potential to affect air quality from fugitive emissions, accidental release and fuel slip from engines.

4.188 Infrastructure development can have adverse effects on air quality. The construction, operation and decommissioning phases can involve emissions to air, which could lead to adverse impacts on human health, on protected species and habitats, or on the wider countryside. Impacts on protected species and habitats are covered at 4.1 on biodiversity and geological conservation.

4.189 Emissions of sulphur dioxide (SO_2) from shipping are being tackled through the strengthening of emissions standards and the application of SO_2 Emissions Control Areas (SECAs). Emissions from road transport have been falling as a result of technical improvements in engine and catalyst design, and it is expected that vehicles, including HGVs, will continue to reduce their emissions, with the aid of government support.

Mitigation

4.190 Where a project is likely to lead to a breach of any relevant statutory air quality limits, objectives or targets, the applicant should work with the relevant authorities to secure appropriate mitigation measures.

4.191 Mitigation measures may affect the project design, layout, construction and operation, and may consist of measures to improve air quality beyond the immediate locality of the port as some air pollutants can travel long distances.

4.192 The decision-maker should consider whether mitigation measures are needed both for operational and construction emissions over and above any that may form part of the project application. A construction management plan may help codify mitigation at this stage.

4.193 In doing so, the decision-maker should have regard to the conditions and advice in the Air Quality Strategy or any successor to it, and to available DEFRA $PM_{2.5}$ target guidance.

4.194 The mitigations identified in the section on transport impacts will help mitigate the effects of air emissions from transport.

4.195 Ports can, to an extent, influence the modal share of inland connections to port facilities, which may help to reduce local air pollution. For example, where peak concentrations of one or more pollutants have a high impact or risk exceedance of limits, vehicle booking systems may help to alleviate such effects, as well as minimising congestion. The decision-maker should consider the extent to which the applicant intends to influence the modal share of inland connections to/from the ports

and the robustness of these proposals. See transport assessment at paras 4.119ff above.

4.196 Where a development is in or very near an Air Quality Management Area or Clean Air Zone, applicants should engage with the relevant local authority to ensure the project is compatible with the Local Air Quality Action Plan.

4.197 With respect to all statutory air quality limits, objectives and targets other than those set under The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (SI 2023/96), all reasonable mitigation action should be taken. At a minimum, the proposed mitigation measures should ensure that the net impact of a project does not delay compliance with those objectives.

4.198 With respect to SI 2023/96, the applicant should take all reasonable steps to reduce emissions of $PM_{2.5}$ and its precursor pollutants in the construction and operational stage of the development by following available DEFRA guidance.

4.199 While developing and implementing mitigation measures the Local Authority should be consulted particularly where emissions from the port are likely to impact within an Air Quality Management Area.

4.200 Where a development is expected to lead to a deterioration of air quality, the applicant should justify why the level of mitigation proposed is deemed to be reasonable.

Shore-side electrical power

4.201 Local air pollution may also be abated through the provision of shore-side fixed electrical power to replace ships' generators while in port, sometimes known as 'cold ironing'. The technology remains most appropriate for large vessels expected to be in berth for prolonged periods, although advances over time may extend the range of circumstances in which shore-side power may be cost-beneficial.

4.202 All proposals should either include reasonable advance provisions (such as ducting and spaces for sub-stations) to allow the possibility of future provision of cold-ironing infrastructure, or give reasons as to why it would not be economically and environmentally worthwhile to make such provision.

4.203 The decision-maker should consider each case objectively to determine whether provision of cold-ironing infrastructure (rather than provisions to allow this in the future) should be included in the development. This consideration should be based on the dwell time of vessels and technical compatibility of the ships intended to call at the port, as well as on the emissions and other impacts. Where supra-national instruments requiring the use of cold-ironing appear to be imminent, the decision-maker should take this into account.

4.204 Where shore-side electricity supply infrastructure is proposed, account needs to be taken of the prospective impact on the National Grid of meeting the power demands and therefore the costs to electricity supply providers of doing so without impacts on reliability for other users.

Vessel charging

4.205 Electric vessel charging for maritime should reduce emissions for those vessels that have battery electric engines, and uses similar infrastructure to that used for shore-side power. Advance provision for electric vessel charging should accordingly be made wherever there is a realistic possibility of usage, and especially in conjunction with shore-side power.

Applicant's assessment

4.206 Where the project is likely to have significant effects on air quality, or affect the UK's ability to comply with the Air Quality Standards Regulations 2010, or adversely affect the relevant local authority's ability to comply with The Air Quality (England) Regulations 2000, the applicant should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement (ES). Applicants should also refer to guidance relating to the Environmental Impact Assessment at paras 3.29ff.

4.207 The ES should describe:

- existing air quality emissions and concentrations;
- forecasts of emissions and concentrations at the time of opening, assuming that the development is not built (the future baseline) and taking account of the impact of the development;
- any significant air emissions, their mitigation and any residual effects, distinguishing between the construction and operation stages and taking account of any significant emissions from any road traffic generated by the project;
- the predicted absolute emission levels from the proposed project, after mitigation methods have been applied;
- potential impacts on nearby designated habitats from air pollutants;
- the proximity and nature of nearby receptors which could be affected, including those more sensitive to poor air quality;
- potential future risks such as from the use of new shipping fuels such as ammonia and hydrogen.

4.208 In addition, applicants should consider The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 by following available Defra guidance, including interim guidance.

Guidance for the decision-maker

4.209 The decision-maker should generally give air quality considerations substantial weight where a project, after taking into account mitigation, would lead to

deterioration in air quality in an area, or lead to a breach or delay in meeting national air quality limits. However, air quality considerations will also be important where substantial changes in air quality are expected, even if this does not lead to any breaches of any national air quality limits.

4.210 In all cases the decision-maker must take account of any relevant statutory air quality limits, objectives and targets. The decision-maker should be satisfied that there will be adequate environmental headroom in local air quality thresholds for the protection of human health and habitats. The decision-maker should consider whether mitigation measures put forward by the applicant are acceptable. In doing so, the decision-maker should have regard to relevant guidance including within the Air Quality Strategy or any successor to it, Local Air Quality Management guidance and any available Defra PM2.5 target guidance.

4.211 Air quality considerations are likely to be particularly relevant where developments are proposed:

- within or adjacent to Air Quality Management Areas including roads identified as being above Limit Values; and

- where changes are sufficient to bring about the need for a new Air Quality Management Area; or bring about changes to exceedances of the Limit Values.

4.212 Where a project is likely to lead to a breach of any relevant statutory air quality limits, objectives or targets, the developers should work with the relevant authorities to secure appropriate mitigation measures to allow the proposal to proceed. In the event that a project will lead to non-compliance with a statutory limit, the decision-maker should refuse consent.

4.213 The decision-maker should refuse consent where, after taking into account mitigation, the air pollutant emissions resulting from the proposed scheme will either:

- result in a zone/agglomeration which is currently reported as complying with the Air Quality Standards Regulations 2010 becoming non-compliant; or

- seriously adversely affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the Examining Authority at the examination.

4.214 However, any increase at all in air pollutant emissions is not a reason in itself to refuse development consent, though any deterioration in air quality should be given appropriate weight in coming to the decision.

Dust, odour, artificial light, smoke, steam and insect infestation

4.215 During the construction, operation and decommissioning of port infrastructure there is potential for the release of a range of emissions such as odour, dust, steam, smoke, artificial light and infestation of insects. All have the potential to have a detrimental impact on amenity or cause a common law nuisance or statutory

nuisance under Part III, Environmental Protection Act 1990 (see section 3). Insect and vermin infestation may also have implications for public health. Note that pollution impacts from some of these emissions (*e.g*. dust, smoke) are covered in paras 4.158ff on air emissions.

4.216 Insect and vermin infestation may be a particular issue with regard to storage of fuels for energy from waste (EfW) generating stations, as they may be attracted to biodegradable waste stored and processed at the facility. Odour is also likely to arise during the reception, storage and handling/processing of incoming biodegradable waste.

4.217 Because of the potential effects of these emissions and infestation, and in view of the availability of the defence of statutory authority against nuisance claims, as described at para 3.107 above, it is important that the potential for these impacts is considered by the decision-maker.

4.218 For port NSIPs of the type covered by this NPS, some impact on amenity for local communities is likely to be unavoidable. The aim should be to keep impacts to a minimum and at a level that is acceptable, based on robust assessment and best practice mitigation. Any residual impacts should be made clear as part of the applicant's assessment.

Applicant's assessment

4.219 The applicant should assess the potential for insect infestation and emissions of odour, dust, steam, smoke and artificial light to have a detrimental impact on amenity, as part of the Environmental Statement.

4.220 In particular, the assessment provided by the applicant should describe:

- the type, quantity and timing of emissions;
- aspects of the development which may give rise to emissions;
- premises or locations that may be affected by the emissions;
- effects of the emission on identified premises or locations; and
- measures to be employed in preventing or mitigating the emissions.

4.221 The applicant is advised to consult the relevant local planning authority and, where appropriate, the Environment Agency (EA) about the scope and methodology of the assessment.

Mitigation

4.222 Mitigation measures may include one or more of the following:

- engineering: prevention of a specific emission at the point of generation; control, containment and abatement of emissions if generated;

- lay-out: adequate distance between source and sensitive receptors; reduced transport or handling of materials; and

- administrative: limiting operating times; restricting activities allowed on the site; implementing management plans.

4.223 Storage and handling of waste and residues should be carried out within defined areas, *e.g.* bunkers or silos, within enclosed building at EfW generating stations.

4.224 To minimise potential for infestation, the time between reception, processing and combustion of waste may be limited by consent requirements.

Guidance for the decision-maker

4.225 The decision-maker should satisfy itself that all reasonable steps have been taken, and will be taken, to minimise any detrimental impact on amenity from insect infestation and emissions of odour, dust, steam, smoke and artificial light.

4.226 If the decision-maker does grant development consent for a project, it should consider whether there is a justification for all of the authorised project (including any associated development) being covered by a defence of statutory authority against nuisance claims. If it cannot conclude that this is justified, it should disapply in whole or in part the defence through provision in the development consent or harbour order.

4.227 Where the decision-maker believes it appropriate, it may consider attaching requirements to the development consent, in order to secure certain mitigation measures.

4.228 In particular, the decision-maker should consider whether to require the applicant to abide by a scheme of management and mitigation concerning insect infestation and emissions of odour, dust, steam, smoke and artificial light from the development. The decision-maker should consider the need for such a scheme to reduce any loss to amenity which might arise during the construction, operation and decommissioning of the development. A construction management plan may help codify mitigation at that stage.

Noise and vibration

4.229 Excessive noise can have wide-ranging impacts on quality of human life and health such as annoyance, sleep disturbance, cardiovascular disease and mental ill-health. It can also have an impact on the environment and the use and enjoyment of areas of value such as quiet places and areas with high landscape quality. The Government's policy on noise is set out in the Noise Policy Statement for England.[51] It promotes good health and good quality of life through effective noise management. Similar considerations apply to vibration, which can also cause damage to buildings.

[51] As set out in the Noise Policy Statement for England.

In this section, in line with current legislation, references to 'noise' in this paragraph and below apply equally to assessment of impacts of vibration.

4.230 Noise resulting from a proposed development, for example underwater noise due to piling during construction and from ships in operation, can also have adverse impacts on wildlife and biodiversity, including during construction, operation and decommissioning. Noise effects, including underwater noise, of the proposed development on ecological receptors should be assessed by the decision-maker in accordance with the Biodiversity section of this NPS.

4.231 Factors which will determine the likely noise impact include:

- the inherent operational noise from the proposed development, and its characteristics;
- the proximity of the proposed development to noise-sensitive premises (including residential properties, schools and hospitals) and noise-sensitive areas (including certain parks and open spaces);
- the proximity of the proposed development to quiet or tranquil places and other areas that are particularly valued for their acoustic environment or landscape quality; and
- the proximity of the proposed development to designated sites where noise may have an adverse impact on protected species or other wildlife.

Applicant's assessment

4.232 Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:

- a description of the noise-generating aspects of the development proposal leading to noise impacts on the marine and terrestrial environment, including the identification of any distinctive tonal characteristics, if the noise is impulsive, whether the noise contains a particular high or low-frequency content, or any temporal characteristics of the noise;
- identification of noise-sensitive premises and areas and noise-sensitive species that may be affected;
- the characteristics of the existing marine and terrestrial noise environment;
- a prediction of how the noise environment will change with the proposed development:
- in the shorter term during the construction period;
- in the longer term during the operating life of the infrastructure; and
- at particular times of the day, evening and night as appropriate.

- an assessment of the effect of predicted changes in the noise environment on any noise sensitive areas, including an assessment of any likely impact on health and quality of life/well-being where appropriate, particularly among those disadvantaged by other socio-economic factors, who are often disproportionately affected by noise and noise sensitive species; and

- measures to be employed in mitigating the effects of noise.

4.233 The nature and extent of the noise assessment should be proportionate to the likely noise impact.

4.234 The noise impact of ancillary activities associated with the development, such as increased road and rail traffic movements, or other forms of transportation, should be considered.

4.235 Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards.[52] For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards which also give examples of mitigation strategies.

4.236 The applicant should consult the Environment Agency and Natural England, or Natural Resources Wales, and the MMO in relation to marine protected species in England, as necessary and in particular with regard to assessment of noise on protected species or other wildlife. The results of any noise surveys and predictions may inform the ecological assessment. The seasonality of potentially affected species in nearby sites may also need to be taken into account.

Mitigation

4.237 The decision-maker should consider whether mitigation measures are needed both for operational and construction noise over and above any which may form part of the project application. In doing so, the decision-maker may wish to impose requirements. Any such requirements should take account of the guidance set out in para 55ff of the National Planning Policy Framework, or any successor to it, and where applicable in Planning Practice Guidance.

4.238 Mitigation measures for the project should be proportionate and reasonable and may include one or more of the following:

- engineering: reduction of noise at point of generation and containment of noise generated;

- lay-out: adequate distance between source and noise-sensitive receptors; incorporating good design to minimise noise transmission through screening by natural barriers or other buildings;

[52] For example, for industrial noise, BS 4192: 1997 – Method for rating industrial noise affecting mixed residential and industrial areas, and BS 8233: 1999 – Sound insulation and noise reduction for buildings.

- administrative: limiting operating times of source; restricting activities allowed on the site; specifying acceptable noise limits; and taking into account seasonality of wildlife in nearby designated sites.

4.239 In certain situations, and only when all other forms of noise mitigation have been exhausted, it may be appropriate for the decision-maker to consider requiring noise mitigation through improved sound insulation to dwellings, or in extreme cases, compulsory purchase of affected properties, as a means of consenting otherwise unacceptable development.

Guidance for the decision-maker

4.240 The project should demonstrate good design through selection of:

- the quietest cost-effective plant available;
- containment of noise within buildings wherever possible;
- optimisation of plant layout to minimise noise emissions; and
- where possible, the use of landscaping, bunds or noise barriers or other mechanisms to reduce noise transmission.

4.241 The decision-maker should be satisfied that the proposals will meet the following aims:

- avoid significant adverse impacts on the environment, human health and quality of life from noise;
- mitigate and minimise other adverse impacts on health and quality of life from noise; and
- where possible, contribute to improvements to health and quality of life through the effective management and control of noise.

4.242 When preparing the development consent order, the decision-maker should consider including measurable requirements or specifying the mitigation measures to be taken to ensure that actual noise levels from the project do not exceed those described in the assessment or any other estimates on which the decision-maker's decision was based.

Landscape and visual impacts

4.243 The landscape and visual effects of proposed projects will vary on a case-by-case basis according to the type of development, its location and the landscape character and setting of the proposed development. In this context, references to landscape should be taken as covering seascape and townscape, where appropriate.

4.244 Port development can have a negative impact on landscape character and visual amenity. **Error! Reference source not found.**The impact can be the result of the physical character of the port development including the introduction of lighting, additional vehicle movements and noise. These impacts can be important in locations which are acknowledged tourist destinations and/or important for recreation activities, both on and offshore. Designated Landscapes, National Parks, the Broads and National Landscapes (areas of outstanding natural beauty) are particularly sensitive to major development.

4.245 S.85 Countryside and Right of Way Act 2000 (CRoW Act) (as amended by s.245 Levelling-up and Regeneration Act 2023) requires relevant authorities', in exercising or performing any function that affect National Landscapes (formerly Areas of Outstanding Natural Beauty) in England, to seek to further the purpose of conserving and enhancing the natural beauty of those National Landscapes.

Applicant's assessment

4.246 The applicant should carry out a landscape and visual assessment and report it. A number of guides have been produced to assist in addressing landscape issues, for example Guidelines on Landscape and Visual Impact Assessment (GLVIA Third Edition) published by the Landscape Institute. The landscape and visual impact assessment for the proposed project should include the impacts during construction and operation, and reference to any landscape character assessments. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England. For seascapes, applicants should consult the Seascape Character Assessment and the Marine Plan Seascape Character Assessments, and any successors to them.

4.247 The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project, potential impacts on views (including protected views) and visual amenity. This should include any noise and/or light pollution effects, including on local amenity, dark skies, tranquillity, and nature conservation. The assessment should also demonstrate how noise and/or light pollution from construction and operational activities on residential amenity, sensitive locations, and other receptors will be minimised. The assessment should also consider the identified special qualities and key characteristics off National Parks, the Broads and National Landscapes (as set out in the management plans for these designations).

4.248 Any statutory undertaker commissioning or undertaking works in relation to, or so as to affect land in England's National Parks and the Broads, or National Landscapes, must comply with the duties in s.245 Levelling Up and Regeneration Act 2023 including the duty to further the purposes noted above. Government planning policy advises that major development should not take place within these areas unless exceptional circumstances apply.

Mitigation

4.249 The project should be designed, and the scale minimised, to avoid or where unavoidable, mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of development may result in a significant operational constraint and reduction in function. In exceptional circumstances where mitigation could have a very significant benefit and warrant a small reduction in function, the Secretary of State may decide that the benefits of the mitigation to reduce the landscape effects outweigh the marginal loss of function.

4.250 Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site. Depending on the size and type of proposed project. Good Design in the form the choice of colours and materials, and landscaping schemes should be used. Materials and designs of buildings, including lighting should always be given careful consideration. For projects with the potential to affect designated landscapes the relevant management plan(s) should for these areas should be referred to for information to assist with the design of the scheme.

4.251 Depending on the topography of the surrounding terrain and areas of population, it may be appropriate to undertake landscaping off site, although if such landscaping was proposed to be consented by a Development Consent Order, it would have to be included within the order limits for that application. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant point.

4.252 Applicants should consider how landscapes can be enhanced using landscape management plans, as this will help to enhance environmental assets where they contribute to landscape and townscape quality and can reinforce or enhance landscape features and character.

Guidance for the decision-maker: landscape impact

4.253 Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All these factors need to be considered in judging the impact of a project on landscape. Projects need to be designed carefully, having regard to siting, operational and other relevant constraints. The aim should be to minimise harm to the landscape, where adverse impacts are unavoidable, providing reasonable mitigation and delivering landscape enhancement measures where possible and appropriate.

Guidance for the decision-maker: development proposed within nationally designated areas

4.254 National Parks, the Broads and National Landscapes have been confirmed by the Government as having the highest status of protection in relation to landscape and

natural beauty. Each of these designated areas has specific statutory purposes.[53] The conservation of the landscape and natural beauty should be given great weight by the decision-maker in deciding on applications for development consent in these areas. The Secretary of State should be satisfied that the scheme's design and delivery comply with the duty in s.245 of the Levelling Up and Regeneration Act 2023. The Secretary of State should refuse development consent in England's National Parks, the Broads and National Landscapes unless there are exceptional circumstances, where the benefits outweigh the harm and where it can be demonstrated that it is in the public interest. Consideration of such applications should include an assessment of:

- the need for the development, including in terms of any national considerations[54], and the impact of consenting, or not consenting it, upon the local economy;
- the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way[55]; and
- any detrimental effect on the environment, the landscape, natural beauty and recreational opportunities, and the extent to which that would be moderated.

4.255 Where consent is given in these areas, the Secretary of State should be satisfied that the applicant has ensured that the project will be carried out to high environmental and design standards and includes measures to enhance the landscape, natural beauty and other aspects of the environment. Where necessary, the Secretary of State should consider the imposition of appropriate requirements to ensure these standards are delivered.

Guidance for the decision-maker: developments outside nationally designated areas which might affect them

4.256 The duty to seek to further the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid harming the purposes of designation, and such projects should be designed sensitively, given the various siting, operational and other relevant constraints. This should include projects in England which may have impacts on National Scenic Areas in Scotland.

4.257 However, the fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.

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[53] For an explanation of the duties which will apply to the Secretary of State, see *Duties on relevant authorities to have regard to the purposes of National Parks, AONBs (now National Landscapes) and the Norfolk and Suffolk Broads* at http://archive.defra.gov.uk/rural/documents/protected/npaonb-duties-guide.pdf

[54] National considerations should be understood to include the national need for, and benefits of, the infrastructure set out in part 1, as well as the contribution of the infrastructure to the national economy.

[55] See paras 3.46ff for the general factors that should frame the decision-maker's consideration of alternative sites or routes.

Guidance for the decision-maker: developments in other areas

4.258 Outside nationally designated areas, there are local landscapes that may be valued locally and protected by local policy. Where a local development document in England or a local development plan in Wales has policies based on landscape character assessment, and has identified landscapes of local value, these should be paid particular attention. However, such areas should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development.

4.259 The decision-maker should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation.

Guidance for the decision-maker: visual impact

4.260 The decision-maker will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast.

4.261 It may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors. This may assist the decision-maker in judging the weight it should give to the assessed visual impacts of the proposed development.

Historic environment

4.262 The construction, operation and decommissioning of port infrastructure has the potential to result in adverse impacts on the historic environment.

4.263 The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, landscaped and planted or managed flora. Those elements of the historic environment that hold value to this and future generations because of their historic, archaeological, architectural or artistic interest are called ‘heritage assets'. A heritage asset may be any building, monument, site, place, area or landscape, or any combination of these. The sum of the heritage interests that a heritage asset holds is referred to as its significance.[56]

[56] Save for the term 'Designated Heritage Asset', these and other terms used in this section are defined in Annex 2 to PPS5, or any successor to it. The PPS5 Practice Guide contains guidance on their interpretation. Additionally, part of the purpose of designating National Parks is in order to protect their cultural heritage and the conservation of cultural heritage is an important consideration in all Areas of Outstanding Natural Beauty.

4.264 Some heritage assets have a level of significance that justifies official designation. Categories of designated heritage assets are: World Heritage Sites; Scheduled Monuments; Listed Buildings; Protected Wreck Sites[57]; Protected Military Remains; Registered Parks and Gardens; Registered Battlefields (England only); Conservation Areas; and Registered Historic Landscapes (Wales only).[58]

4.265 There are heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which may have significance. These include:

- those that have yet to be formally assessed for designation;
- those that have been assessed as capable of being designated but which the Secretary of State has decided not to designate;
- those that are incapable of being designated by virtue of being outside the scope of the Ancient Monuments and Archaeological Areas Act 1979.

Applicant's assessment

4.266 As part of the ES, the applicant should provide a description of the significance[59] of the heritage assets affected by the proposed development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum, the applicant should have consulted the relevant Historic Environment Record[60] and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.

4.267 Where a development site includes, or the available evidence suggests it has potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.

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[57] The issuing of licences to undertake works on Protected Wreck Sites in English waters is the responsibility of the Secretary of State for Culture, Media and Sport and does not form part of development consents issued by the Secretary of State. In Wales it is the responsibility of Welsh Ministers. The issuing of licences for Protected Military Remains is the responsibility of the Secretary of State for Defence.

[58] Additionally, part of the purpose of designating National Parks is to protect their cultural heritage and the conservation of cultural heritage is an important consideration in all Areas of Outstanding Natural Beauty.

[59] Its value to people now and in the future because of its heritage interest.

[60] Historic Environment Records (HERs) are information services maintained by local authorities and National Park Authorities with a view to providing access to resources relating to the historic environment of an area for public benefit and use. Details of HERs in England are available from the Heritage Gateway website at http://www.heritagegateway.org.uk/Gateway/CHR. For Wales, details of HERs can be obtained through the Historic Wales Portal at http://jura.rcahms.gov.uk/nms/start.jsp. Historic England and Cadw hold additional information about heritage assets in English or Welsh waters. This should also be consulted where relevant.

4.268 The possibility of damage to buried features from underwater disposal of dredged material should be considered.

4.269 The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.

Guidance for the decision-maker

4.270 In considering applications, the decision-maker should seek to identify and assess the significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset, taking account of:

- evidence provided with the application;
- any designation records;
- Rapid Coastal Zone Assessments by Historic England where relevant;
- the Historic Environment Record and similar sources of information;
- the heritage assets themselves;
- the outcome of consultations with interested parties; and
- where appropriate and when the need arises to understand the significance of the heritage assets, expert advice.

4.271 The absence of designation for heritage assets does not indicate lower significance. If the evidence before the decision-maker indicates to it that a non-designated heritage asset of the type described may be affected by the proposed development then the heritage asset should be considered subject to the same policy considerations as those that apply to designated heritage assets.

4.272 The decision-maker should also consider the impacts on other non-designated heritage assets, as identified either through the development plan making process (local listing) or through the decision-making process based on clear evidence that the assets have a significance that merits consideration in its decisions, even though those assets are of lesser value than designated heritage assets.

4.273 In considering the impact of a proposed development on any heritage assets, the decision-maker should consider the particular nature of the significance of the heritage assets and the value that they hold for this as well as future generations. This understanding should be used to avoid or minimise conflict between conservation of the significance and proposals for development.

4.274 The decision-maker should take into account the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they can make to sustainable communities

and economic vitality.[61] The decision-maker should consider the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials and use. The decision-maker should have regard to any relevant local authority development plans or local impact report on the proposed development in respect of the factors set out in footnote 59 below.

4.275 There should be a presumption in favour of the conservation of designated heritage assets and, the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced, and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building park or garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including Scheduled Monuments; registered battlefields; grade I and II* listed buildings; grade I and II* registered parks and gardens; and World Heritage Sites should be wholly exceptional.

4.276 Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that, the greater the harm to the significance of the heritage asset, the greater the justification will be needed for any loss. Where the application will lead to substantial harm to or total loss of significance of a designated heritage asset, the decision-maker should refuse consent unless it can be demonstrated that the substantial harm to or loss of significance is necessary to deliver substantial public benefits that outweigh that loss or harm. Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. The policies in the previous paragraphs apply to those elements that do contribute to the significance. When considering proposals, the decision-maker should consider the relative significance of the element affected and its contribution to the significance of the World Heritage Site or Conservation Area as a whole.

4.277 Where loss of significance of any heritage asset is justified on the merits of the new development, the decision-maker should consider imposing a requirement on the consent or requiring the applicant to enter into an obligation that will prevent the loss occurring until it is reasonably certain that the relevant part of the development is to proceed.

4.278 When considering applications for development affecting the setting of a heritage asset, the decision-maker should treat favourably applications that preserve those elements of the setting that make a positive contribution to, or that better reveal the significance of, the asset. When considering applications that do not do this, the

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[61] This can be by virtue of:
- heritage assets having an influence on the character of the environment and an area's sense of place;
- heritage assets having a potential to be a catalyst for regeneration in an area, particularly through leisure, tourism and economic development;
- heritage assets being a stimulus to inspire new development of imaginative and high quality design;
- the re-use of existing fabric, minimising waste; and
- the mixed and flexible patterns of land use in historic areas that are likely to be, and remain, sustainable.

decision-maker should weigh any negative effects against the wider benefits of the application. The greater the negative impact on the significance of the asset, the greater the benefits that will be needed to justify approval.

Recording

4.279 A documentary record of our past is not as valuable as retaining the heritage asset, and therefore the ability to record evidence of the asset should not be a factor in deciding whether consent should be given.

4.280 Where loss of the whole or a material part of a heritage asset's significance is justified, the decision-maker should require the developer to record and advance understanding of the asset's significance before this is lost. The extent of the requirement should be proportionate to the nature and level of the asset's significance. Developers should be required to publish this evidence and deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated to a local museum or other public depository willing to receive it.

4.281 Where appropriate, the decision-maker should impose requirements on a consent to ensure that such work is carried out in a timely manner in accordance with a written scheme of investigation that meets the requirements of this section and has been agreed in writing with the relevant local authority (and, where the development is in waters adjacent to England, the Marine Management Organisation and Historic England[62] or where it is in waters adjacent to Wales, Natural Resources Wales (and Cadw), and that the completion of the exercise is properly secured.

4.282 Where the decision-maker considers there to be a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the decision-maker should consider requirements to ensure that appropriate procedures (for example, a written scheme of investigation) are in place for the survey, identification, analysis and treatment of such assets discovered before and during construction.

Land and water use including open space, green infrastructure and Green Belt

4.283 A port infrastructure project will have direct effects on the existing use of the proposed site and may have indirect effects on the use and users, or planned use and users, of land in the vicinity for other types of development. Given the likely

[62] For guidance see Ports: the impact of development on the maritime historic environment (Historic England, 2006) or any successor document.

locations of port infrastructure projects, there may be particular effects on open space[63], including 'green' and 'blue' infrastructure.[64]

4.284 The Government's policy is to ensure there is adequate provision of high-quality open space, (including 'green' and 'blue' infrastructure) and sports and recreation facilities to meet the needs of local communities.[65] Connecting people with open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living.

4.285 Green and blue infrastructure can also enable developments to provide positive environmental, social, health and economic benefits. Green infrastructure includes green space such as parks and woodlands but also other environmental features such as street trees, hedgerows and green walls and roofs. It also includes blue infrastructure such as canals, rivers, streams, ponds lakes and their borders. Well designed and managed green and blue infrastructure provides multiple benefits at a range of scales. It can contribute to biodiversity recovery, sequester carbon, absorb surface water, sequester pollutants, absorb noise and reduce high temperatures. Green infrastructure, in particular, will also play an increasingly important role in mitigating and adapting to the impacts of climate change. The Green Infrastructure Framework – Principles and Standards for England can be used to consider green infrastructure in development and plan for good quality and targeted creation or improvement.

4.286 The re-use of previously developed land for new development can make a major contribution to sustainable development by reducing the amount of countryside and undeveloped greenfield land that needs to be used. This may not be possible for some forms of infrastructure. Applicants should demonstrate clearly why the use of brownfield land is not appropriate where this is the case and otherwise should maximise the use of brownfield land.

4.287 Development of land will affect soil resources, including physical loss of and damage to soil resources, through land contamination and structural damage. Indirect impacts may also arise from changes in the local water regime, organic matter content, soil biodiversity and soil process.

4.288 Where pre-existing land contamination is being considered within a development, the objective is to ensure that the site is suitable for its intended use. Risks would require consideration in accordance with the contaminated land statutory guidance at a minimum.[66]

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[63] Open space is defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. However, in applying the policies in this section, open space should be taken to mean all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity.

[64] Green infrastructure is a network of multi-functional green spaces, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities. Blue infrastructure is urban infrastructure related to water management.

[65] For Wales, relevant guidance is set out in the Welsh Government's Technical Advice Note 16: Sport, Recreation and Open Space.

[66] https://www.gov.uk/government/publications/contaminated-land-statutory-guidance

4.289 Green Belts, defined in a local planning authority's development plan in England or regional strategic development plans in Wales[67], are situated around certain cities and large built-up areas. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and permanence. For further information on the purposes of Green Belt policy see section 13 of the NPPF or any successor to it.

Applicant's assessment

4.290 The ES should identify existing and proposed[68] land uses near the project, as well as any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan.

4.291 Applicants will need to consult the local community on their proposals to build on open space, green infrastructure, sports or recreational buildings and land. Taking account of the consultations, applicants should consider providing new or additional open space, including green infrastructure, sport or recreation facilities, to substitute for any losses as a result of their proposal. When considering proposals for green infrastructure, Applicants should refer to the Green Infrastructure Framework. Applicants should use any up-to-date local authority assessment or, if there is none, provide an independent assessment to show whether the existing open space, sports and recreational buildings and land are surplus to requirements. Where compulsory acquisition is proposed, the requirements of s.131 Planning Act 2008 must be met.

4.292 During any pre-application discussions with the applicant, the local planning authority (LPA) should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements.

4.293 Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5. Applicants should also identify any effects and seek to minimise impacts on soil quality, taking into account any mitigation measures proposed. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination.

4.294 Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.

4.295 The general policies controlling development in the countryside apply with equal force in Green Belts, but there is, in addition, a general presumption against inappropriate development within them. Such development should not be approved,

[67] Or else so designated under The Green Belt (London and Home Counties) Act 1938.
[68] For example, where a planning application has been submitted.

except in very special circumstances. Applicants should therefore determine whether their proposal, or any part of it, is within an established Green Belt and, if it is, whether their proposal may be inappropriate development within the meaning of Green Belt policy – see para 4.308 below.

4.296 However, infilling or redevelopment of major developed sites in the Green Belt, if identified as such by the local planning authority, may be suitable for some forms of nationally significant infrastructure. It may help to secure jobs and prosperity without further prejudicing the Green Belt, or even offer the opportunity for further environmental improvement. Applicants should refer to the relevant criteria[69] on such developments in Green Belts.

Mitigation

4.297 Applicants should avoid, then minimise the direct effects of a project on the existing use of the proposed site, or proposed uses near the site, by the application of good design principles, including the layout of the project.

4.298 Where green infrastructure is affected, the decision-maker should, if necessary, consider imposing requirements to ensure the connectivity of the green infrastructure network is maintained and any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space, including appropriate access to new coastal access routes.

4.299 The decision-maker should also consider whether mitigation of any adverse effects on green infrastructure or open space is adequately provided for by means of any planning obligations, for example to exchange land and provide for appropriate management and maintenance agreements. Any exchange land should be at least as good in terms of size, usefulness, attractiveness, quality and accessibility. Alternatively, where ss. 131 and 132 PA08 apply, replacement land provided under those sections will need to conform to the requirements of those sections.

4.300 Where a proposed development has an impact upon a Mineral Safeguarding Area (MSA), the decision-maker should ensure that appropriate mitigation measures have been put in place to safeguard mineral resources.

4.301 Where a project has a sterilising effect on land use, there may be scope for this to be mitigated through, for example, using the land for nature conservation or wildlife corridors, or for parking and storage in employment areas.

4.302 Rights of way, National Trails and other rights of access to land (*e.g.* open access land) are important recreational facilities, *e.g.* for walkers, cyclists and horse riders. The decision-maker should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails and other rights of way. Where this is not the case, the decision-maker should consider what

[69] See National Planning Policy Framework.

appropriate mitigation requirements might be attached to any grant of development consent.

4.303 There should also be consideration of the impact of displacing recreational boaters or recreational boating facilities in the area of development, including clubs, training centres, marinas, slipway access and space on the water as well as ashore.

Guidance for the decision-maker

4.304 Where the project conflicts with a proposal in a development plan, the decision-maker should take account of the stage which the development plan document in England or local development plan in Wales has reached in deciding what weight to give to the plan for the purposes of determining the planning significance of what is replaced, prevented or precluded. The closer the development plan document in England or local development plan in Wales is to being adopted by the LPA, the greater the weight which can be attached to it. Ultimately, though, in the event of any conflict, this NPS shall take precedence.

4.305 The decision-maker should not grant consent for development on existing open space, sports and recreational buildings and land unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements, or the decision-maker determines that the benefits of the project (including need) outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities. The loss of playing fields should only be allowed where applicants can demonstrate that they will be replaced with facilities of equivalent or better quantity or quality in a suitable location.

4.306 Where networks of green infrastructure have been identified in development plans, they should normally be protected from development and, where possible, strengthened by or integrated within it.

4.307 The decision-maker should ensure that applicants do not site their schemes on the best and most versatile agricultural land without justification. It should give little weight to the loss of poorer-quality agricultural land (in grades 3b, 4 and 5), except in areas (such as uplands) where particular agricultural practices may themselves contribute to the quality and character of the environment or the local economy.

4.308 In considering the impact on maintaining coastal recreation sites and features, the decision-maker should expect applicants to have taken advantage of opportunities to maintain and enhance access to the coast. In doing so, the decision-maker should consider the implications for development of the creation of a continuous signed and managed route around the coast, as provided for in MCAA09 and facilitate preservation of such a route.

4.309 When located in the Green Belt, port infrastructure projects may comprise ‘inappropriate development’. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it, other than in the case of development on previously developed land, where development is not inappropriate.

The decision-maker will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the harm by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the decision-maker will attach substantial weight to the harm to the Green Belt when considering any application for such development.

4.310 In Wales, 'green wedges' may be designated locally.[70] Green wedges give the same protection in Wales as Green Belt in England. Green wedges do not convey the same level of permanence of a Green Belt and should be reviewed by the local authority as part of the development plan review process. As with Green Belt, there is a presumption against inappropriate development, and the decision-maker should assess whether there are very special circumstances to justify any proposed inappropriate development.

DfT

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[70] See section 4.7 of Planning Policy Wales (4e).

Glossary

The acronyms, abbreviations and terms listed below are either used in this policy statement, or may be found elsewhere in related links:

AoS	Appraisal of Sustainability
BNG	Biodiversity Net Gain
BS	British Standard
CO_2	Carbon dioxide
CPNI	Centre for the Protection of National Infrastructure, see also NPSA
DEFRA	Department for the Environment, Food and Rural Affairs
DESNZ	Department for Energy Security & Net Zero
DfT	Department for Transport
EA	Environment Agency
EfW	Energy from waste
EIA	Environmental Impact Assessment
EOR	Environmental Outcomes Reporting
EP	Environmental Permitting
EPA	Environmental Protection Act
ES	Environmental Statement
EU	European Union
FLOW	Floating Offshore Wind
FRA	Flood Risk Assessment
GHG	Greenhouse gases
Ha	Hectare: 1Ha ≈ 2.47 acres
HA64	Harbours Act 1964
HGV	Heavy goods vehicle
hi-cube	A 9ft 6in high container
HRA	Habitats Regulations Assessment
HRO, HEO	Harbour Revision/Empowerment Order
HSE	Health and Safety Executive
IEMA	Institute of Environmental Management & Assessment
IMO	International Maritime Organization
IROPI	Imperative Reasons of Overriding Public Interest
ISEP	The Institute of Sustainability & Environmental Professionals
JNCC	Joint Nature Conservation Committee
LPA	Local planning authority
LURA	Levelling-Up and Regeneration Act 2023
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act 2009
MCZ	Marine Conservation Zone
MHCLG	Ministry for Housing, Communities & Local Government
MMO	Marine Management Organisation
MNG	Marine Net Gain
MoD	Ministry of Defence
MPA	Marine Protected Area
MPS	Marine Policy Statement
NCSC	National Cyber Security Centre
NE	Natural England
NH	National Highways
NISTA	National Infrastructure and Service Transformation Authority
NIU	National Infrastructure Unit
NPS	National Policy Statement
NPSA	National Protective Security Authority (replaced CNSI)
NRW	Natural Resources Wales/Cyfoeth Naturiol Cymru
NSIP	Nationally Significant Infrastructure Project
PA08	Planning Act 2008
PIns/PINS	Planning Inspectorate
$PM_{2.5}$	Particulate matter up to 2.5 microns in diameter
PPG	Planning Policy Guidance

pSPA	Potential Special Protection Area
ro-ro	Roll-on/roll-off (freight ferry transport, sometimes encompassing trade vehicles and/or passengers and their vehicles)
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SECA	SO2 Emissions Control Area (at sea)
SO_2	Sulphur dioxide
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
TCPA	Town and Country Planning Act 1990 (as amended)
teu	Twenty-foot equivalent unit (standard measure of container volume; forty-foot containers (2 teu each) are increasingly prevalent)
Transhipment	Transfer of goods (usually containers) from one ship to another through a port
TSO	The Stationery Office
W10	Rail loading-gauge allowing the use of 9ft 6in containers
WG	Welsh Government
WHS	World Heritage Site

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