AtkinsRéalis

SEA Environmental Report - Appendices

Portsmouth Water

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PORTSMOUTH WATER DRAFT DROUGHT PLAN 2027

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APPENDICES

Appendix A. Scoping Consultation Responses

Table A-1 - Consultation comments and how these have been addressed in the SEA

Consultee	Consultation comment	How and where this was addressed?
Historic England	HE note that their comments should be read alongside their Advice Note 8 on Sustainability Appraisal and Strategic Environmental Assessment[1].	Noted.
	Noting your intention to prepare Habitat Regulations Assessment (HRA), we underscore the potential for integrated management of the natural and historic environment. The heritage implications of proposed ecological measures need to be taken into account, both in terms of direct physical impacts and in relation to visual amenity and setting.	Noted.
	Q1. Have there been any significant omissions of plans, programmes or environmental protection objectives relevant to the scoping of the SEA? HE welcome the review of relevant Plans, Policies and Legislation in Appendix A (focused on Table A-1). That said, HE highlight that from a heritage perspective there is more that could usefully be integrated at a local level, including: ▪ Historic Environment Records (HERs) ▪ Heritage, Culture and/or Tourism strategies ▪ Conservation Area Appraisals and Management Plans Also, it would be helpful to be explicit about the Hampshire Water Transfer and Water Recycling project, which also addresses drought: https://www.hampshirewtwrp.co.uk/	Reference to Portsmouth Historic Environment Records Policy, Local Authority Heritage or Culture Strategies and Conservation Area Appraisals, as well as Hampshire Water Transfer and Water Recycling Project added to Table A-1 of the SEA Environmental Report Appendices.
	Q2. Do you agree with the selection of key sustainability issues for the Drought Plan area? HE welcome the inclusion of cultural heritage as outlined. To avoid confusion, HE suggest aligning with the terminology in the NPPF where possible. Exemplifying how current wording might be revised, we highlight the following from section 4.2: ▪ Conserve and enhance ~~protect~~ the significance of designated and non-designated heritage ~~historic~~ assets (including the contribution to significance made by their settings ~~designated and undesignated~~) and those of cultural note, including undesignated archaeolog~~y~~ical remains and historic landscapes ▪ Improve access to, and understanding and appreciation of the historic environment~~historic assets, including buildings and landscapes of value where appropriate~~	Wording updated in Section 5.1 of the SEA Environmental Report

[1] historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/heag036-sustainability-appraisal-strategic-environmental-assessment/

	▪ HE assert that reference to “significance” is important, noting that not all features of an asset may contribute to its significance. While we welcome acknowledgement of the potential to improve access to assets, we suggest avoiding a narrow interpretation of such assets. We encourage the plan to explore not only opportunities to improve access to heritage, but also enhance appreciation of heritage. ▪ HE highlight that assessing the potential impact of development on the significance of heritage assets requires more than mapping the location of assets and identifying assets on or near to potential sites. Historic England Advice Note 3 sets out a sequential approach to assessing the impact on significance. Although primarily addressing Local Plans, the principles on page 5 also apply for this Plan. HE return to this point below when referring to heritage impact assessment.	
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Page 29 of the main report – the entry on cultural heritage omits reference to conservation areas (CAs). While CAs are included in the entry on landscapes on the prior page, they should also be referenced in this section on cultural heritage.	Conservation Areas have now been noted in the Cultural Heritage Section of the Key Issues, Implications and Opportunities table.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? While the summary on cultural heritage refers to non-designated heritage assets in the column on implications / opportunities in the Drought Plan, the text summarising the key issue omits reference to non-designated heritage assets (NDHAs). This should be rectified, informed by more detail on NDHAs having been collated in the appendix, as mentioned below.	Reference to NDHAs added to the Key Environmental Issues column of the Key Issues, Implications and Opportunities table.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? It is good to see reference to the fact that not all heritage features are known at present.	Noted.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Note that the scoping and evaluation of archaeological and landscape impacts needs to be an iterative process where existing sources (such as relevant HERs and research frameworks (https://researchframeworks.org/)) are consulted. This will demonstrate the work needed to prepare the baseline evidence and fill in gaps in understanding. This may include survey work (e.g. lidar, aerial photography, geophysical survey and fieldwalking) and targeted intrusive works (e.g. geoarchaeology and the preparation of a deposit model, evaluation excavations etc.). These techniques should	Noted.

	be used to model risk and build a robust approach to understanding potential impacts, which will help to ensure that greater heritage and project delivery risks are targeted first so they can inform minimisation and timely mitigation.	
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Page 143 of the appendix – we welcome the SEA acknowledging that additional development has the potential to harm the significance of Scheduled Monuments; however, the wording would benefit from amendment. It would be good to refer to "significance" and tweak the wording to setting. Also note typo "designated". We suggest the following for consideration: "Additional development in the South East Region may be inappropriately located or design~~at~~ed to pose a risk to the significance of scheduled monuments (including the contribution to significance made by~~and~~ their settings). Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result."	Updated in Table C.9 of the SEA Environmental Report Appendices.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Page 144 of the appendix – it is curious to lead with a line that the total number of listed buildings is unknown. We suggest this is deleted, beginning instead by acknowledging there are over 370,000 entries for listed buildings on the NHLE.	Table C.9 of the SEA Environmental Report Appendices updated in line with comment.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? As above, HE recommend minor editing to the text in bold that summarises a key point: "Additional development in the South East Region may be inappropriately located or designed to pose a risk to the significance of listed buildings and conservation areas (including the contribution to significance made by ~~and~~ their settings). Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result."	Table C.9 of the SEA Environmental Report Appendices updated in line with comment.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Page 146 of the appendix – HE recommend editing to bring the approach to Registered Parks and Gardens into line with the approach to other designated heritage assets i.e.: "Additional development in the South East Region may be inappropriately located or designed to pose a risk to the significance of registered parks and gardens (including the contribution to significance made by and their settings). Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result. ~~New development within the plan area may~~	Table C.9 of the SEA Environmental Report Appendices updated in line with comment.

~~result in pressure on areas of importance for their cultural heritage and aesthetic quality and there is a requirement for them to be preserved and enhanced~~."	
Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Note the map in C.6 of the appendix needs to be corrected in how it presents conservation areas.	Figure D.6 in Appendix D has been updated to include Conservation Areas accordingly.
Q4. Are there any key baseline data available that have not been identified that could be used to inform an assessment of the issues? HE recommend integrating the national dataset on Heritage at Risk. This may have been considered (noting map C.6 in the appendix refers to heritage at risk); however, the national heritage at risk dataset is not referenced in Table 5-1. Page 29 states that "Historic England recently reported that heritage assets at risk are decreasing". While we welcome the link being made to heritage at risk, this needs to be explained more clearly. I am unsure what is meant by "are decreasing" in this context: is it saying the number of assets on the national register in the plan area are decreasing, or does it relate to the condition of assets on the register? The appendix refers to heritage at risk in the context of historic battlefields and registered parks and gardens at a national level. But the baseline does not appear to identify the number of heritage assets of any type on the national register within the plan area, which would be more useful. Currently Table A-9 in the appendix refers only to designated heritage assets. We recommend inclusion of a subsection on non-designated heritage assets (NDHAs), informed by liaison with local heritage teams, the relevant HER and any local lists.	The Issues, Implications and Opportunities table has been updated to refer to the Heritage at Risk dataset and clarify the existing statement. Text has been included in the baseline review regarding Heritage at Risk within the Plan Area and NHDAs.
Q4. Are there any key baseline data available that have not been identified that could be used to inform an assessment of the issues? Clearly it would not be practicable to include an in-depth analysis of NHDAs in the plan area. However, it should be possible to outline the sources of information on NDHAs, draw relevant high-level detail from those sources and acknowledge that there is potential for non-designated heritage assets to be nationally important. We suggest that you also refer to Historic Landscape Characterisation data to support the intended approach (which we note already refers to historic landscapes). Our website includes related guidance: https://historicengland.org.uk/research/methods/characterisation/historic-landscape-characterisation/	Text has been included in the baseline review regarding NHDAs and Historic Landscape Characterisation.
Q4. Are there any key baseline data available that have not been identified that could be used to inform an assessment of the issues? Lastly, HE flag the Hampshire Water Transfer and Water Recycling project as a potential source of relevant data and information. Liaison with Southern Water is recommended: https://www.hampshirewtwrp.co.uk	Consideration of the Hampshire Water Transfer and Water Recycling project has been made under the Assessment of Policies and Baseline Review.

	Q5. Do the SEA objectives and decision-making questions provide a sound framework against which to assess the sustainability performance of the Drought Plan? We broadly welcome the implications / opportunities identified for cultural heritage. We recommend minor editing of the SEA objective to be precise about what is being referenced regarding "archaeology" in this context (noting that many assets as referenced will have archaeological interest). Suggested wording for consideration: "To conserve, protect and enhance heritage assets and the historic environment ~~and assets~~, including ~~undesignated~~ archaeolog~~y~~ical remains" Focusing on the decision-aid questions, we recommend minor editing as follows, to avoid repetition (draft bullets 1 and 3) and introduce explicit reference to NDHAs: "Will the drought plan: • Conserve or enhance~~Protect~~ designated heritage~~historic~~ assets, sites and features and their settings? • Conserve or enhance non-designated heritage assets and their settings? • Protect heritage assets at risk? • ~~Protect historic assets and their settings?~~ • Protect important archaeolog~~y~~ical remains (including unknown archaeolog~~y~~ical remains)? • Alter the hydrological conditions of water-dependent heritage assets, including organic remains?"	Wording of the SEA objective and decision aid questions has been updated in Table 7-1 'SEA Framework' of the main SEA Environmental report.
	Q6. Are there any major development proposals within the study area that, when considered alongside the development of a Drought Plan, have the potential for cumulative effects and therefore need to be considered as part of the SEA for the Drought Plan? We have no major development proposals to suggest in this context, other than to mention once again the Hampshire Water Transfer and Water Recycling project. That said, focusing specifically on heritage impacts, we highlight that more detailed assessment may be necessary going forward for particular sites / schemes. Historic England would expect to see the completion of a Heritage Impact Assessment as part of the evidence base for certain sites/proposals likely to have an impact on the significance of heritage assets (including development within the setting of the heritage assets). We would be happy to provide further advice in this regard if and where this may be necessary as part of the evidence base for transport proposals.	Consideration of the Hampshire Water Transfer and Water Recycling project has been made under the Assessment of Policies and Baseline Review. There is further assessment on potential heritage impacts in the SEA assessments.
	Conclusion	Noted and to be considered in the SEA process.

	The SEA process should give a thorough assessment of the potential impacts on the historic environment of the Plan as a whole as well as individual components of the Plan and set out any mitigation required. Clear consideration should be given to impacts on both designated and non-designated heritage assets. We stress the importance of considering the historic environment not only in relation to the SEA report but also in **the Drought Plan itself.** Harm to the historic environment should be avoided in the first instance. Paragraph 202 of the NPPF emphasises that heritage assets are an irreplaceable resource whilst paragraph 203 promotes a positive strategy for the conservation and enhancement of the historic environment. We strongly advise that the local authority conservation teams and archaeological advisors are closely involved throughout the preparation of the assessment of this evidence. They are best placed to advise on; local historic environment issues and priorities, including access to data held in the relevant Historic Environment Records (HERs); how the proposals can be tailored to minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.	
Chichester District Council	In relation to future major developments we would flag that the Chichester Local Plan 2021-39, which allocates development sites, is currently at an advanced stage of examination with adoption anticipated to be soon unless anything unexpected happens. We will then need to begin planning for significantly higher housing numbers in line with the government's new standard method for assessing housing need, in a way aligned with plans for devolution and local government reorganisation. We will continue to engage with Portsmouth Water as such plans progress.	Plan has been added under the Assessment of Policies regarding this document.
Wessex Rivers Trust	**Q1. Have there been any significant omissions of plans, programmes or environmental protection objectives relevant to the scoping of the SEA?** Consideration of Southern Water's Section 20 Water Resources agreement with the EA to deliver compensatory habitat actions on the River Meon (currently being delivered by Wessex Rivers Trust under the FReSH Water Programme banner). This includes a series of actions to improve passage for Atlantic salmon, in relation to abstraction pressures in the neighbouring Itchen SAC. Securing compensation on the Meon requires effective water resource planning to ensure measures are effective under a range of conditions. Further details about the agreement can be obtained from Natural England (Aldous Rees), whilst project specific actions can be obtained from Wessex Rivers Trust.	The SEA is supported by a HRA which includes consideration of compensatory habitats. With respect to the River Meon, it is noted that discussions and further investigations are ongoing at the time of writing. Subject to further consultation with NE and EA, the SEA and HRA are expected to be updated to reflect these issues prior to Final publication. This includes the Meon Interim

		Report which is expected at the end of January 2026.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA? Some local/non Defra data sets for Biodiversity are available, and should be considered when undertaking the SEA. Outlined in Q4 response below.	The availability of additional datasets are noted. It is considered that the datasets used in the SEA and supporting technical assessments are proportionate for strategic level assessment. It is considered most appropriate to explore additional and other local level datasets as project level assessments, where required, are undertaken.
	Q4. Are there any key baseline data available that have not been identified that could be used to inform an assessment of the issues? Consider utilising the widely available and more up to date (compared to EA data) Smart Rivers species level aquatic macroinvertebrate monitoring data available for rivers. Access to the data can be obtained via Wildfish – https://wildfish.org/project/smart-rivers/	The availability of this dataset is noted. It is considered that the datasets used in the SEA and supporting technical assessments are proportionate for strategic level assessment. It is considered most appropriate to explore additional and other local level datasets as project level assessments, where required, are undertaken.
	Q4. Are there any key baseline data available that have not been identified that could be used to inform an assessment of the issues? In addition to the Smart Rivers data, the Meon Valley Partnership recently carried out a catchment wide survey of aquatic macroinvertebrates in the River Meon. Simon Deacon (PW) will be able to share this with you.	The availability of this dataset is noted. It is considered that the datasets used in the SEA and supporting technical assessments are proportionate for strategic level assessment. It is considered most appropriate to explore additional and other

		local level datasets as project level assessments are undertaken.
Winchester City Council	**Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA** It is noted within the report that 15% of Portsmouth Water's supply comes from the River Itchen. Portsmouth Water should be liaising with Southern Water and Natural England in result of the Southern Water Drought Order which in relation to Habitats Regulations triggers Compensatory Habitats in the River Meon should a drought situation occur. Winchester City Council would be keen to see a copy of the HRA that supports the Drought Plan to ensure comments can be provided in relation to this issue.	The SEA is supported by a HRA which includes consideration of compensatory habitats. With respect to the River Meon, It is noted that discussions and further investigations are ongoing at the time of writing. Subject to further consultation with NE and EA, the SEA and HRA are expected to be updated to reflect these issues prior to Final publication. This includes the Meon Interim Report which is expected at the end of January 2026.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA Table 5.1 – I would suggest adding Compensatory SAC's here in line with Para 184 of the NPPF. The River Meon is a compensatory SAC for the River Itchen in relation to Southern Water's Drought Order.	Compensatory SACs have been considered in the HRA. Dataset has been requested from Winchester City Council. Should this be available mapping supporting the SEA will also be updated to include Compensatory SACs.
	Q3. Do you agree that the baseline data that have been, or will be collected, are relevant and of sufficient detail to support the SEA Table 5.1 (3) – Landscapes - be aware of Local Authority landscape designations such as ASLQ's as part of the Adopted Fareham Local Plan.	Noted.

Environment Agency	**Moderate Issues** **Incomplete Plan, Policy, and Programme (PPP) Review** **Issue:** The PPP review lacks specific references to key related plans such as Portsmouth Water WRMP24, neighbouring WRMP24s, regional plans, DWMPs, and SROs. **Implication:** Omitting these could lead to missing key issues in the SEA assessment framework. **Recommendation:** You should include these plans in the PPP review and adapt the SEA framework accordingly. Also, provide a summary of PPPs in the main report for clarity.	Additional specific references added to related plans under Appendix B.
	Moderate Issues **Assessment Methodology – Use of 'In the Round' Scoring** **Issue:** The methodology uses a summarised scoring approach ("in the round") which might obscure significant effects. **Implication:** Could lead to misinterpretation of significant positive or negative impacts. **Recommendation:** You should reconsider this scoring method and ensure commentary in the Environmental Report clearly identifies significant effects.	Comment is noted and care is taken
	Minor Issues **Lack of Clarity on Scoped-Out Topics** **Issue:** The report does not clearly state whether any topics or sub-topics have been scoped out. **Implication:** Reduces transparency and may confuse readers. **Recommendation:** Please clearly state which topics, if any, have been scoped out and justify these decisions.	Comment noted. No topics have been scoped out of the SEA.
Natural England	**Summary responses**	
	1. Proposed approach to the SEA Drought options will be implemented at a time when the natural environment will already be under stress from drought through reductions in water supply to habitats and increased temperatures. This could have a range impacts on ecological communities, favouring some species and habitats over others. The SEA will need to consider the impacts that the drought plan will have on the environment over and above the impacts of the drought itself. Where impacts of the drought are prolonged due to drought plan actions, the ability of ecology to recover could be significant. The SEA should consider effects of drought plan options on recovery times once the drought is over, as well as the short-term impacts during the operation of the drought plan. Portsmouth Water should ensure that the recovery of groundwater levels and the associated water supply to wetland and water dependent habitats is	Considered within the SEA assessments.

	considered, as well as the impact on river flows.It is also important to consider potential impact pathways and environmental receptors and not to be constrained by distance thresholds, particularly when considering groundwater connectivity and influence.	
	2. Relationships with other policies, plans and programmes The following plans, policies and programmes should be added (Section 4 and Annex A) and considered in the review of the environmental baseline and issues and options ▪ Government guidance “Complying with the biodiversity duty” 2023 ▪ Water Industry Strategic Environmental Requirements (WISER)	Added to Assessment of Policies.
	3. Environmental baseline Marine Conservation Zones (MCZs) should be added to the baseline information (with a map of relevant sites in Appendix C). Other relevant biodiversity and landscape designations appear to have been included in the baseline information and maps (although Natural England hasn’t checked them in full)	MCZ have been included in the Key Issues, Implications and Opportunities.
	4. Key environmental issues and opportunities The SEA Scoping Report (p22) biodiversity key environmental issue does not list likely key impacts from drought options, other than that regionally key pressures in respect of biodiversity and nature conservation are air pollution and climate change. More detail could be provided here in the scoping issues. Other key pressures include fragmentation and direct loss of land, disturbance and damage; also the drying of habitats could lead to habitat or community fragmentation. Drought actions could impact species’ range, movement, food availability, reproduction, risk of predation, competition and ultimately their survival. They could increase algal blooms, or the spread or establishment of invasive species or species that favour drought condition. Water quality can also be affected by reduced dissolved oxygen increased temperature. All of these factors should be considered in the SEA.	It is considered that the environmental issues are more fully explored in the SEA options assessment which are included as part of the SEA as Appendix E noting also that issues relevant to HRA and those captured in available EARs are also incorporated.
	4. Key environmental issues and opportunities The Scoping Report (p22) key opportunities should consider opportunities for delivery of the drought plan to improve resilience and secure multiple benefits and ecosystem services, and to improve public access and engagement with the natural environment. All opportunities to increase the resilience of the natural environment to drought and climate change, and to aid nature recovery following drought, should be sought.	It is considered that the environmental issues and opportunities are more fully explored in the SEA options assessment which are included as part of the SEA as Appendix E noting also that issues and opportunities relevant to HRA

		and those captured in available EARs are also incorporated.
	5. SEA framework and assessment criteria In setting questions against the SEA topics, the precautionary principle should be applied. This is especially important for Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. Potential impact pathways should be screened for first, before deciding whether they are likely or significant	Comment is noted. In line with SEA guidance, a precautionary approach to assessment is adopted. The SEA options assessment attributes effect characteristics including 'certainty' of effect.
	5. SEA framework and assessment criteria The SEA Scoping Report does not explain if or how mitigation measures (to reduce or eliminate potential impacts) will be considered in the SEA. It needs to be clear whether these will be an integral part of the assessment, or considered separately once the initial assessment of effects has been undertaken. It also needs to be clear whether these are accounted for in the Red-Amber-Green ratings.	The methodology section of the main SEA Environmental Report provides an explanation on pre and post mitigation scores provided within the individual assessments. Refer to chapter 12 of the main SEA Environmental Report for detail on mitigation measures.
	5. SEA framework and assessment criteria It is also unclear how the importance of an impacted designated site or species in the decision for what a minor/moderate/major effect would be. For instance, where there is any impact on a SAC/SPA/Ramsar feature this must be taken very seriously and is of greater significance than a similar impact on a local wildlife site. It is of course important to consider both and to take steps to mitigate the risks, but the consequence on a SAC/SPA/Ramsar site is more significant and needs to be reflected in the assessment.	Results of the HRA will be used to inform the biodiversity topic. The SEA scoring rationale has been provided in Chapter 9 of the SEA Environmental Report.
	5. SEA framework and assessment criteria In addition, clarity is needed on how timescales and recovery times will be reflected in the RAG ratings. The longer the impact and/or recovery time, the more significant the impact risk.	Comment is noted. In line with SEA guidance, the SEA options assessment attributes effect characteristics including 'certainty' of effect as well as temporal and permanence characteristics.

	6. In combination assessment The SEA Report should assess the in-combination and cumulative effects of the other plans and projects. Natural England advises that this assessment should consider other water companies' drought plan and options where they could affect the same environmental receptor.	This has been considered in Chapter 11 of the SEA Environmental Report and within the HRA.
	7. Looking ahead Justification for the RAG ratings need to be presented in the final SEA. This should include a clear summary explanation of what impact pathways and receptors that have been identified, and any mitigation measures that are required (including any constraints about the timing of options). Assessment of risks and opportunities on designated sites should relate to the interest features and reasons for designation of those sites, taking account of potential impact pathways. Information about any monitoring needed before, during and after drought (including any survey work needed in advance of drought, to gather baseline data and/or improve the understanding of risks/impacts) should be presented in the SEA. Further detail on these matters can be provided in EARs, but a summary or all risks, mitigation and monitoring requirements should be presented in the SEA with reference to EARs if necessary.	Comment is noted. Option assessment tables have been provided in full as Appendix E. Monitoring requirements are set out in the SEA Main Report and, where available, summarise requirements set out in Drought Permit EARs.
	Detailed responses	
	SEA Scoping Report Page 12 - Habitat Regulations Assessment An HRA is also required for SPA supporting habitat also known as functionally linked land. For the Solent & Southampton Water SPA functionally linked land has been identified and classified through the Solent Wader and Brent Goose Strategy (SWBGS).	To be considered in the HRA.
	SEA Scoping Report Page 15 - Environmental Themes: Biodiversity, Fauna and Flora Rather than "important" suggest "Protect and enhance protected species, priority species, and priority and irreplaceable habitats". Rather than important habitat suggest "Increase and enhance priority and irreplaceable habitats"	Text updated in section 5.1 of the main SEA Environmental Report.
	SEA Scoping Report Page 15 - Environmental Themes: Water Resources Also protect river flows and Help to meet the conservation objectives of water dependent protected sites	Point added to section 5.1 of the main SEA Environmental Report.

SEA Scoping Report page 16 - Environmental Themes: Landscapes and Townscapes Also landscape quality	Point added to section 5.1 of the main SEA Environmental Report.
SEA Scoping Report Page 17 – Data Collection Methodology Information on local wildlife sites and species records should also be obtained from the relevant local environmental records centres (Hampshire Biodiversity Information Centre and Sussex Biodiversity Records Centre)	The availability of these datasets are noted. It is considered that the datasets used in the SEA and supporting technical assessments are proportionate for strategic level assessment. It is considered most appropriate to explore additional and other local level datasets as project level assessments are undertaken.
SEA Scoping Report Page 18 - Table 5-1 Datasets used in Environmental Baseline: 1. Biodiversity Records of protected and priority species should also be used Solent and Wader and Brent Goose Strategy sites should also be included	The availability of these datasets are noted. It is considered that the datasets used in the SEA and supporting technical assessments are proportionate for strategic level assessment. It is considered most appropriate to explore additional and other local level datasets as project level assessments are undertaken.
SEA Scoping Report Page 18 - Table 5-1 3. Landscape Also South Downs National Park	National Parks have been noted under the Landscape section of the Datasets used in Environmental Baseline table.
SEA Scoping Report Page 18 - Table 5-1 7. Water Quality and Resources Also include Common Standards Monitoring Guidance	Comment noted. The Guidance has been included in the review of relevant plans and policies.

	SEA Scoping Report Page 22 - Table 6-1. Biodiversity Key Environmental Issue column ▪ Please also include MCZs. [Note NE hasn't checked that all sites are included/counted.] ▪ Please also include SPA functionally linked land (Solent Wader and Brent Goose Strategy Sites) ▪ Please also include Local Wildlife Sites within the text. ▪ Please also include protected and priority species here.	MCZ data has been included. Note SPA functionally linked land has been considered in the HRA. With respect to LWS and protected and priority species data, it is considered that the datasets used in the SEA and supporting technical assessments are proportionate for strategic level assessment. It is considered most appropriate to explore additional and other local level datasets as project level assessments are undertaken.
	SEA Scoping Report Page 22 - Table 6-1. Biodiversity Key Environmental Issue column Key pressures also include loss of land through disturbance and damage. Also drying of habitats, and habitat or community fragmentation can impact species survival through range, movement, food availability, reproduction, risk of predation, competition. Could increase the risk of algal blooms, or the spread or establishment of invasive species, or species that favour drought conditions. Water quality/chemistry can also be affected by pollutants and by reduced dissolved oxygen or increased temperature.	Comment noted and potential impacts explored further in option assessment tables, attached to this Appendices document as Appendix E.
	SEA Scoping Report Page 22 - Table 6-1 Biodiversity: Implications/Opportunities Opportunities for increased resilience of species and habitats to climate change and drought can also aid drought recovery. Potential opportunities to contribute to the Local Nature Recovery Strategy through appropriate habitat creation and enhancement. The LNRS can also inform opportunities for integration and enhancement of green infrastructure.	Key Issues, Implications and Opportunities updated to consider these opportunities.
	SEA Scoping Report Page 27 - Table 6-1 Adaptation to Climate Change: SEA Objective Suggest adding: “To increase resilience of water environment and its ecology to climate change, flood risk and drought” or else add this to biodiversity issue.	Decision aid question has been added.

	SEA Scoping Report Page 29-30 - Table 6-1 Population and Human Health: Implication/Opportunities Should also include opportunities to improve public access and engagement with natural environment	Text has been updated to consider this opportunity.
	SEA Scoping Report Page 33 - Table 7-1 Biodiversity topic Ensure HRA compliance with regards to European sites Should refer to Habitats sites. Need to apply the precautionary principle (especially important for SACs, SPAs and Ramsar sites and SPA functionally linked land). Better to say "is there potential to affect…? Need to screen for potential impact pathways first, before deciding whether there is likely or significant.	In line with SEA guidance, the precautionary principle has been applied. This is supported by attribution of certainty and other characteristics of effect in option assessment tables. Comments addressed and decision aid questions in Table 7-1 of the main SEA Environmental Report updated.
	SEA Scoping Report - Table 7-1 Water topic Affect chalk rivers? Chalk river should already have been considered under priority habitats (biodiversity topic) and in the questions about surface water quality and quantity and WFD objectives in this water topic. So there is a risk of double counting impacts.	Decision aid questions in Table 7-1 of the main SEA Environmental Report updated.
	SEA Scoping Report - 7.3 Applying the SEA Framework. Penultimate para "potential for effects outside the Portsmouth Water area…" It is important to consider potential impact pathways and receptors, and not be constrained by distance thresholds	Comment noted. While GIS and distance thresholds have been used, the assessment is informed by hydrological connections and other impact pathways principally through supporting EARs and HRA.
	Annex A Plans, Policies and Legislation Page 17 - Table A-1 National Guidance for Local Authorities on Implementing the Biodiversity Duty (2007) Government guidance on "Complying with the biodiversity duty" was updated in 2023 **Complying with the biodiversity duty - GOV.UK**	The National Guidance for Local Authorities on Implementing the Biodiversity Duty (2007) has been removed and Complying with the biodiversity duty has been added the Assessment of Policies.

	Annex A Page 14 - Table A-1 National Add: Water Industry Strategic Environmental Requirements (WISER)	Added to Assessment of Policies.
	Annex A Page 17 - Table A-1- National Planning Policy Framework (2021) NPPF was updated in 2024	This has been updated.
	Annex A Assessment of Policies Page 67 - Table A-1 Regional/Local Add: ▪ Basingstoke & Deane Local Plan and the draft Water Cycle Study ▪ Hampshire Local Nature Recovery Strategy ▪ Chichester Harbour National Landscape Management Plan. Note due to recent rebranding the document may still be titled Chichester Harbour AONB Management Plan so it's ok to reference the document in this way ▪ Solent Wader & Brent Goose Strategy	The Assessment of Policies has been updated to include these.
	Appendix B Baseline and Contextual Information page 86 - Table B-1 Biodiversity SPAs and SACs - Explanatory texts Protection of SPAs and SACs has been transposed into UK law under the Conservation of Species and Habitats Regulations 2017 (as amended)	The Baseline Review has been updated to reflect.

Appendix B. Assessment of Policies

Table B-1 - Plans, Policies and Legislation

Plan, Policy or Legislation	Key Objective / Targets / Guidance	Implication for the SEA
INTERNATIONAL		
Glasgow Climate Pact (2021)	The agreements reached at the COP26 through the Glasgow Climate Pact include reducing coal emissions by 40% as well as a pledge to phase out fossil fuel subsidies. While no firm dates were set for these goals, the pact also included the goals of ending deforestation and cutting 30% of methane emissions by 2030.	Climatic Factors
Kumming-Montreal Global Biodiversity Framework 2023	The Kunming-Montreal Global Biodiversity Framework, building on the Strategic Plan for Biodiversity 2011–2020, its achievements, gaps, and lessons learned, and the experience and achievements of other relevant multilateral environmental agreements, sets out an ambitious plan to implement broad-based action to bring about a transformation in our societies' relationship with biodiversity by 2030, in line with the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, and ensure that, by 2050, the shared vision of living in harmony with nature is fulfilled. The vision of the Framework is a world of living in harmony with nature where "by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people." The mission of the Framework for the period up to 2030, towards the 2050 vision is: To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by conserving and sustainably using biodiversity and by ensuring the fair and equitable sharing of benefits from the use of genetic resources, while providing the necessary means of implementation. The Framework has four long-term goals for 2050 related to the 2050 Vision for biodiversity. GOAL A: The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050; human induced extinction of known threatened species is halted, and, by 2050, the extinction rate and risk of all species are reduced tenfold and the abundance of native wild species is increased to healthy and resilient levels; and the genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential. GOAL B: Biodiversity is sustainably used and managed and nature's contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050.	Biodiversity

	GOAL C: The monetary and non-monetary benefits from the utilization of genetic resources and digital sequence information on genetic resources, and of traditional knowledge associated with genetic resources, as applicable, are shared fairly and equitably, including, as appropriate with indigenous peoples and local communities, and substantially increased by 2050, while ensuring traditional knowledge associated with genetic resources is appropriately protected, thereby contributing to the conservation and sustainable use of biodiversity, in accordance with internationally agreed access and benefit-sharing instruments. GOAL D: Adequate means of implementation, including financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology to fully implement the Kunming-Montreal Global Biodiversity Framework are secured and equitably accessible to all Parties, especially developing country Parties, in particular the least developed countries and small island developing States, as well as countries with economies in transition, progressively closing the biodiversity finance gap of $700 billion per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for biodiversity. The Framework has 23 action-oriented global targets for urgent action over the decade to 2030. The actions set out in each target need to be initiated immediately and completed by 2030. Together, the results will enable achievement towards the outcome-oriented goals for 2050. Actions to reach these targets should be implemented consistently and in harmony with the Convention on Biological Diversity and its Protocols, and other relevant international obligations, taking into account national circumstances, priorities and socioeconomic conditions.	
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) 1999	This is an intergovernmental treaty dedicated to the conservation of migratory waterbirds and their habitats across Africa, Europe, the Middle East, Central Asia, Greenland and the Canadian Archipelago. Developed under the framework of the Bonn Convention and administered by the United Nations Environment Programme (UNEP), AEWA brings together countries and the wider international conservation community in an effort to establish coordinated conservation and management of migratory waterbirds throughout their entire migratory range.	Biodiversity
Convention on the Protection of Underwater Cultural Heritage 2001	The UNESCO Convention on the Protection of the Underwater Cultural Heritage is intended to enable States to better protect their submerged cultural heritage. The Convention; • sets out basic principles for the protection of underwater cultural heritage; • provides a detailed State cooperation system; and • provides widely recognized practical rules for the treatment and research of underwater cultural heritage.	Cultural Heritage

	The UK has not ratified the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, but the Annex to the 2001 Convention – Rules Concerning Activities Directed at the Underwater Cultural Heritage – provides an accepted model of 'best practice' for underwater archaeology.	
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	The principal aims of the Convention are to ensure conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix 3. To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.	Biodiversity
Bonn Convention on the Conservation of Migratory Species of Wild Animals (1983)	The Convention is an international treaty of the United Nations which provides a global platform for the conservation and sustainable use of migratory animals and their habitats. This treaty brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.	Biodiversity
Convention on Biological Diversity 2010	Sets out a conservation plan to protect global biodiversity, and an international treaty to establish a fair and equitable system to enable nations to co-operate in accessing and sharing the benefits of genetic resources. The new global vision is "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential to all people".	Biodiversity
Ramsar Convention 1971	The Convention covers all aspects of wetland conservation and wise use. The Convention has three main 'pillars' of activity: the designation of wetlands of international importance as Ramsar sites; the promotion of the wise-use of all wetlands in the territory of each country; and international co-operation with other countries to further the wise-use of wetlands and their resources.	Biodiversity
UN Framework Convention on Climate Change 1992, Kyoto Protocol 1997, Paris Agreement 2015 etc.	A series of international agreements setting targets and legally binding agreements for industrialised countries to cut their greenhouse gas emissions. The Paris Agreement is the latest international agreement and its overarching goal is to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels. Note is also made of the UK Nationally Determined Contribution that commits to reducing greenhouse gases by 68% by 2030 compared to 1990 levels.	Climate Factors
Commitments arising from the World Summit on Sustainable Development, Johannesburg (2002)	The 2002 World Summit on Sustainable Development in Johannesburg adopted a Political Declaration and Implementation Plan which included provisions covering a set of activities and measures to be taken in order to achieve development that takes into account respect for the environment. In the area of water, the Plan of Implementation encouraged partnerships between the public and private sectors based on regulatory frameworks established by governments.	Cross-cutting

Charter for the Protection and Management of Archaeological Heritage (1990)	Archaeological heritage protection requires a wider basis of professional and scientific knowledge and skills. This charter lays down principles relating to the different aspects of archaeological heritage management. These include the responsibilities of public authorities and legislators, principles relating to the professional performance of the processes of inventorisation, survey, excavation, documentation, research, maintenance, conservation, preservation, reconstruction, information, presentation, public access and use of the heritage, and the qualification of professionals involved in the protection of the archaeological heritage. The charter has been inspired by the success of the Venice Charter as guidelines and source of ideas for policies and practice of governments as well as scholars and professionals.	Cultural Heritage
World Heritage Convention 1972	This convention noted that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction and considered that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world.	Cultural Heritage
Convention on Access to Information, Public Participation in Decision making and Access to Justice in Environmental Matters (Aarhus Convention) (1998)	The Aarhus Convention is a multilateral environmental agreement through which the opportunities for citizens to access environmental information are increased and transparent and reliable regulation procedure is secured. It encourages access to information, public participation and access to justice.	Cross-cutting
EUROPEAN		
Clean Air Programme for Europe 2013	This programme contains measures to ensure that existing targets are met in the short term, and new air quality objectives for the period up to 2030. The package also includes support measures to help cut air pollution, with a focus on improving air quality in cities, supporting research and innovation, and promoting international cooperation. By 2030, and compared to business as usual, the clean air policy package is estimated to: ▪ avoid 58 000 premature deaths across Europe, ▪ save 123 000 km2 of ecosystems from nitrogen pollution (more than half the area of Romania), ▪ save 56 000 km2 protected Natura 2000 areas (more than the entire area of Croatia) from nitrogen pollution, ▪ save 19 000 km2 forest ecosystems from acidification.	Air

Birds Directive (2009/147/EC)	Europe is home to more than 500 wild bird species. But at least 32% of the EU's bird species are currently not in a good conservation status. The Birds Directive aims to protect all of the 500 wild bird species naturally occurring in the European Union. Habitat loss and degradation are the most serious threats to the conservation of wild birds. The Directive therefore places great emphasis on the protection of habitats for endangered and migratory species. It establishes a network of Special Protection Areas (SPAs) including all the most suitable territories for these species. Since 1994, all SPAs are included in the Natura 2000 ecological network, set up under the Habitats Directive 92/43/EEC.	Biodiversity
Energy Efficiency Directive (2012/27/EU)	The 2012 Energy Efficiency Directive establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain from its production to its final consumption. On 30 November 2016 the Commission proposed an update to the Energy Efficiency Directive including a new 30% energy efficiency target for 2030, and measures to update the Directive to make sure the new target is met.	Climatic Factors
EU Strategy on Adaptation to Climate Change (2021)	The EU strategy on adaptation to climate change aims at making Europe more climate-resilient. Taking a coherent approach by complementing the activities of Member States, it supports action by promoting greater coordination and information-sharing and by ensuring that adaptation considerations are addressed in all relevant EU policies.	Climatic Factors
WHO Guidelines for Community Noise 1999	The World Health Organisation (WHO) publication entitled ‘Guidelines for Community Noise’ (1999), provides guidance with regard to recommended internal and external noise levels for various building uses, outlining the potential health impacts associated with noise. Specifically, the document recommends internal and external noise levels that would provide an acoustic environment that is conducive to uninterrupted speech and sleep.	Population and Human Health
WHO Night Noise Guidelines for Europe 2009	The World Health Organisation (WHO) Night Noise Guidelines for Europe (NNG) 2009 are health-based guidelines and are to be considered an extension and update to the WHO Guidelines for Community Noise 1999.	Population and Human Health
Blueprint to Safeguard Europe’s Water Resources (2021)	WHO NNG provides evidence based policy advice to member states in the development of future legislation and policy action in the area of control and surveillance of night noise exposure.	Water
The Europe 2020 Strategy – The Resource Efficiency Roadmap (COM(2011)571)	It presents the policy response to the challenges presented in the State of Water Report and its long-term aim is to ensure sufficient availability of good quality water for sustainable and equitable water use. It is closely linked to the Europe 2020 Strategy and the Resource Efficiency Roadmap.	Material Assets

Waste Framework Directive (75/442/EEC)	The original aim of the Waste Framework Directive was to lay the basis to turn the EU into a recycling society and contained 5 key steps in the waste hierarchy concept: ▪ Prevention ▪ Reuse ▪ Recycle ▪ Recovery ▪ Disposal The revised Waste Directive introduces new provisions aimed at boosting waste prevention and recycling as part of the waste hierarchy and clarifies key concepts such as the definition of waste, recovery and disposal.	Material Assets
European Landscape Convention 2000 – the 'Florence Convention'	The European Landscape Convention is part of the Council of Europe's work on natural and cultural heritage, spatial planning and the environment. The convention states that: ▪ the landscape contributes to the formation of local cultures and that it is a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity ▪ that developments in agriculture, forestry, industrial and mineral production techniques and in regional planning, town planning, transport, infrastructure, tourism and recreation and, at a more general level, changes in the world economy are in many cases accelerating the transformation of landscapes. The aims of this Convention are to promote landscape protection, management and planning, and to organise European co-operation on landscape issues.	Landscape
Environmental noise guidelines for the European Region	The WHO Regional Office for Europe has developed these guidelines, based on the growing understanding of the negative health impacts of exposure to environmental noise. The main purpose of these guidelines is to provide recommendations for protecting human health from exposure to environmental noise originating from various sources: transportation (road traffic, railway and aircraft) noise, wind turbine noise and leisure noise. They provide robust public health advice underpinned by evidence, which is essential to drive policy action that will protect communities from the adverse effects of noise. The guidelines are published by the WHO Regional Office for Europe.	Noise
WHO Closing the Gap: Social Determinants of Health 2008	The report prepared by the Commission on Social Determinants of Health aims to: ▪ Improve daily living conditions. ▪ Tackle inequitable distribution of power, money and resources. ▪ Measure and understand the problem and assess the impact on action.	Population and Human Health

	▪ Recommendations are made to tackle inequalities	
European Soil Charter 2003	The Council of Europe outlines the importance, recommendations made and proper methods and instruments that should be used in practice to ensure sustainable management of soil Foreseeable degradation and damage aim to be countered with preventive measures at the national and European levels, outlined in the following objectives in the interests of present and future generations: ▪ sustainable use of all kinds of soil, according to local circumstances, so as to preserve the diversity of the functions and components of the soil in a given site and maintain a balance between the processes of soil formation and soil degradation; ▪ sustainable preservation of biodiversity in the soil; ▪ lasting fertility of the soil, so as to ensure a healthy food source; this is achieved through the use of farming methods appropriate to local conditions and special measures to protect the activity of the living organisms found in soil; ▪ integrated management of soil through the co-ordination of economic, environmental and spatial planning policies and the various national and local institutions and administrative bodies active in the field of soil.	Soils, Geology and Land-Use
Thematic Strategy for Soil Protection (2006)	The EU thematic strategy for soil protection puts forward measures to protect soil and to preserve its capacity to perform its functions in environmental, economic, social and cultural terms. The strategy includes setting up a legislative framework for the protection and sustainable use of soil, integrating soil protection into national and EU policies, improving knowledge in this area and increasing public awareness. The proposal for a Directive is a key component of the strategy, which enables Member States to adopt measures tailored to their local needs. It provides for measures to identify problems, prevent soil degradation and remediate polluted or degraded soil.	Soils, Geology and Land-Use
The Nitrates Directive 1991 (91/676/EEC)	The Directive was created concerning the protection of water against pollution caused by nitrates from agricultural sources. It details criteria for identifying waters, codes of good agricultural practice, measures to be included in action programmes, reference methods of measurement and information to be contained in reports. The Nitrates Directive has the objective of: — reducing water pollution caused or induced by nitrates from agricultural sources; and — preventing further such pollution.	Water
Urban Wastewater Treatment Directive (91/271/EEC)	The Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors.	Water

	The objective of the Directive is to protect the environment from adverse effects of the aforementioned waste water discharges.	
Urban Wastewater Treatment Directive (EU) 2024/3019	This Directive follows the legal framework and objectives from Directive 91/271/EEC and Directive 2000/60/EC including protecting the environment from being adversely affected by insufficiently treated urban wastewater discharges. The Directive should continue to pursue the same objectives while also contributing to the protection of public health in accordance with the One Health approach, which is aimed at sustainably balancing and optimising the health of people, animals and ecosystems.	Water
Drinking Water Directive (1998/83/EC)	The Directive concerns the quality of water intended for human consumption. The objective of this Directive shall be to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.	Water
Directive on Bathing Water (76/160/EEC); and Directive 2006/7/EC repealing Directive 76/160/EEC (from 2014)	Directive (76/160/EEC) concerns the quality of bathing water, with the exception of water intended for therapeutic purposes and water used in swimming pools. Directive (76/160/EEC) lays down provisions for: (a) the monitoring and classification of bathing water quality; (b) the management of bathing water quality; and (c) the provision of information to the public on bathing water quality The purpose of this Directive is to preserve, protect and improve the quality of the environment and to protect human health.	Water
Marine Strategy Framework Directive (2008/56/EEC)	This Directive establishes a framework within which Member States shall take the necessary measures to achieve or maintain good environmental status in the marine environment by the year 2020 at the latest. For that purpose, marine strategies shall be developed and implemented in order to: (a) protect and preserve the marine environment, prevent its deterioration or, where practicable, restore marine ecosystems in areas where they have been adversely affected; (b) prevent and reduce inputs in the marine environment, with a view to phasing out pollution as defined in Article 3(8), so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea.	Water

Directive on the Assessment and Management of Flood Risks (2007/60/EC)	The purpose of this Directive is to establish a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community. It outlines a number of articles concerning: ▪ preliminary flood risk assessment; ▪ flood hazards and flood risk maps; and ▪ flood risk management plans.	Water
Blueprint to Safeguard Europe's Water Resources (2012)	The Blueprint aims to tackle the obstacles which hamper action to safeguard Europe's water resources and is based on extensive evaluation of the existing policy. It emphasises key themes which include improving land use, addressing water pollution, increasing water efficiency and resilience, and improving governance by those involved in managing water resources.	
National		
Environment Act 2021	The Environment Act sets out that the Secretary of State may by regulations set long-term targets in respect of any matter which relates to (a)the natural environment, or (b)people's enjoyment of the natural environment. A long-term target in respect of at least one matter within each of the four priority areas: (a)air quality; (b)water; (c)biodiversity; (d)resource efficiency and waste reduction. The Act specifically requires the Secretary of State to set by future regulation statutory targets for the recovery of the natural world in two priority areas: air quality (PM2.5 air quality target) and biodiversity (species abundance target) and includes an important new target to reverse the decline in species abundance by the end of 2030. The Secretary of State must also prepare an environmental improvement plan for significantly improving the natural environment for a period no shorter than 15 years. The Act will also deliver: ▪ A cycle of environmental monitoring and reporting; ▪ Environmental Principles embedded in domestic policy making; and ▪ Office for Environmental Protection to uphold environmental law. ▪ Key relevant provisions: ▪ Biodiversity Net Gain The Act places a statutory requirement for developments to deliver biodiversity improvements and will require all planning permissions in England (subject to exemptions) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity gain plan.	Cross-cutting

The planning authority can only approve the biodiversity gain plan if the biodiversity value attributable to a development exceeds the pre-development biodiversity value of the onsite habitat by 10% (known as the 'biodiversity gain objective').

The biodiversity plan must set out the steps taken to achieve the 'biodiversity gain objective', which could be through minimising the adverse effects of the development on habitats, the identification of the pre and post development onsite biodiversity value, details of registered offsite biodiversity value allocated to the development and biodiversity credits purchased, and any other information that may be required by regulations.

There will be flexible mechanisms available to increase the biodiversity value to demonstrate a 10% biodiversity net gain. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. For such developments, arrangements to minimise their adverse effects and improvements, must be delivered onsite.

Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

Onsite enhancements must be secured by planning condition, s106 obligation or a conservation covenant, which is a written agreement that is registrable as a local land charge, between a landowner and a 'responsible body' that binds a landowner and its successors to do/not do something on the land for a conservation purpose.

Offsite enhancements must be secured under either a s106 agreement or a conservation covenant and be registered in the new, publicly available, biodiversity gain site register.

- Waste and resource efficiency

The Act gives wide ranging powers to make regulations about who producer obligations should apply to and which products or materials should be covered. These powers are intended to prevent waste/reduce the amount of a product that becomes waste and increase re-use, redistribution, recovery and recycling. Producers can get ahead of these regulations, and minimise any eventual requirements to pay disposal costs, by designing products with these objectives in mind.

- Water resources management plans, drought plans and joint proposals

The Act requires more collaboration (joint proposals) between water companies on managing supply and demand, resilience and environmental improvements, through their statutory water management plans.

- Water quality

	▪ The Secretary of State may by regulations amend or modify any legislation to which this section applies for the purpose of: (a)making provision about the substances to be taken into account in assessing the chemical status of surface water or groundwater; (b)specifying standards in relation to those substances or in relation to the chemical status of surface water or groundwater.	
A Green Future: Our 25 Year Plan to Improve the Environment, UK Government (2018)	This 25 Year Environment Plan sets out government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. Ten key goals are specified: ▪ Clean air ▪ Clean and plentiful water ▪ Thriving plants and wildlife ▪ A reduced risk of harm from environmental hazards such as flooding and drought ▪ Using resources from nature more sustainably and efficiently ▪ Enhanced beauty, heritage and engagement with the natural environment ▪ Mitigating and adapting to climate change ▪ Minimising waste ▪ Managing exposure to chemicals ▪ Enhancing biosecurity ▪ To deliver on these goals, six areas of action are identified: ▪ Using and managing land sustainably ▪ Recovering nature and enhancing the beauty of landscapes ▪ Connecting people with the environment to improve health and wellbeing ▪ Increasing resource efficiency, and reducing pollution and waste ▪ Securing clean, productive and biologically diverse seas and oceans ▪ Protecting and improving global environment	Cross-cutting
National Planning Policy Framework (NPPF) (2021)	The National Planning Policy Framework which sets out the government's planning policies for England was revised in July 2021. The most relevant changes in the context of the DP are as follows:	Cross-cutting

	Chapter 2: Achieving Sustainable Development now acknowledges that members of the UN have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. Minor edits have been made to phrasing, setting out clearly that the environmental objective is now to protect and enhance, and to improve biodiversity, where before the requirement was simply to contribute to these matters. The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives): a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure; b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and c) an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy. These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.	
UK Biodiversity Plan (1994)	This document represents the first United Kingdom biodiversity action plan. It contains three sections: ▪ Section 1 – describes the UKs biological resources and their global importance as well as the range of biodiversity within the UK from a historical and geological importance	Biodiversity

	▪ Section 2- describes the UK's strategy and programmes and examines threats, problems and opportunities of biodiversity. ▪ Section 3- draws the components of the action plan together and provides a forward work programme.	
National Forest Inventory	This programme monitors woodland and trees within Great Britain. It includes the most in depth survey carried out on Britain's woodland and trees to date. The NFI provides an extensive and unique record of key information about our forests and woodlands. Woodland surveys and compiled forest inventories have been carried out at 10-15 year intervals since 1924.	Biodiversity
Ancient Woodland Inventory	The AWI is a provisional guide and map based tool to the location of Ancient and long established Woodland. Ancient woodland is defined as land that is currently wooded and has been continually wooded in England at least since 1600. This type of woodland has important biodiversity and cultural values by its virtue of its antiquity.	Biodiversity
National Parks and Access to Countryside Act 2006	The Act established powers to declare National Nature Reserves (NNRs); to notify sites of Sites of Special Scientific Interest (SSSIs) and for local authorities to establish Local Nature Reserves (LNRs).	Biodiversity
Heritage Protection for the 21st Century 2007	The paper sets out a vision of a unified and simpler heritage protection system, which will have more opportunities for public involvement and community engagement. The proposed system will be more open, accountable and transparent. It will offer all those with an interest in the historic environment a clearer record of what is protected and why; it will enable people who own or manage historic buildings and sites to have a better understanding of what features are important; it will streamline the consent procedures and create a more consultative and collaborative protection system.	Cultural Heritage
Climate Change Act 2008 and its 2050 Target Amendment Order, 2019	The Act aims to improve carbon management, helping the transition towards a low-carbon economy in the UK and to demonstrate UK leadership internationally. Key provisions of the Act include: ▪ a legally binding target of at least an 80% cut in greenhouse gas emissions by 2050 and a reduction in emissions of at least 34% by 2020 (both against 1990 baseline). Note the 2050 target has now been amended to Net Zero ▪ a carbon budgeting system that caps emissions over five-year periods; ▪ creation of the Committee on Climate Change; ▪ further measures to reduce emissions, including measures on biofuels; ▪ a requirement for the Government to report at least every five years on the risks to the UK of climate change, and to publish a programme setting out how these will be addressed. The Act also introduces	Climatic Factors

	powers for Government to require public bodies and statutory undertakers to carry out their own risk assessment and make plans to address those risks	
UK Net Zero Strategy 2021	The UK's new Net Zero Strategy sets out policies and proposals for decarbonising all sectors of the UK economy to meet our net zero target by 2050. It sets out, for the first time, how the UK Government plans to deliver its emissions targets of Net Zero in 2050 and a 78% reduction from 1990 to 2035 (-63% relative to 2019). It puts forward an achievable and affordable vision that will bring net benefits to the UK.	Climatic Factors
Planning Practice Guidance – Climate Change 2015	Advises how planning can identify suitable mitigation and adaptation measures in plan-making and the planning application process to address the potential impacts of climate	Climatic Factors
Clean Growth Strategy 2017	The Clean Growth Strategy deals specifically with the challenge of trying to grow the UKs economy whilst reducing its emissions. This issue is dealt with across multiple strategies, and several sectors have a large role to play. This strategy details the approach of each sector and sets out key policies for each The guiding principles of the Clean Growth Strategy are to, through nurturing low carbon technologies, processes, and systems: ▪ meeting the UK's domestic commitments at the lowest possible net cost to UK taxpayers, consumers, and businesses; and ▪ maximising the social and economic benefits for the UK from this transition. ▪ The key policies to achieve this are sorted into the following categories: ▪ accelerating clean growth; ▪ improving business and industry efficiency (25% of emissions); ▪ improving our homes (13% of emissions); ▪ accelerating the shift to low carbon transport (24% of emissions); ▪ delivering clean, smart, flexible power (21% of emissions); ▪ enhancing the benefits and value of our natural resources (15% of emissions); ▪ leading in the public sector (2% of emissions); and ▪ government leadership in driving clean growth.	Climatic Factors
National Parks and Access to the Countryside Act 1949	This was an act that made provision for National Parks and the establishment of a National Parks Commission. It was also to confer on the Nature Conservancy and local authorities' powers for the establishment and maintenance of nature reserves, it made further provision for the recording, creation,	Land Use

	maintenance and improvement of public paths and for securing access to open country and to amend laws relating to rights of way.	
Health Impact Assessment in Strategic Environmental Assessment (2001)	This is a review of Health Impact Assessment concepts, methods and practices to support the development of a protocol on Strategic Environmental Assessment which adequately covers health impacts. It discusses how decisions taken outside of the health sector can affect the health of individuals and populations by modifying their physical and social environment, and how this in turn affects social and economic development.	Population and Human Health
Healthy Lives, Healthy People: Our strategy for public health in England (2010)	This white paper sets out the government's long-term vision for the future of public health in England. The aim is to create a 'wellness' service (Public Health England) and to strengthen both national and local leadership.	Population and Human Health
Environmental Noise Regulations 2006	The European Environmental Noise Directive (END) is implemented in England by The Environmental Noise (England) Regulations 2006 and seeks to manage the impact of environmental noise through strategic noise mapping and the preparation and implementation of noise Action Plans. Under these regulations, the second round of strategic noise mapping has been undertaken and updated Noise Action Plans have been prepared.	Population and Human health
Noise Policy Statement for England 2010	The objectives of the Noise Policy Statement for England (NPSE) sets out three noise levels to be defined by the noise assessor: These are as follows: ▪ NOEL – No Observed Effect Level. This is the level below which no effect can be detected. Below this level there is no detectable effect on health and quality of life due to noise. ▪ LOAEL – Lowest Observed Adverse Effect Level. This is the level above which adverse effects on health and quality of life can be detected. ▪ SOAEL – Significant Observed Adverse Effect Level – This is the level above which significant adverse effects on health and quality of life can occur. The NPSE considers that the noise levels above the SOAEL would be seen to have, by definition, significant adverse effects and would be considered unacceptable. Where the assessed noise levels fall between the LOAEL and the SOAEL noise levels the policy statement requires that: "all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development. This does not mean that such adverse effects cannot occur but that efforts should be focused on minimising such effects" Where noise levels are below the LOAEL it is considered there will be no adverse effect. Once the noise levels are below the NOEL there will be no observable change. For the present guidance a numerical definition of LOAEL is given by the WHO Guidelines for Community Noise and BS8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings.	Population and Human Health

Contaminated Land (England) Regulations 2006	Outlines the regulations on contaminated land in order to prevent new land becoming contaminated by polluting substances whilst also tackling historic contamination of sites as it poses risks to human health and the environment.	Population and Human Health / Land Use
National Review of Waste Policy in England 2011	This document is a review of waste policy in England and is guided by a waste hierarchy which is a guide to sustainable waste management and a legal requirement. Key objectives are the use of more sustainable approaches to the use of materials and to improve the service to householders and businesses in order to deliver environmental benefits and support economic growth. This review covers a range of topics including: ▪ Sustainable use of materials and waste prevention ▪ Regulations and enforcement ▪ Food waste ▪ Energy recovery ▪ Infrastructure and planning ▪ Next steps in waste policy.	Material Assets
Waste Management Plan for England 2021	This document provides an analysis of the current waste management situation in England and fulfils the mandatory requirements of article 28 of the revised Waste Framework Directive (rWFD).	Material Assets
Waste Prevention Programme for England 2023	This Programme sets out the government's view of the key roles and actions which should be taken to move towards a more resource efficient economy. As well as describing the actions the government is taking to support this move, it also highlights actions businesses, the wider public sector, the civil society and consumers can take to benefit from preventing waste.	Material Assets
Resource Security Action Plan 2012	This document was developed in response to private sector concerns about the availability of some raw materials. It details how the government recognises these issues, provides a framework for business action to address resource risks, and sets out a high level actions to build on the developing partnership between government and businesses to address resource concerns.	Material Assets
Waste (England and Wales) Regulations 2011 as amended by The Waste (England and Wales) (Amendment) Regulations 2014	These regulations implement the revised EU Waste Framework Directive 2008/98 which sets requirements for the collection, transport, recovery and disposal of waste. It outlines that it is a requirement for businesses to confirm that they have applied the waste management hierarchy when transferring waste and include a declaration to this effect on their waste transfer note or consignment note. The regulations apply to businesses that: ▪ Produce waste	Material Assets

	▪ Import or export waste ▪ Carry or transport waste ▪ Keep or store waste ▪ Treat waste ▪ Dispose of waste ▪ Operate as waste brokers or dealers	
Air Quality Standards Regulations 2010 as amended by The Air Quality (Amendment of Domestic Regulations) (EU Exit) Regulations 2019	These regulations set legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO_2). As well as having direct effects, 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. It also incorporates the 4th air quality daughter directive that sets targets for levels in outdoor air of certain toxic heavy metals and polycyclic aromatic hydrocarbons.	Air
Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 Air Quality Strategy: framework for local authority delivery	This Air Quality Strategy sets out air quality objectives and policy options to further improve air quality in the UK from today into the long term. As well as direct benefits to public health, these options are intended to provide important benefits to quality of life and help to protect our environment.	Air
Clean Air Strategy, 2019	The Clean Air Strategy explains how the UK Government will tackle all sources of air pollution, sets out policy direction, and outlines measures that will drive the move to zero emission transport modes. The strategy links into other national level policies, outlining the same targets and strategies across multiple documents. The strategy includes numerous aims and goals, many drawn from other policy documents, that are collated in brief in the executive summary. These are framed in the following topics: ▪ protecting the nation's health; ▪ protecting the environment; ▪ securing clean growth and innovation; ▪ action to reduce emissions from transport; ▪ action to reduce emissions at home; ▪ action to reduce emissions from farming; ▪ action to reduce emissions from industry; and	Air

	▪ leadership at all levels. The Clean Air Strategy effectively summarises government policy with an impact on air quality from multiple different areas. Multiple government initiatives are listed where action has been taken by central government. Of particular importance, and reinforced by the Clean Air Strategy, is the adoption of challenging and enforceable local Air Quality Strategies.	
Air Quality Plan for Nitrogen Dioxide in the UK, 2017	Jointly produced by the DfT and DEFRA, this national plan determines an approach for areas with the worst levels of traffic-related air pollution to mitigate the effects. It sets out the framework for Clean Air Zones, allowing for targeted action to improve air quality in the “shortest possible time” as required by legal obligations to meet NO2 concentration thresholds. The document also sets out plans for ending the sale of new, conventional petrol and diesel cars and vans by 2040. The plan argues that NO2 accumulation is a local issue, as the pollutants do not disperse widely like greenhouse gasses. In line with this local approach, the plan sets out support to local authorities, including: ▪ setting up a £255 million Implementation Fund; ▪ establishing a Clean Air Fund; and ▪ providing £100m for retrofitting and new low emission buses. The plan outlines the introduction of several new funding streams that local authorities can utilise to finance measures to reduce NO2 emissions.	Air
Landscape Character Framework	This is a project that aims to map and describe the diverse landscape of England at a regional scale. It develops the idea of a landscape as a framework leading to better management of the environment. Key components are: ▪ Regional landscape character and associated descriptions. The key characteristics of each landscape type are described under ‘physical landscape’, ‘biodiversity’, ‘historic character’ and ‘perceptual landscape’ headings. ▪ Regional landscape character and associated descriptions. ▪ Physical landscape UNITS and associated geology, landform, ground type and land cover information upon which the landscape types and areas mapping and descriptions are based.	Landscape
Flood Risk Regulations 2009	The Regulations identify and take action in areas with the most significant flood risks. The purpose of the Act is to: ▪ Introduce the concept of flood risk management and the framework for the delivery of flood and coastal erosion risk management through national and local strategies	Water

	▪ Provide new definitions, for example “flood”, “surface runoff”, “Risk Management Authorities”, Lead Local Flood Authority” ▪ Establish the roles and responsibilities of the different risk management authorities	
Strategic Environmental Assessment and Habitats Regulations Assessment - Guidance for Water Resources Management Plans and Drought Plans	The guidance sets out methods designed to facilitate a consistent approach across the industry, while helping to ensure regulatory compliance. The guidance reviews SEAs and HRAs of plans produced during PR09 and clarifies emerging issues, including potential double counting of impacts, the role of SEA and how its outcomes should be integrated into plans; and the application of HRA at the plan as opposed to project level.	Water
Marine Plans (Marine Management Organisation)	A marine plan: ▪ sets out priorities and directions for future development within the plan area; ▪ informs sustainable use of marine resources; and ▪ helps marine users understand the best locations for their activities, including where new developments may be appropriate. Each of the 11 marine plan areas will have a marine plan with a long-term (20 years) view of activities and will be reviewed every 3 years. There will be 10 marine plans as the North West will have a single plan following requests to have a single process and one plan for these areas.	Water
National Infrastructure Plan (2014)	The National Infrastructure Plan (NIP) 2014 presents an overview of the government’s policies, investments and record on infrastructure delivery since 2010. The document identifies that over 2,500 different projects or schemes have been delivered in this Parliament. It also details the government’s approach to ensuring that the Top 40 priority investments remain on track to deliver, as well as providing the latest detail on the timing, funding and status of each of them.	Cumulative Effects
Environmental Principles Policy Statement 2023	The Environment Act 2021 places a duty on Ministers of the Crown to have due regard to the environmental principles policy statement. The policy statement sets out how policymakers should apply environmental principles to support environmental protection and enhancement. The final version of the strategic policy statement was laid in Parliament on 31 January 2023. The duty will commence on 1 November 2023. The 5 principles in this policy statement are internationally recognised as successful benchmarks for environmental protection and enhancement. When making policy, and where relevant, ministers will need to consider the: ▪ Integration principle: look at opportunities to embed environmental protection and/or enhancement	Biodiversity

- Prevention principle: prevent environmental harm before it occurs or contain existing damage
- Rectification at source principle: environmental damage should be addressed at its origin to avoid the need to remedy its effects later
- Polluter pays principle: the costs of pollution should be borne by those causing it
- Precautionary principle: where there are threats of serious or irreversible environmental damage, a lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation

The purpose of these principles is to guide ministers and policymakers towards opportunities to prevent environmental damage and enhance the environment. However, the principles are not rules and they cannot dictate policy decisions by ministers. Policymakers should consider and use the principles iteratively from the outset and during subsequent stages in policy development. They should identify the potential environmental effects (positive or negative) and use the principles to inform and influence the design of the policy. The 5 principles play an important role to support Environmental Improvement Plans and to delivering on our net zero commitment to tackle climate change.

The integration principle is overarching, and simply requires that policymakers should look for opportunities to embed environmental protection into policy. Not all environmental principles are of the same nature or function; they serve different purposes and will focus the policy in different ways. Some of the environmental principles will be appropriate for all relevant policy areas. Other principles will only be relevant in circumstances where there are specific factors for their use. In order for the principles to be most cost-effective and lead to better environmental outcomes, it is preferable for environmental damage to be prevented under the prevention principle. When environmental damage is already occurring, policymakers should consider the timeliness and urgency of policy interventions intended to achieve environmental protection. If it is to be addressed after it has occurred, then the rectification at source and polluter pays principles should be considered to reduce, mitigate or disincentivise damage.

This order of consideration is not fixed and may be adjusted if a different order more appropriately addresses a policy's environmental effects. Where a significant adverse effect is likely as a result of a policy, it may be necessary to consider all principles in determining the best policy.

Many actions can be taken based on applying the principles, either alone or in combination with others. Possible actions that could be taken as a result of having considered the principles may include:

- Amending policy options or including an additional policy option in the initial design of a policy, which reflects consideration of the environmental principles. In some cases, considering a principle may

	introduce a new option as a different solution to the policy problem. For example, one where the polluter may pay. This option would then be subject to the same policy evaluation as the existing options. ▪ Reframing the policy to accommodate the principles. In some cases, the policy design may need to be amended to ensure that a specific principle is applied. This could include the framing of the problem, the detail of how the policy option may work, or how it may be implemented. ▪ Embedding a principle in law or guidance. If policymakers want the principles to be used in decision-making or the implementation of a policy, this approach may be appropriate. This could be relevant where proposed legislation might include associated powers, duties or obligations that may have a significant effect on the environment. ▪ Postponing a policy until further evidence is gained. If a policymaker is unsure on whether action is appropriate, they should gather further evidence. Applying the precautionary principle may encourage policymakers to explore the potential environmental damage before moving forwards. Or, where the risk is serious, they may amend, postpone or discontinue the policy in rare cases.	
UK Shared Framework for Sustainable Development; One Future – Different Paths 2005	This framework document sets out the common goals and challenges of the UK Government and devolved administrations of Scotland, Wales and Northern Ireland. Each devolved administration will have its own strategy document but the framework demonstrates the commitment to work together on shared goals and challenges This framework document sets out what those are, and is an affirmation that the whole of the UK will work to common goals without compromising the strengths which our diversity of approach offers.	Cross-cutting
Environmental Permitting (England and Wales) Regulations 2016	The Environmental Permitting (England and Wales) Regulations 2016 provide an integrated framework for the regulation of activities that could harm the environment or human health. They require operators of “regulated facilities” to obtain a permit or to register some activities, which would otherwise require permits, as “exempt facilities”. They cover six main areas of environmental activity: waste regulation, emissions to the environment from industrial processes (air, water and land), water discharges, radioactive substances, energy efficiency and flood risk activities. The aim of the regime is to: ▪ Protect the environment so that statutory and Government policy environmental targets and outcomes are achieved. ▪ Deliver permitting and compliance with permits and certain environmental targets effectively and efficiently in a way that provides increased clarity and minimises the administrative burden on both the regulator and the operators. ▪ Encourage regulators to promote best practice in the operation of facilities.	Cross-cutting

The Great Britain Invasive Non-native Species Strategy 2023	Invasive Non-native Species are one of the top five drivers of biodiversity loss globally. They threaten Great Britain's ability to meet wider environmental targets and respond to climate change. Strategy sets out aims to guide collaboration between government, voluntary organisations, NGOs, researchers, businesses and the public to 2030.	Biodiversity
Hedgerow Regulations 1997	These regulations introduce new arrangements for local planning authorities in England and Wales, with the aim to protect important hedgerows in the countryside, by controlling their removal though a system of notification.	Biodiversity
UK Peatland Strategy 2018	The UK Peatland Strategy aims to drive and co-ordinate action across the UK, supported by country level plans that will establish a course for peatland conservation and management at a more detailed level. This strategy recognises there are different peatlands and types of pressures within the UK and seeks to provide common goals across the four devolved administrations of England, Northern Ireland, Scotland and Wales.	Biodiversity
UK Biodiversity Framework (UKBF) 2024	This renewed UKBF refreshes the "broad enabling structure" of the 2012 framework in the context of the new commitments by: ▪ Setting out the shared objectives for co-operation and collaboration between the four countries of the UK; ▪ Establishing a governance structure for overseeing and achieving the shared objectives. The UK is committed to taking positive action and is party to Multilateral Environmental Agreements such as the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change, and the Convention on International Trade in Endangered Species. The Kunming Montreal Global Biodiversity Framework, agreed at the COP 15 sets out its purpose as 'aiming to catalyze, enable and galvanize urgent and transformative action by Governments, and subnational and local authorities, with the involvement of all of society, to halt and reverse biodiversity loss, to achieve the outcomes it sets out in its Vision, Mission, Goals and Targets…' (Convention on Biological Diversity 2022). This UK Biodiversity Framework sets out four objectives for cross-UK work relating to biodiversity policy and supporting evidence: 1. To contribute to informing and developing the UK's position in international agreements and policy making. 2. To coordinate collective achievement of the UK's international obligations. 3. To enable and support country input to reporting required under the UK's international obligations. 4. To inform each other of domestic policy developments and collaborate to achieve shared aims where there is benefit in doing so at a UK level.	Biodiversity

UK National Biodiversity Strategy and Action Plan (NBSAP) 2025	NBSAPs are the main instrument for planning the implementation of the Convention on Biological Diversity (CBD) at the national level. The UK NBSAP for 2030 draws on the commitments made by the UK, the UK Overseas Territories, and Crown Dependencies to summarise and emphasise our collective ambition and determination to work together to address biodiversity loss. The UK NBSAP commits the UK to achieving all 23 of the Kunming-Montreal Global Biodiversity Framework targets at home. that include actions that need to be initiated immediately and completed by 2030. The UK submitted a set of 23 National Targets to the CBD on 1st August 2024. These sit alongside the NBSAP and include a subset of country-level commitments to illustrate the actions by which the GBF will be delivered in the UK.	Biodiversity
The National Emission Ceilings Regulations 2018	These Regulations implement in the United Kingdom Directive 2016/2284/EU of the European Parliament and the Council relating to national emission ceilings or certain atmospheric pollutants. The Regulations require the Secretary of State to prepare an annual inventory of emissions of certain pollutants and to ensure in each year from 2020 until 2029 anthropogenic emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter occurring within the United Kingdom do not exceed the national emission reduction commitments.	Cross-cutting
National Infrastructure Strategy 2020	The National Infrastructure Strategy sets out the government's plans to transform the UK's infrastructure networks. It is based around three central objectives: economic recovery; levelling up and strengthening the Union; and meeting the UK's net zero emissions target by 2050. This will be enabled by clear support for private investment and through a comprehensive set of reforms to the way infrastructure is delivered. This Strategy sets out early actions that the government will take to build the infrastructure needed to achieve net zero, improve air quality, create a greener urban environment, and minimise the impact of flooding.	
UK Climate Change Risk Assessment 2022, Presented to Parliament pursuant to Section 56 of the Climate Change Act 2008	The UK government is required to undertake an assessment of the risks from climate change faced by the UK every five years under the Climate Change Act 2008. The third UK Climate Change Risk Assessment (CCRA3) identifies sixty-one UK-wide climate risks and opportunities that cross-cut multiple sectors of the economy. The potential impact of these risks includes changes to health and productivity, and disruption to households, businesses and public services. Estimated damages caused by climate change could be at least 1% of GDP by 2045 and the report highlights that more action is needed in the majority of risk areas to increase resilience and reduce the costs associated with climate change. Decision making, such as for new housing or infrastructure, should consider the effects of climate change to avoid the need for costly remedial actions later and this should include low probability, high impact events, and interdependent or cascading risks.	Climatic Factors

Climate, people, places and value Design principles for national infrastructure, National Infrastructure Commission, 2021	The design principles for national infrastructure are: ▪ Mitigate greenhouse gas emissions and adapt to climate change: The design of our infrastructure must help set the trajectory for the UK to achieve net zero greenhouse gas emissions by 2050 or sooner. ▪ Good infrastructure is designed for the benefit of people and will plan for future changes in demographics and population. ▪ Provide a sense of identity and improve our environment: Well-designed infrastructure supports the natural and built environment. Projects should seek to deliver a net biodiversity gain, contributing to the restoration of wildlife on a large scale while protecting irreplaceable natural assets and habitats. ▪ Achieve multiple benefits and solve problems well: ▪ Good design finds opportunities to add value beyond the main purpose of the infrastructure.	Cross-cutting
Historic Buildings and Ancient Monuments Act 1953	This Act provides for the preservation and acquisition of buildings of outstanding historic or architectural interest and their contents and related property, and to amend the law relating to ancient monuments and other objects of archaeological interest.	Cultural Heritage
Ancient Monuments and Archaeological Areas Act 1979	Under the Act a monument which has been scheduled is protected against any disturbance including unlicensed metal detecting. Permission must be obtained for any work which might affect a monument above or below ground. Historic England gives advice to the Government on each application. In assessing an application, the Secretary of State will try to ensure any works on protected sites are beneficial to the site or are essential for its long-term sustainability.	Cultural Heritage
Heritage Statement: One Year On (2018)	This heritage statement sets out how the government will support the heritage sector and help it to protect and care for our heritage and historic environment in the coming years, in order to maximise the economic and social impact of heritage and to ensure that everyone can enjoy and benefit from it. It also provides progress updates from the Government Heritage Statement 2017, and areas to deliver further change in the future.	Cultural Heritage
Planning (Listed Buildings and Conservation Areas) Act 1990	Governs special controls in respect of buildings and areas of special architectural or historic interest. Any alteration, extension or demolition of a listed building in a way that affects its character as a building of special interest requires Listed Building Consent.	Cultural Heritage
Countryside and Rights of Way Act 2000	The Countryside and Rights of Way Act 2000 (CROW Act) normally gives a public right of access to land mapped as ‘open country’ (mountain, moor, heath and down) or registered common land. These areas are known as ‘open access land’. Activities such as sight seeing are enabled by this Act.	

Water Resources Act 1991	This Act aims to prevent and minimise pollution of water. The policing of this act is the responsibility of the Environment Agency and Natural Resources Wales. Under the act it is an offence to cause or knowingly permit any poisonous, noxious or polluting material, or any solid waste to enter any controlled water. Silt and soil from eroded areas are included in the definition of polluting material. If eroded soil is found to be polluting a water body or watercourse, the Environment Agency may prevent or clear up the pollution, and recover the damages from the landowner or responsible person.	Water
Water Act 2003	This act focuses on water resource management, conservation, and protection of consumer interests, The four broad aims of the Act are: ▪ the sustainable use of water resources; ▪ strengthening the voice of consumers; ▪ a measured increase in competition; and ▪ the promotion of water conservation. The Act amends the Water Resources Act 1991 to improve long-term water resource management by: creating two new forms of abstraction licence; regulating anew abstraction and irrigation rights; empowering the Environment Agency to revoke or vary an abstraction licence without compensation if it has not been used for four years; and removing the entitlement to compensation if the Secretary of State directs that a licence without a time limit should be curtailed on the grounds of serious environmental damage. It also amends the Water Industry Act 1991 so as to require water companies to prepare and publicise drought plans, to agree on and publicise water resource management plans and to further water conservation.	Water
Water Industry Act 1991	This Act sets out the main powers and duties of the water and sewerage companies, thus replacing those set out in the Water Act 1989, and defined the powers of the Director General of Water Services (now the Water Services Regulation Authority (Ofwat)). This Act sets out the duties for water companies in England and Wales including the need for supply licensing, as well as water resources management plans and general supply duties.	Water
The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017	Looks at the ecological health of surface water bodies as well as traditional chemical standards. In particular, it will help deal with, amongst others diffuse pollution, habitat, ecology, hydromorphology, barriers to fish movement, water quality, flow and sediment. The core aim of the Water Framework Directive is to protect the UK's water environments by preventing their deterioration and improving their quality. It does this by setting ecological targets and environmental objectives. Successful implementation will help to protect all elements of the water cycle and enhance the quality of our groundwater, rivers, lakes, estuaries and seas.	Water

Flood and Water Management Act 2010	This act provides for a better, more comprehensive management of flood risk for people, homes and businesses, helps safeguard community groups from unaffordable rises in surface water drainage charges and protects water supplies to the consumer. The key concepts include: ▪ Flood and Coastal Erosion Risk Management; ▪ Strategies for Natural flood and coastal erosion; ▪ The establishment of regional flood and coastal communities.	Water
River Basin Management Plans	These plans set out how organizations, stakeholders and communities will work together to improve the water environment. A RBD covers an entire river system, including river, lake, groundwater, estuarine and coastal water bodies and are designed to protect and improve the quality of the water environment.	Water
Shoreline Management Plans & Guidance 2006	Shoreline management plans (SMP) provide a long-term strategic plan which identify approaches for managing the flood and coastal erosion risks at every stretch of coastline. Shoreline management plans are developed and owned by the local councils and coastal protection authorities, with members mainly from local councils, Natural England, the MMO and the Environment Agency. There are 22 SMP's covering England and Wales. They identify the most sustainable approach to managing the flood and coastal erosion risks to the coastline in the short term (0-20 years), medium term (20-50 years) and long term (50-100 years). They are long term non-statutory plans which set out the agreed high-level objective for coastal flooding and erosion management for each SMP area. There are 20 SMPs which cover the English coast. 2006 Guidance Managing the shoreline involves identifying the best ways to manage risks to people and the developed, historic and natural environment, and how to put these into practice. A range of responses is available for managing risks, including: ▪ removing risks by avoiding or moving inappropriate development in vulnerable areas (such as through planning how land is used); ▪ reducing the likelihood of damaging events through management work that prevents damage (such as managing beaches, cliffs, dunes, saltmarshes and so on) or using back-up and secondary defence systems (such as for tidal defence); ▪ reducing the consequences of risks by providing early-warning systems (such as flood warning systems operated by the Environment Agency); and ▪ reducing the risks associated with potentially damaging events through flood and coastal defence schemes or altering buildings to reduce the chance of flood damage.	Water

	The most appropriate measures will depend on the problem, and on technical, environmental, social and economic circumstances. Some of these approaches are not covered by shoreline management. However, in many cases the response will involve a combination of measures including, for example, working with local planning authorities to achieve the same objectives.	
Flood Risk Management Plans	Flood risk management plans explain the risk of flooding from rivers, the sea, surface water, groundwater and reservoirs. FRMPs set out how risk management authorities will work with communities to manage flood risk between 2021-2027. They must cover areas of the river basin district (RBD) where flood risk is significant. These areas are called flood risk areas (FRAs). The Environment Agency and lead local flood authorities (LLFAs) identify FRAs through preliminary flood risk assessments. FRMPs also meet the aims of the National Flood and Coastal Erosion Strategy for England.	Water
Salmon and Freshwater Fisheries Act 1975	Created to protect particularly salmon and trout from commercial poaching, to protect migration routes, to prevent wilful vandalism and neglect of fishery's and to ensure correct licensing and water authority approval. Part II of the Act deals with obstructions to the passage of fish, including fishing weirs, screens and sluices; dictating when and where they can be used. Part III explains the proper times of fishing, selling and exporting fish.	Water
Eels (England and Wales) Regulations 2009	These regulations afford powers to the Environment Agency and Natural Resource Wales to implement measures for the recovery of European eel stocks all freshwater and estuarine waters and have important implications for operators of abstractions and discharges.	Water
Marine and Coastal Access Act 2009	This includes a marine planning system, which makes provision for a statement of the Government's general policies, and the general policies of each of the devolved administrations, for the marine environment, and also for marine plans which set out in more detail what is to happen in the different parts of the areas to which they relate. Welsh Ministers are the marine licensing authority in Wales, and the administration and determination of marine licenses has been delegated to NRW. Key areas of the Act include: ▪ a Marine Management Organisation under which many of the existing, diverse areas of marine regulation are centralised; ▪ streamlined the marine licensing system and provides powers to create joined-up marine planning policy; ▪ introduced measures to reform fisheries management; ▪ provided a framework for establishing marine conservation zones; ▪ enabled the creation of a walkable route around the English and Welsh coast.	Water

UK Marine Policy Statement 2011	The Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby: ▪ Promote sustainable economic development; ▪ Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects; ▪ Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and ▪ Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues.	Water
Urban Wastewater Treatment Regulations 1994	These regulations require Defra to: ▪ publish a situation report on the disposal of urban wastewater and sludge ▪ assess compliance with these regulations in each agglomeration (each area where wastewater is collected to be treated or discharged) ▪ publish a report on the level of that compliance, identified reasons for non-compliance, and proposed measures to achieve compliance with these regulations	Water
Storm overflows discharge reduction plan	The Plan sets stringent new targets to protect people and the environment. This will require water companies to deliver the largest infrastructure programme in water company history. Water companies will have to achieve targets set out in the plan: ▪ by 2035, water companies will have to improve all storm overflows discharging into or near every designated bathing water; and improve 75% of overflows discharging to high priority nature sites ▪ by 2050, this will apply to all remaining storm overflows covered by our targets, regardless of location	Water
Water Resources Infrastructure National Policy Statement	The National Policy Statement (NPS) aims to: ▪ streamline the planning permission process for nationally-significant water infrastructure projects ▪ enable new water supply infrastructure ▪ provide planning guidance for applicants	Water

	The NPS will be used as the primary basis for examination by the Examining Authority. It will be used by the Secretary of State to consider development consent applications for nationally-significant water resource infrastructure projects.	
The Water Resources (Abstraction and Impounding) (Amendment) Regulations 2008 (England and Wales)	These regulations are for ensuring that duties are fulfilled to secure the proper and efficient use of water resources, including the regulation of water abstraction from sources of supply, including rivers, lakes, canals and underground sources through a system of licensing to protect rights to abstract water and minimise damage to the environment. They also deal with procedural matters concerning applications to the Environment Agency for licences to abstract and impound water.	Water
The Water Abstraction and Impounding (Exemptions) Regulations 2017	These regulations partly implement the abstraction elements of the Water Act 2003, providing exemptions for abstraction activities that have insignificant impacts on the water environment, which would otherwise become licensable.	Water
Energy Act 2023	The Act's aim is for security and independence of energy supply in the United Kingdom using different methods including nuclear, oil, gas, hydro, and wind, with which the eventual outcome being decreased energy bills for the general population. The Act contains 14 parts, including different measures to achieve the goal of reduced and affordable energy prices	Material Assets
Environmental Improvement Plan (25 Year Environment Plan 2018, EIP23 and all future revisions)	The 25 Year Environment Plan, published in 2018, is the first Environmental Improvement Plan. The government must complete a statutory review of the EIP at least every 5 years. Its first revision (EIP23) was published in January 2023 and includes 13 legally binding environmental targets set under the EA 2021. In July 2024 the government announced a second review and revision of the EIP. The apex goal is improving nature and halting the decline in biodiversity. This is a large task but we have already started: we have created or restored wildlife habitats the size of Dorset, we are investing more than £750 million in tree-planting and peatland restoration through our Nature for Climate Fund, and we have established a network of marine protected areas across 35,000 square miles of English waters. We have also driven action on the global stage, reflecting that restoring nature is not just a national endeavour but also international: at UN Nature Summit COP15, we agreed a new Global Biodiversity Framework, with 23 global targets, including 30% of global land and 30% of global ocean to be protected by 2030. And our goals and targets at home will support progress towards the UN's Sustainable Development Goals internationally. To make further progress, we will: ▪ launch the Species Survival Fund to create, enhance and restore habitats	Cross-cutting

	▪ create, restore, and extend around 70 areas for wildlife through projects including new National Nature Reserves, and the next rounds of the Landscape Recovery Projects ▪ protect 30% of our land and sea for nature through the Nature Recovery Network and enhanced protections for our marine protected areas. We intend to designate the first Highly Protected Marine Areas this year ▪ implement the Environment Act 2021, including rolling out Local Nature Recovery Strategies to identify areas to create and restore habitat, and Biodiversity Net Gain to enhance the built environment ▪ support a transformation in the management of 70% of our countryside by incentivising farmers to adopt nature friendly farming practices ▪ publish an updated Green Finance Strategy, setting out the steps we are putting in place to leverage in private finance to deliver against these goals. We have a goal to raise at least £500 million per year of private finance into nature's recovery by 2027 and more than £1 billion by 2030 This goal is at the apex of our plan: all the other goals will help us to achieve it.	
National Planning Policy Framework 2024	Sets out the Government's planning policies for England and was revised in December 2024. The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development and supporting infrastructure in a sustainable manner. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives): a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure; b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and	Cross-cutting

c) an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

The NPPF is accompanied by relevant Planning Practice Guidance as follows:

- Air quality (2019): Provides guidance on how planning can take account of the impact of new development on air quality;
- Appropriate assessment (2019): Guidance on the use of Habitats Regulations Assessment
- Climate change (2019): Advises how to identify suitable mitigation and adaptation measures in the planning process to address the impacts of climate change.
- Environmental Impact Assessment (2020): Explains requirements of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- Flood risk and coastal change (2022): Advises how to take account of and address the risks associated with flooding and coastal change in the planning process.
- Green Belt (2019): Advice on the role of the Green Belt in the planning system
- Hazardous substances (2019): Explains planning controls relating to the storage of hazardous substances in England and how to handle development proposals around hazardous establishments.
- Healthy and safe communities (2022): Guidance on promoting healthy and safe communities.
- Historic environment (2019): Advises on enhancing and conserving the historic environment.
- Land affected by contamination (2019): Provides guiding principles on how planning can deal with land affected by contamination.
- Light pollution (2019): Advises on how to consider light within the planning system.
- Natural environment (2024): Explains key issues in implementing policy to protect and enhance the natural environment, including local requirements.
- Noise (2019): Advises on how planning can manage potential noise impacts in new development.

- Open space, sports and recreation facilities, public rights of way and local green space (2014): Gives key advice on open space, sports and recreation facilities, public rights of way and the new Local Green Space designation.
- Tree Preservation Orders and trees in conservation areas (2014): Explains the legislation governing Tree Preservation Orders and tree protection in conservation areas
- Renewable and low carbon energy (2023): Guidance to help local councils in developing policies for renewable and low carbon energy and identifies the planning considerations.
- Waste (2015): Provides further information in support of the implementation of waste planning policy.
- Water supply, wastewater and water quality (2019): Advises on how planning can ensure water quality and the delivery of adequate water and wastewater infrastructure.
- Chapter 14: Meeting the challenge of climate change, flooding and coastal change now includes the NPPF's support for the transition to net zero by 2050 and now includes overheating and water scarcity as climate impacts. Minor changes have been made to phrasing including the NPPF now outlines should help reduce greenhouse gas emissions, instead of before when it could help reduce greenhouse gas emissions and how local planning authorities should give significant weight to support energy efficiency and low carbon heating improvements instead of supporting these improvements.

New development should be planned for in ways that:

a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through incorporating green infrastructure and sustainable drainage systems; and

b) help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings in plans should reflect the Government's policy for national technical standards.

Local planning authorities should also give significant weight to the need to support energy efficiency and low carbon heating improvements to existing buildings, both domestic and non-domestic (including through installation of heat pumps and solar panels where these do not already benefit from permitted development rights). Where the proposals would affect conservation areas, listed buildings or other relevant designated heritage assets, local planning authorities should also apply the policies set out in chapter 16 of this Framework.

Environmental Damage (Prevention and Remediation) (England) Regulations 2015 as amended by The Environmental Damage (Prevention and Remediation) (England) (Amendment) Regulations 2019	These regulations impose obligations on operators of certain activities requiring them to prevent or remediate environmental damage. They apply to damage to protected species, natural habitats, sites of special scientific interest (SSSIs), water and land.	Cross-cutting
Biodiversity 2020: A strategy for England's wildlife and ecosystem services	This is a new biodiversity strategy for England which builds on the Natural Environment White Paper and provides a comprehensive picture of how the government are implementing international and EU commitments. It sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. It builds on the successful work that has gone before, but also seeks to deliver a real step change.	Biodiversity
The Town and Country Planning (Trees Preservation) (England) Regulations 2012	The regulations are made under the powers conferred on the Secretary of State by sections 202A to 202G, 206(1)(b), 212, 213(1)(b), 316(1), 323 and 333(1) of the Town and Country Planning Act 1990. The Regulations require an application to be made for cutting down, topping, lopping or uprooting of any tree with a tree preservation order. This application must: ▪ be made in writing to the authority ▪ include all of the information specified on the form ▪ be accompanied by: ▪ a plan which identifies the tree or trees to which the application relates; ▪ information specifying the work to be undertaken; ▪ a statement of the applicant's reasons for making the application; and ▪ appropriate evidence describing any structural damage to property or in relation to tree health or safety, as applicable.	Biodiversity
The Environmental Targets (Biodiversity) (England) Regulations 2022	These Regulations set long-term targets in respect of three matters within the priority area of biodiversity under section 1 of the Environment Act 2021. Regulations 4, 7 and 14 specify targets for the purposes of the Secretary of State's duty in section 1 of the 2021 Act to set a long-term target in respect of biodiversity. Regulation 11 specifies a target for the purposes of the Secretary of State's duty in section 3 of the 2021 Act to set a target in respect of a matter relating to the abundance of species.	Biodiversity

	Levelling up through a thriving forest economy:. The government will encourage demand for UK grown timber which can reduce the carbon footprint from imports and reduce emissions by replacing carbon-intensive materials and encourage innovative green finance for trees and woodlands. Long-term biodiversity target: species' extinction risk target: The long-term biodiversity target for species' extinction risk is to reduce the risk of species' extinction by 2042, when compared to the risk of species' extinction in 2022. Measurement of species' extinction risk target: The target is met by 31st December 2042 if the extinction risk value for 2042 calculated in accordance with paragraph (2) has a greater value than the baseline value, with the extinction risk value for 2042 and the baseline value being expressed as values in a range from 1 to 0 where— (a)a value of 1 would indicate that all baseline species were of Least Concern; and (b)a value of 0 would indicate that all baseline species were Regionally Extinct. (2) The Secretary of State must ensure that an extinction risk value for 2042 is calculated in 2042 using the same methodology that was used to calculate the baseline value(3), to indicate the aggregate risk of extinction for all baseline species at the time of its calculation. (3) In this regulation— "baseline species" means a species listed in the 2022 Red List Index for England; "the baseline value" means the value of 0.9070, being the value set out in the 2022 Red List Index for England to indicate the aggregate risk of extinction for all baseline species. (4) In this regulation— (a)a species is considered to be of Least Concern when it is classified as such for the purposes of calculating the 2022 Red List Index for England; (b)a species is Regionally Extinct when it is classified as such for the purposes of calculating the 2022 Red List Index for England. Reporting date for the species' extinction risk target: For the purposes of section 6(1) of the 2021 Act (environmental targets: reporting duties), the reporting date for the target in regulation 4 is 1st July 2043.	
The Environmental Targets (Woodland and Trees Outside Woodland) (England) Regulations 2022	2050 Target This regulation specifies a long-term target in accordance with section 1(1) of the 2021 Act in respect of the percentage of land in England covered by woodland and trees outside woodland. The target is that by the end of 31st December 2050 at least 16.5% of all land in England is covered by woodland and trees outside woodland. Measurement	Biodiversity

	To determine whether the target in regulation 3 is met, the area of land covered by woodland and trees outside woodland is to be calculated by the Forestry Commission.	
England Trees Action Plan 2021-2024	Building on ambitions outlined in the 25 Year Environment Plan, Government will focus on a number of actions, including: ▪ Nature Recovery: The government will continue to improve the condition and increase the extent of most precious woodland habitats, such as protected sites and irreplaceable ancient woodlands. ▪ Trees and woodlands for water and soil: The right trees and woodland in the right places along and near rivers and within water catchments present opportunities for improving water quality, for flood alleviation and nature recovery. Soil is critical to supporting trees and woodland and the government will improve the understanding of appropriate soil management to sequester carbon and protect this precious resource from degradation and inappropriate tree establishment. ▪ Trees and woodlands for people in town and country: Trees and woodlands can cool the settlements, improve air quality and contribute to community cohesion and sense of place. The government will take steps to improve public access to trees and woodlands in a responsible way, encourage community-led tree planting and invest in partnerships with communities and local government. ▪ Heritage and Landscape: Trees and woodlands are important features in the landscapes. The government will encourage greater landscape scale planning which will enhance and transform landscape character, while protecting and conserving heritage assets from inappropriate tree planting and during woodland management. ▪ Trees outside woodlands: Trees throughout the environment such as wood pastures, ancient and veteran trees, scrub, scattered and hedgerow trees contribute to England's natural beauty and are important spaces for nature. The government must continue to protect and enhance these features. ▪ Healthy, resilient trees and woodlands: The government will act now to help the trees and woodlands adapt, to enhance their resilience to stresses by reducing risks and encouraging greater diversity.	Biodiversity
30x30 Government Commitment 2024	The Prime Minister has committed in September 2020 to protect 30% of the UK's land by 2030. Existing National Parks, Areas of Outstanding Natural Beauty and other protected areas already comprise approximately 26% of land in England. An additional 4% – over 400,000 hectares, the size of the Lake District and South Downs national parks combined – will be protected to support the recovery of nature. The government will work with the Devolved Administrations to agree an approach across the UK, and with landowners and civil society to explore how best to increase the size and value of our protected land.	Biodiversity

	The government has committed significant new investment to support environmental enhancement and protection in England through the Nature for Climate Fund and the new Environmental Land Management (ELM) scheme.	
Nature Recovery Network, Defra and Natural England 2024	The Nature Recovery Network (NRN) is a major commitment in the government's 25 Year Environment Plan. By bringing together partners, legislation and funding, we can restore and enhance the natural environment. The NRN will help us deal with 3 of the biggest challenges we face: biodiversity loss, climate change and wellbeing. Establishing the NRN will: ▪ enhance sites designated for nature conservation and other wildlife-rich places - newly created and restored wildlife-rich habitats, corridors and stepping stones will help wildlife populations to grow and move ▪ improve the landscape's resilience to climate change, providing natural solutions to reduce carbon and manage flood risk, and sustaining vital ecosystems such as improved soil, clean water and clean air ▪ reinforce the natural and cultural diversity of our landscapes, and protect our historic natural environment ▪ enable us to enjoy and connect with nature where we live, work and play - benefiting our health and wellbeing ▪ Through our work to create the NRN, by 2042 we will: ▪ restore 75% of protected sites on land (including freshwaters) to favourable condition so nature can thrive ▪ create or restore 500,000 hectares of additional wildlife-rich habitat outside of protected sites ▪ recover threatened and iconic animal and plant species by providing more, diverse and better connected habitats ▪ support work to increase woodland cover ▪ achieve a range of environmental, economic and social benefits, such as carbon capture, flood management, clean water, pollination and recreation.	Biodiversity
Nature for Climate Fund	The Nature For Climate Peatland Grant Scheme (NCPGS), administered by Natural England, has awarded Restoration Grant funding to five successful applicants. Over the next four years they will each receive a share of £16 million from the Nature for Climate Fund, to restore peatland. This is Natural England's first round of NCPGS Restoration Grants, with more rounds planned for the next two years. Peatlands are Earth's largest terrestrial carbon store, holding more than twice the amount of carbon in all the world's forests. They cover 10.9% of England's land area. Unfortunately, 87% of our peatlands are degraded.	Biodiversity

	In this state, they do not capture and store carbon but emit an estimated 10 million tonnes of carbon dioxide equivalent every year. The NCPGS aims to capture this carbon by setting 35,000 ha of degraded peatland on a path to restoration by 2025. This will help deliver the UK's Net Zero target. It will contribute to the Nature Recovery Network with wider benefits to biodiversity, water quality and natural flood management.	
Natural England's climate change risk assessment and adaptation plan 2021 (published 2022) Climate change adaptation reporting: third round	This is the third adaptation report Natural England has produced to report under the Adaptation Reporting Power (ARP) of the Climate Change Act 2008. The report outlines the following themes in developing response to the biodiversity and climate crises in an integrated way: ▪ planning climate change adaptation with the aim of restoring ecological process at a landscape scale as part of nature recovery to enhance resilience and accommodate inevitable change. ▪ working on adaptation can deliver multiple benefits, including integrating climate change mitigation, biodiversity and enhancing the quality of life for people. ▪ recognising the benefits of local level adaptation and delivering adaptation in a place-based way. ▪ using a natural capital and ecosystem approach to account for the multiple benefits that nature provides to society ▪ developing adaptive management that takes account of change in the natural world both in the policy advice and delivery space. ▪ ensuring different work programmes have a joined-up approach to adaptation. ▪ developing the evidence base to support practical adaptation, including monitoring and evaluation of adaptation actions. ▪ developing a joined-up approach to Nature-based Solutions which deliver mitigation and adaptation with measurable benefits for nature and people. Key overarching risks and opportunities: ▪ Risks to the viability of the Nature Recovery Network and the recovery of threatened species and habitats ▪ Risks to the status of protected sites for biodiversity and geodiversity ▪ Risks to the ability of the SSSI network, Marine Protected Area (MPAs), NNRs and protected landscapes to adapt to climate change. ▪ Risks to natural capital and its contribution to agriculture, fisheries and sustainable development including farm advice and net gain. ▪ Risks to the viability of natural areas for people to access and connect with nature.	Biodiversity

	▪ Risks and Opportunities for different species and habitats under changing climatic conditions. ▪ Opportunities for landscape scale measures to tackle climate change that enhance the natural environment. ▪ Opportunities for nature recovery and nature-based solutions to help nature and society adapt to climate change. ▪ Opportunities for nature-based solutions to provide additional space for people to connect with nature and cope with climate change.	
Carbon Storage and Sequestration by Habitat, Natural England 2021	Achieving 'net zero' greenhouse gas (GHG) emissions by 2050 is a statutory requirement for the UK and England. It will require major changes in the way we manage the land, coast, and sea, alongside decarbonisation of the energy, transport and other sectors. The natural environment can play a vital role in tackling the climate crisis as healthy ecosystems take up and store a significant amount of carbon in soils, sediments and vegetation. Alongside many other negative impacts, the destruction and degradation of natural habitats has resulted in the direct loss of carbon stored within them. Restoring natural systems can start to reverse this damage at the same time as supporting and enhancing biodiversity, alongside delivering co-benefits for climate change adaptation, soil health, water management and society.	Climate factor
Climate Change Adaptation Manual: Evidence to support nature conservation in a changing climate, RSPB, Natural England, 2020	The need for climate change adaptation has become widely recognised in the last 20 years. The environmental sector was one of the first to identify the need and to start developing approaches to adaptation. Initially much of the focus was on identifying general principles. This was an essential first step, but adaptation needs to be embedded into decision-making in specific places and circumstances. There can be a big gap between general principles and specific applications. Effective adaptation requires local knowledge and experience, combined with relevant scientific information and an understanding of practical options. It will be assisted by sharing good practice and evidence of what techniques have worked in particular places and situations. Utilise the concept of sustainable adaptation to look at the prerequisites for a long-term, integrated approach to adaptation, including the synergies and trade-offs associated with cross-sectoral adaptation. Four key principles: ▪ Adaptation should aim to maintain or enhance the environmental, social and economic benefits provided by a system, while accepting and accommodating inevitable changes to it. ▪ Adaptation should not solve one problem while creating or worsening others. Action that has multiple benefits and avoids creating negative effects for other people, places and sectors should be prioritised.	Climate Factor

	▪ Adaptation should seek to increase resilience to a wide range of future risks and address all aspects of vulnerability, rather than focusing solely on specific projected climate impacts. ▪ Approaches to adaptation should be flexible and not limit future action Adaptation often needs to be developed with less knowledge and more uncertainty than is usual when making management decisions. Accepting uncertainty and adopting approaches such as adaptive management to deal with it is widely advocated.	
Local Nature Recovery Strategies Policy Paper June 2023	As part of the Government's legally binding commitments to end the historic and on-going declines of nature in England and for nature to recover, local nature recovery strategies are required. The Secretary of State for Environment, Food and Rural Affairs has appointed 48 responsible authorities to lead on preparing a local nature recovery strategy for their area. They will identify practical, achievable proposals developed with the input of people who know and understand the area. Together these 48 strategy areas cover the whole of England with no gaps or overlaps. ▪ This paper provides further information on: ▪ What local nature recovery strategies will look like ▪ How they will be prepared ▪ Who can be involved with preparing local nature recovery strategies ▪ How local nature recovery strategies will be delivered ▪ When strategies will be reviewed and updated.	Biodiversity
Making Space for Nature - A review of England's Wildlife Sites and Ecological Network	An independent review, chaired by Professor Sir John Lawton, of England's wildlife sites and ecological network considered whether England's collection of wildlife areas represented a coherent and robust ecological network that would be capable of responding to the challenges of climate change and other pressures, was published in 2010, with recommendations to help achieve a healthy natural environment that will allow plants and animals to thrive. The Making Space for Nature review summarised what needed to be done in four words: more, bigger, better and joined, and set out some guiding principles and 24 recommendations.	Biodiversity
Defra Policy paper: Notice of designation of sensitive catchment areas 2024	Department for Environment, Food and Rural Affairs (Defra) published a notice on 25 January 2024 which outlines 19 catchment areas which have been designated as "sensitive for phosphorus or nitrogen where a habitats site is wholly or partly in England is considered in an unfavourable condition by virtue of pollution from nutrients in the water from one of both of these nutrients." The areas include SACs, SPAs, Sites of Special Scientific Interest (SSSIs) and Ramsar sites.	Biodiversity

	In designated catchments, water companies have a duty to ensure wastewater treatment works serving a population equivalent over 2,000 meet specified nutrient removal standards by 1 April 2030 where the designation takes effect from 25 January 2024. Competent authorities (including local planning authorities) considering planning proposals for development draining via a sewer to a wastewater treatment works subject to the upgrade duty are required to consider that the nutrient pollution standard will be met by the upgrade date for the purposes of Habitats Regulations Assessments.	
England Peat Action Plan 2021	The England Peat Action Plan sets out the government's long-term vision for the management, protection and restoration of our peatlands, so that they provide a wide range of benefits to wildlife, people and the planet. The 25 Year Environment Plan set out the ambition to create and deliver a new ambitious framework for peat restoration in England. The plan sets out how it will achieve this and what it will deliver which include: Secure our peatlands' carbon store so they meet their contribution to Net Zero by 2050. This cannot be achieved by only restoring upland peat but will require significant changes to how we manage our lowland peat. Deliver Natural Flood Management and improve water quality, to increase drought resilience and the sustainability of our water supplies. Protect and restore our peatland habitats so they are healthy, well-functioning ecosystems rich in wildlife. These wildlife rich peatlands will form a key part of our Nature Recovery Network. Drive private investment in peatland restoration through natural capital markets that allow the accreditation and sale of the ecosystems services that healthy peatlands can provide Protect the historic environment of peatlands so the important evidence of our past can be preserved for the future, and ensure that restoration projects deliver cultural heritage, education and enjoyment, alongside other public goods.	Biodiversity
Plan for Water: our integrated plan for delivering clean and plentiful water, 2023	The Department for Environment, Food and Rural Affairs (Defra) Plan for Water sets out the actions we will take to: ▪ transform management of the water system ▪ clean up the water environment ▪ create a sustainable supply of water for people, businesses and nature The plan covers both the water environment, how clean it is, and water resources, how much of it we have. It brings together the significant action already taken, along with more investment, stronger regulation and tougher enforcement on those who pollute.	Water

Meeting our future water needs: a national framework for water resources – accessible summary Policy paper, 2020	The national framework explores England's long term water needs for: ▪ public water supplies ▪ agriculture ▪ the power and industry sectors ▪ environmental protection The national framework report marks a move to strategic regional planning. It sets out the principles, expectations and challenges for 5 regional groups (made up of the 17 English water companies and other water users). These have been developed and agreed by the regional groups, other major water abstractors, government, regulators and stakeholders. This joined up approach is needed to: ▪ address the scale of challenges we face ▪ realise opportunities from water resources planning The framework contributes to two of the pledges in the government's 25 year environment plan. These are to: ▪ leave the environment in a better state than we found it ▪ improve resilience to drought and minimise interruptions to water supplies	Water
Water Resource Management Plan (WRMP)	WRMPs are required by water companies within England and Wales, to set out how a secure supply of water will be achieved for customers and a protected and enhanced environment. The duty to prepare and maintain a WRMP is set out in sections 37A to 37D of the Water Industry Act 1991. They must be prepared every 5 years and reviewed annually.	Water
Abstraction licensing strategies	The Environment Agency controls how much water is taken with a permitting system. The Environment Agency regulate existing licences and grant new ones. To do this they use: ▪ the catchment abstraction management strategy (CAMS) process ▪ abstraction licensing strategies The publication 'managing water abstraction' sets out the approach and regulatory framework within which the Environment Agency will manage water resources.	Water
Regional Water Resources Management Plans	Following consultation on draft water resources management plans, water companies have now published statements of response and revised draft plans. These statements build on the draft plans and include changes in response to consultation feedback, and an update to the guidelines following policy and legislation changes. The revised draft plans have significant improvements and mark a key milestone before plans are finalised. The Department for Environment, Food and Rural Affairs (Defra) has written to companies	Water

	individually about next steps for their water resources management plan, with many requiring further actions before the plans can be finalised. These plans are a positive step forward as, upon implementation, they should: ▪ improve resilience to extreme droughts ▪ ensure we are prepared for the future impacts of climate change ▪ serve a growing population and thriving economy ▪ mark a transition to longer term planning to protect and improve the environment The 5 regional water resources groups have produced new plans that cross water company boundaries and work with other sectors to ensure optimum solutions to securing future water supplies and environmental resilience. These plans include adopting a long-term environmental destination to protect and improve water environments of the region. The regional plans are the result of notable work and collaboration across the regional group members, and mark a step change to strategic water resources planning. Water Resources East finalised its regional plan in late 2023. We are anticipating that other regions will finalise their plans during 2024.	
Public Health England – Strategy (2020-2025)	This strategy outlines the focus of Public Health England to help protect people and help people to live longer in good health. It notes that the most important contributors to a life in good health, including mental health, are to have a job that provides a sufficient income, a decent and safe home and a support network. Among a range of issues the strategy also sets out the need for cleaner air.	Population and Human Health
The Environmental Targets (Fine Particulate Matter) (England) Regulations 2022	These Regulations set an annual mean concentration target. The target is that by the end of 31st December 2040 the annual mean level of PM2.5 in ambient air must be equal to or less than 10 µg/m³ (“the target level”). The annual mean concentration target is met by 31st December 2040 if, at every relevant monitoring station, the annual mean level of PM2.5 in ambient air, calculated in accordance with regulation 15 and rounded to the nearest whole number of µg/m³, is equal to or less than the target level in the year 2040. Reporting date For the purposes of section 6(1) of the 2021 Act the reporting date for the annual mean concentration target is 15th July 2041.	Air
Safeguarding our Soils: a strategy for England 2009	The purpose of this strategy is to highlight the areas in which soil will be prioritised and to focus attention on tackling degradation threats. The vision of this paper is to try and ensure that by 2030, all England’s soils will be managed sustainably and depredation threats tackled successfully and that this will improve the quality of	Land Use

	England's soils and safeguard their ability to provide essential services for future generations. Key topics include: ▪ Better protection for agricultural soils ▪ Protecting and enhancing stores of soil carbon ▪ Building the resilience of soils to a changing climate ▪ Preventing soil pollution ▪ Future research and monitoring.	
Resources and Waste Strategy for England, DEFRA and Environment Agency 2018	This strategy sets out how material resources will be preserved by minimising waste, promoting resource efficiency and moving towards a circular economy in England. It combines actions we will take now with firm commitments for the coming years and gives a clear longer-term policy direction in line with our 25 Year Environment Plan. It sets out to double resource productivity and eliminate avoidable waste of all kinds (including plastic waste) by 2050, minimise the damage caused to our natural environment by reducing and managing waste safely and carefully and deal with waste crime. A more circular economy (re-use, remanufacture, repair, recycle) will keep resources in use for as long as possible. It will allow us to extract maximum value from them, then recover and regenerate products and materials at the end of their lifespan.	Material Assets
Ambient Air Quality and Cleaner Air for Europe Directive (2008/50/EC)	This Directive includes the following key elements: ▪ The merging of most of existing legislation into a single directive (except for the fourth daughter directive) with no change to existing air quality objectives* ▪ New air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives – exposure concentration obligation and exposure reduction target ▪ The possibility to discount natural sources of pollution when assessing compliance against limit values ▪ The possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.	Air
EU Thematic Strategy on Air Quality (2005)	This thematic strategy on air pollution establishes interim objectives for air pollution in the EU and proposes appropriate measures for achieving them. It recommended that legislation be modernised, be better focused on the most serious pollutants and that more is done to integrate environmental concerns into other policies and programmes.	Air

Establishing measures for the recovery of the stock of European eel 2007 (1100/2007)	This regulation establishes measures for the recovery of the stock of European eel. It has a broad, holistic approach to the management of the eel stock, covering different life stages and migration routes of the eel. Its scope covers Union waters, coastal lagoons, estuaries, and rivers and communicating inland waters of Member States that flow into the seas. The Eel Regulation lays down an obligation for Member States, as of 2009, to define their natural habitats for the European eel (eel river basins) and to have in place Eel Management Plans (EMP) for these habitats.	Biodiversity
EU Biodiversity Strategy to 2020	2050 vision: By 2050, European Union biodiversity and the ecosystem services it provides — its natural capital — are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided. 2020 headline target: Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.	Biodiversity
Fresh Water Fish Directive (2006/44/EC)	The Member States are to designate fresh waters needing protection or improvement in order to support fish life. Two categories of water are to be designated: suitable for salmonids (salmon, trout) and suitable for cyprinids (coarse fish).	Water
Directive on the Conservation of Wild Birds (79/409/EEC) (as amended)	This Directive relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the protection, management and control of these species and lays down rules for their exploitation.	Biodiversity
Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC)	This Directive (EEC) 92/43 aims at ensuring the conservation of natural habitats and of wild fauna and flora in the European territory. It establishes a framework that helps Member States design and implement measures to maintain and/or restore natural habitats and species of wild fauna and flora. These habitats include terrestrial and aquatic areas.	Biodiversity
Directive on Animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals (2006/88/EC)	This directive sets out the following requirements: ▪ the animal health requirements to be applied for the placing on the market, the importation and the transit of aquaculture animals and products thereof; ▪ minimum preventive measures aimed at increasing the awareness and preparedness of the competent authorities, aquaculture production business operators and others related to this industry, for diseases in aquaculture animals;	Biodiversity

	▪ minimum control measures to be applied in the event of a suspicion of, or an outbreak of certain diseases in aquatic animals.	
Limiting Global Climate Change to 2 degrees Celsius - The way ahead for 2020 and beyond (2007)	This Communication was addressed to the Spring 2007 European Council to decide on an integrated and comprehensive approach to the EU's energy and climate change policies. It follows up on the 2005 Communication "Winning the Battle against Global Climate Change", which provided concrete recommendations for EU climate policies and set out key elements for the EU's future climate strategy. This Communication proposes that the EU pursues in the context of international negotiations the objective of 30 % reduction in greenhouse gas emissions (GHG) by developed countries by 2020 (compared to 1990 levels). This is necessary to ensure that the world stays within the 2ºC limit. Until an international agreement is concluded, and without prejudice to its position in international negotiations, the EU should take on a firm independent commitment to achieve at least a 20 % reduction of GHG emissions by 2020, by the EU emission trading scheme (EU ETS), other climate change policies and actions in the context of the energy policy.	Climate Factor
A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy (2018)	This communication sets the basis for the future of the EU energy and climate policy and proposes complex and ambitious scenarios which will have cross-cutting impacts on all sectors of EU policy. This communication together with the Energy Union regulation creates the new framework for upcoming policies in the field of energy ad climate. Local and Regional Authorities are important in ensuring the transition to climate neutrality does not impact negatively on vulnerable territories or citizens.	Climate Factor
Promotion of the use of energy and renewable sources Directive (2009/28/EC)	This directive, which amends and repeals earlier Directives 2001/77/EC and 2003/30/EC, creates a common set of rules for the use of renewable energy in the EU so as to limit greenhouse gas (GHG) emissions and promote cleaner transport. It sets national binding targets for all EU countries with the overall aim of making renewable energy sources account by 2020 for 20% of EU energy and for 10% of energy specifically in the transport sector (both measured in terms of gross final energy consumption, i.e. total energy consumed from all sources, including renewables). ▪ Each EU country is to make a national action plan for 2020, setting out how to achieve the national target for renewables in gross final energy consumption as well as the 10% target for renewable energy sources in transport. ▪ To help achieve targets in a cost-effective way, EU countries can exchange energy from renewable sources*. To count towards their action plans, EU countries can also receive renewable energy from countries outside the EU, provided that energy is consumed in the EU and that it is produced by modern/efficient installations.	Climate Factor

	▪ Each EU country must be able to guarantee the origin of electricity, heating and cooling produced from renewable energy sources. ▪ EU countries should build the necessary infrastructure for using renewable energy sources in the transport sector.	
Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development	The review underlines that in recent years the EU has mainstreamed sustainable development into a broad range of its policies. In particular, the EU has taken the lead in the fight against climate change and the promotion of a low-carbon economy. At the same time, unsustainable trends persist in many areas and the efforts need to be intensified. The review takes stock of EU policy measures in the areas covered by the EU SDS and launches a reflection on the future of the EU SDS and its relation to the Lisbon strategy.	Cross-cutting
European Commission Environmental Liability Directive (2004/35/EC)	The directive established a comprehensive EU-wide liability regime for environmental damage based on the 'polluter-pays' principle. By making those that have caused environmental damage liable for remediation, the directive provides a strong incentive to avoid damage occurring in the first place. It also makes those whose activities threaten the environment liable for taking preventive action. The directive supports other EU environmental laws that are designed to protect the environment. The overall aim of the directive is to prevent and fully remedy damaged natural resources and their services to the condition that would have existed if no damage had occurred.	Cross-cutting
Directive on the assessment of the effects of certain plans and programmes on the environment (2001/42/EC)	The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.	Cross-cutting
Convention for the Protection of the Architectural Heritage of Europe (Granada Convention) (1985)	Reinforces and promotes policies for the conservation and enhancement of Europe's heritage.	Cultural Heritage
The European Convention on the Protection of Archaeological Heritage (Valletta Convention) (1992)	Updates the previous 1969 Convention and makes conservation and enhancement of archaeological heritage a goal of urban and regional planning policies. It is concerned in particular with arrangements to be made for co-operation among archaeologists and town and regional planners in order to ensure optimum conservation of archaeological heritage. Sets guidelines for funding excavation and research work and publication of findings. Also deals with public access and educational actions to develop public awareness of the value of archaeological heritage.	Cultural Heritage

European Landscape Convention 2000 – the 'Florence Convention'	The European Landscape Convention is part of the Council of Europe's work on natural and cultural heritage, spatial planning and the environment. The convention states that: ▪ the landscape contributes to the formation of local cultures and that it is a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity. ▪ that developments in agriculture, forestry, industrial and mineral production techniques and in regional planning, town planning, transport, infrastructure, tourism and recreation and, at a more general level, changes in the world economy are in many cases accelerating the transformation of landscapes. The aims of this Convention are to promote landscape protection, management and planning, and to organise European co-operation on landscape issues.	Landscape
Environmental Noise Directive (2002/49/EC)	This Directive relates to the assessment and management of environmental noise and is the main EU instrument to identify noise pollution levels and to trigger the necessary action both at Member State and at EU level. To pursue its stated aims, the Environmental Noise Directive focuses on three action areas: ▪ the determination of exposure to environmental noise ▪ ensuring that information on environmental noise and its effects is made available to the public ▪ preventing and reducing environmental noise where necessary and preserving environmental noise quality where it is good The Directive applies to noise to which humans are exposed, particularly in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise-sensitive buildings and areas. It does not apply to noise that is caused by the exposed person himself, noise from domestic activities, noise created by neighbours, noise at workplaces or noise inside means of transport or due to military activities in military areas. The Directive requires Member States to prepare and publish, every 5 years, noise maps and noise management action plans for: ▪ agglomerations with more than 100,000 inhabitants ▪ major roads (more than 3 million vehicles a year) ▪ major railways (more than 30.000 trains a year) ▪ major airports (more than 50.000 movements a year, including small aircrafts and helicopter.	Population and Human Health

Water Framework Directive (2000/60/EC)	Looks at the ecological health of surface water bodies as well as traditional chemical standards. In particular it will help deal with, amongst others diffuse pollution, habitat, ecology, hydromorphology, barriers to fish movement, water quality, flow and sediment. Successful implementation will help to protect all elements of the water cycle and enhance the quality of our groundwater, rivers, lakes, estuaries and seas.	Water
Groundwater Directive (2006/118/EC)	Establishes a regime which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. Establishes quality criteria taking account of local characteristics. Member States have to establish standards at the most appropriate level and take into account local or regional conditions. It requires groundwater quality standards to be established by the end of 2008; pollution trend studies to be carried out by using existing data and mandatory WFD data; pollution trends to be reversed so that environmental objectives are achieved by 2015; measures to prevent or limit inputs of pollutants into groundwater; reviews of technical provisions of the directive to be carried out in 2013 and every six years thereafter; compliance with good chemical status criteria. This directive was replaced by the WFD at the end of 2013.	Water
UK Post-2010 Biodiversity Framework (2012)	This is a Framework that covers the period from 2011 to 2020 and was developed in response to two main drivers: the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its 5 strategic goals and 20 'Aichi Biodiversity Targets', published in October 2010; and the EU Biodiversity Strategy (EUBS), released in May 2011. The Framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Biodiversity Targets' and the aims of the EU biodiversity strategy. It identifies the activities required to complement the country biodiversity strategies, and where work in the country strategies contributes to international obligations. In total, 23 areas of work have been identified where all the countries have agreed that they want to contribute to, and benefit from, a continued UK focus, and an Implementation Plan was published in November 2013.	Biodiversity
UK Climate Change Risk Assessment 2017 Synthesis report: priorities for the next five years	This report outlines the UK Government's views on the main issues raised in the Climate Change Risk Assessment (CCRA) Evidence Report (an independent analysis funded by UK Government and Devolved Governments), to highlight actions already in place to manage the risks identified in the CCRA, and to outline UK Government plans for the future. This report sets out the main priorities for adaptation in the UK under five key topics identified in the CCRA Evidence Report: Natural environment and natural assets; Infrastructure; People and the built environment; Business and industry and international dimensions and describes the policy context in each area.	Climate Factor

The Conservation of Habitats and Species Regulations (2010) (as amended)	These regulations consolidate and update the Conservation Regulations 1994, and they implement the EU Habitats Directive, aiming to protect biodiversity in England and Wales. The regulations designate and protect European sites and species and adapt planning controls to safeguard and protect these areas.	Biodiversity
The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019)	These regulations adapt the 2010 regulations for a post-Brexit UK. They transfer functions from the European Commission to UK authorities, establish a national site network, and set management objectives for conservation. The 2019 amendments focus on UK-specific governance and reporting, removing EU oversight.	Biodiversity
Delivering a healthy natural environment. Ecosystem approach action plan, Defra (2010)	Defra published this as an update to 'Securing a healthy natural environment: An action plan for embedding an ecosystems approach'. It focused on two main areas: focusing on a more holistic or integrated based approach based on whole ecosystems; and ensure the value of ecosystem services is fully reflected in policy and decision making in Defra and across government at all levels. The plan update outlines the change in approach to ecosystems over the two years since the previous report, an overview in progress in five key priority areas and conclusions from overall progress.	Biodiversity
The Invasive Alien Species (Enforcement and Permitting) Order 2019	This order enforces EU regulation 1143/2014 on preventing and managing invasive alien species. It lists species of special concern and sets strict restrictions on their import, keeping, causes to grow, breeding, transport, sale, use and release. The order includes provisions for offences, penalties, enforcement, licensing and permitting. The overall aim and objective of the order is to protect native biodiversity and ecosystems from the adverse impacts of invasive species.	Biodiversity
The Great Britain Invasive Non-Native Species Strategy (2023 to 2030), Defra (2023).	An update to the original strategy in 2008, and a previous update in 2015 It cover Invasive Non-native Species (INNS) in the terrestrial, freshwater, and marine environments and species that become invasive in areas outside their natural range. It outlines the importance of managing INNS and the adverse impacts they can cause. The key overarching outcomes of the Strategy are: ▪ Prevention ▪ Surveillance, early detection and monitoring ▪ Management ▪ Prioritisation and risk analysis ▪ Evidence ▪ Awareness raising	Biodiversity

	▪ Coordination	
A narrative for conserving freshwater and wetland habitats in England, Natural England (2016).	This evidence-based narrative provides an overview of circumstances relating to the conservation of freshwater and wetland habitats in England, considering their ecological function, the natural and anthropogenic factors affecting them, the management principles that can be drawn from the evidence, and the respective roles of the main policy mechanisms involved in their conservation. It covers all running and standing water habitats, of whatever size, and terrestrial wetland habitats including bogs, fens, swamp and wet woodland.	Biodiversity
Conservation 21 - Natural England's Conservation Strategy for the 21st Century, Natural England (2016)	The strategy is based on three guiding principles: ▪ Creating resilient landscapes and seas ▪ Putting people at the heart of the environment ▪ Growing natural capital These were created to counter overall wildlife decline, landscape degradation, improve individuals' connectivity to their local environment, and to stop the environment being seen as a constraint to economic development.	Cross Cutting
State of Natural Capital Annual Report 2020, Natural Capital Committee (2020)	The State of Natural Capital Annual Report 2020 by the Natural Capital Committee evaluates the UK's progress in integrating natural capital into policy and decision-making. It highlights the need for better data and metrics, emphasizes the importance of the 25 Year Environment Plan, and calls for stronger legislative frameworks. The report also stresses the significance of achieving net-zero greenhouse gas emissions by 2050 and improving environmental land management.	Biodiversity
Standing Advice on Protected Species, Natural England (2016)	A guide for planning authorities whether a planning application would harm or disturb a protected species which gives general advice for each specific protected species. The guide also outlines habitats where there is suitable potential to encounter different protected species and different times of year when then are commuting, roosting, breeding, foraging etc.	Biodiversity
Climate Change Act 2008	The Climate Change Act 2008 is a UK law mandating greenhouse gas emission reductions. It sets legally binding targets, including an 80% reduction by 2050, later updated to net zero emissions. The Act introduces carbon budgeting, requiring five-year plans to meet targets. It also establishes the Committee on Climate Change to advise the government. The Act aims to transition the UK to a low-carbon economy and includes provisions for climate change adaptation.	Climate Factor
The National Adaptation Programme and the Fourth	The UK government is committed to taking clear and decisive action to maintain our country's resilience to the impacts of a changing climate. Our third National Adaptation Programme (NAP3) establishes a clear basis for	Climate Factor

Strategy for Climate Adaptation Reporting, Defra (2023)	action over the next 5 years, building on and developing the approach from previous rounds since 2012. It sets out how we will maintain living standards and protect our environment by making sure the country is resilient and can effectively adapt to changes in our climate. The UK government's vision for adaptation is for a country that effectively plans for and is fully adapted to the changing climate, with resilience against each of the identified climate risks. This strategy sets out the government's vision for infrastructure, emphasising the need for continued investment as an enabler of economic growth, alongside long term planning to support delivery of net zero by 2050 while levelling up the country. The strategy recognises that effective adaptation will be essential to achieving this	
National Planning Policy Framework (NPPF) (2024)	The National Planning Policy Framework (NPPF) 2024 outlines the UK government's planning policies for England and how they should be applied. It provides a framework within which locally-prepared plans can provide for housing and other development in a sustainable manner. Preparing and maintaining up-to-date plans should be seen as a priority in meeting this objective. It emphasizes sustainable development, balancing economic, social, and environmental objectives. Key principles include achieving high-quality design, protecting Green Belt land, and ensuring the vitality of town centres. The 2024 updated introduced mandatory housing targets, the concept of the "Grey Belt" for developing lower-quality Green Belt land, and a new Standard Method for calculating housing need, making it a mandatory, not advisory, starting point for local plans. Key changes include increased emphasis on affordable housing, provisions for essential community infrastructure within Green Belt development, and alignment with the government's 1.5 million new homes target.	Cross Cutting
Securing the Future – Delivering the UK Sustainable Development Strategy (2005)	The strategy is for sustainable development aims to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. The new strategy contains new a new purpose and principles for sustainable development and new shared priorities agreed across the UK. The strategy contains: ▪ a new integrated vision building on the 1999 strategy – with stronger international and societal dimensions ▪ five principles – with a more explicit focus on environmental limits ▪ four agreed priorities – sustainable consumption and production, climate change, natural resource protection and sustainable communities, and ▪ a new indicator set, which is more outcome focused, with commitments to look at new indicators such as on wellbeing.	Cross Cutting

The Natural Choice: Securing the Value of Nature, Defra (2011)	This paper emphasis the economic value of nature, advocating for its integration into decision-making processes. It outlines strategies to protect and improve the natural environment, promote a green economy, and reconnect people with nature. It highlights the importance of natural capital, sustainable development, and international cooperation. The document also stresses the need for better access for better access to nature, education, and voluntary action to ensure long-term environmental health.	Biodiversity
The Wildlife and Countryside Act 1981 (as amended)	The act is the primary legislation in the UK for the protection of wildlife and habitats. It provides comprehensive protection for wild birds, their nests, and eggs, making it illegal to intentionally harm them. Furthermore, the Act also safeguards other animals and plants, regulates the introduction of non-native species, and controls the sale of certain species. Additionally, the act designates Sites of Special Scientific Interest (SSSIs) to conserve important habitats.	Biodiversity
Environment Protection Act 1990	The act is a key UK legislation that establishes the framework for waste management and pollution control. It covers the regulation of waste disposal, emissions, and statutory nuisances. The Act mandates businesses to manage waste responsibly, requiring licenses for waste treatment and disposal. It also addresses litter control, genetically modified organisms, and nature conservation. The Act aims to protect human health and the environment by enforcing strict penalties for non-compliance.	Biodiversity
The Natural Environment and Communities Act 2006 (NERC Act)	The Act is primarily intended to implement key aspects of the Government's Rural Strategy 2004 and addresses a wider range of issues relating broadly to the natural environment. The Act also established Natural England, responsible for conserving, enhancing and managing England's natural environment sustainably. The act also established the Commission for Rural Communities, which acts as an independent advocate and expert adviser for rural England, in particular people suffering from social disadvantage and areas suffering from poor economic performance. Furthermore, the Act provision in respect of biodiversity, pesticides harmful to wildlife and the protection of birds, and in respect of invasive non-native species. It alters enforcement powers in connection with wildlife protection and extends time limits for prosecuting certain wildlife offences. It addresses a small number of gaps and uncertainties which have been identified in relation to the law on sites of special scientific interest. And it amends the functions and constitution of National Park authorities, the functions of the Broads Authority and the law on rights of way.	Cross cutting
Creating a better place: Our ambition to 2020, Environment Agency (2018)	The government's 25 Year Environment Plan sets out a comprehensive long-term approach to protecting and enhancing the environment. Its overall aims are to create a better place for people and wildlife and protect the environment and promote sustainable development. The report outlines metrics that will show if the if the ambitions are being met.	Biodiversity

UK National Ecosystem Assessment Follow-on (2014)	The report builds on the initial 2011 assessment, aiming to deepen understanding of the economic and social value of nature. It focuses on developing tools to operationalize the Ecosystem Approach and supports the inclusion of natural capital in the UK's National Accounts. The follow-on phase includes detailed studies on ecosystem services, their contributions to the economy, and the implications of changes in these services. It emphasizes the importance of integrating ecosystem services into policy and decision-making processes.	Biodiversity
National Infrastructure Delivery Plan 2016–2021	The National Infrastructure Delivery Plan brings the government's plans for infrastructure from 2016 to 2021 supporting the delivery of housing and social infrastructure reflected by the governments and private sectors commitment to investment in infrastructure. The investment will drive wider economic benefits including: ▪ supporting growth and creating jobs in the short term as projects are built – especially where public investment is used to attract private investment ▪ raising the productive capacity of the economy in the long term as the benefits of new infrastructure are felt; reduced transaction costs; larger and more integrated labour and product markets; and better opportunities to collaborate and innovate ▪ driving efficiency – enabling greater specialisation and economies of scale ▪ boosting international competitiveness – attracting inward investment and enabling trade with foreign partners	Cross cutting
Fixing the foundations: Creating a more prosperous nation (2015)	The Plan is a productivity plan by the UK government aimed at boosting long-term economic growth. The plan is structured around two main pillars: encouraging long-term investment and promoting a dynamic economy. The plan is aimed to be delivered through these methods: ▪ An even more competitive tax system, bringing business and investment to Britain ▪ Rewards for saving and long-term investment ▪ A highly skilled workforce, with employers in the driving seat ▪ World-leading universities, open to all who can benefit ▪ A modern transport system, with a secure future ▪ Reliable and low-carbon energy, at a price we can afford ▪ World-class digital infrastructure in every part of the UK ▪ High-quality science and innovation, spreading fast ▪ Planning freedoms and more houses to buy	Cross cutting

	▪ A higher pay, lower welfare society ▪ More people with a chance to work and progress ▪ Financial services that lead the world in investing for growth ▪ Open and competitive markets with the minimum of regulation ▪ A trading nation, open to international investment ▪ Resurgent cities, a rebalanced economy and a thriving Northern Powerhouse	
Environmental Assessment of Plans and Programmes Regulations 2004	The regulations implement the EU Directive 2001/42/EC, requiring an environmental assessment for certain plans and programmes that could significantly affect the environment. The regulations aim to integrate environmental considerations into the preparation and adoption of plans and programmes to promote sustainable development. Key provisions include: ▪ Scope and Application: The regulations apply to plans and programmes prepared by public authorities that set the framework for future development consent of projects listed in the EIA Directive. ▪ Environmental Report: Authorities must prepare an environmental report identifying, describing, and evaluating the likely significant effects on the environment of implementing the plan or programme. ▪ Consultation: The regulations mandate consultation with the public, environmental authorities, and other relevant stakeholders during the preparation of the plan or programme and the environmental report. ▪ Monitoring: Once a plan or programme is adopted, its significant environmental effects must be monitored to identify unforeseen adverse effects and undertake appropriate remedial action. ▪ Decision Making: The environmental report and consultation feedback must be considered before the adoption of the plan or programme. These regulations ensure that environmental impacts are systematically assessed and considered in the planning process, promoting more informed and sustainable decisions	Biodiversity
Climate Change and the Historic Environment, English Heritage (2008)	The report addresses the impacts of climate change on the UK's historic environment. It highlights the urgent need to reduce greenhouse gas emissions and adapt historic assets to withstand changing climate conditions. The report outlines the potential adverse effects of climate change, such as increased flooding, coastal erosion, and extreme weather events, on historic buildings, sites, and landscapes. Furthermore, the report emphasises the importance of collaboration between the heritage sector and other stakeholders to protect and preserve the historic environment for future generations.	Cross cutting

Strategic Environmental Assessment, Sustainability Appraisal and the Historic Environment, (2016)	Provides guidance on incorporating historic environment consideration into the Sustainability Appraisal and Strategic Environmental Assessment processes. Ensures that plans and programmes account for the potential impacts on heritage assets and their settings. The guidance emphasizes the importance of integrating heritage considerations to promote sustainable development and protect cultural heritage.	Cross cutting
The Setting of Heritage Assets, Historic Environment Good Practice Advice in Planning 3, (2017)	The document sets out guidance, against the background of the National Planning Policy Framework (NPPF) and the related guidance given in the Planning Practice Guide (PPG), on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes. It gives general advice on understanding setting, and how it may contribute to the significance of heritage assets and allow that significance to be appreciated, as well as advice on how views contribute to setting. The suggested staged approach to taking decisions on setting can also be used to assess the contribution of views to the significance of heritage assets. The guidance has been written for local planning authorities and those proposing change to heritage assets.	Cultural Heritage
Ancient Woodland and Veteran Trees: Protecting them from development, (2014)	It provides guidance on safeguarding ancient woodlands and veteran trees from development impacts. It emphasises the nature of these habitats and their importance for biodiversity, carbon storage and cultural heritage. the document outlines measures to avoid, mitigate, and compensate for any adverse effects of development, including the creation of buffer zones. It also stresses the need for early consultation with relevant authorities to ensure effective protection.	Biodiversity
Our Waste, Our Resources: A Strategy for England (2018)	The strategy sets out how the government plans to preserve their stock of material resources by minimising waste, promoting resource efficiency and the move toward a circular economy while minimising the damage caused the natural environment. It gives short term goals, including eliminating all avoidable waste by 2050. There are a number of chapters detailing how these targets will be met: ▪ Sustainable production ▪ Helping consumers take more considered action ▪ Recovering resources and managing waste ▪ Tackling waste crime ▪ Cutting down on food waste	Cross cutting

Preparing for a drier future: England's water infrastructure needs (2018)	The report describes how England is at risk of water shortages and climate change, increasing population and the need to protect the environment bring increased challenges. It sets out the National Infrastructure Commission's advice on how to address England's water supply challenges and deliver the appropriate level of resilience for the long term. The Commission's central finding is that government should ensure increased drought resilience in England by enhancing the capacity of the water supply system. This will require a twin-track approach combining demand management (including leakage reduction) with long-term investment in supply infrastructure. To achieve this, the Commission recommends that government ensure plans are in place to deliver additional supply and demand reduction of at least 4,000 million litres per day (Ml/day).	Water
Water for Life White Paper, Defra (2011)	The Water for Life White Paper details the UK government's strategy for ensuring a sustainable water resource future for people, business, and the environment. It emphasises the need for: ▪ resilient water resources ▪ protection of rivers ▪ planning and building for the future ▪ developing a customer focused water industry ▪ taking action through improving efficiency of water resources use	Water
Protect groundwater and prevent groundwater pollution, Environment Agency (2017)	Protect groundwater and prevent groundwater pollution document provides guidance on safeguarding groundwater from pollution. The guidance gives: ▪ A full definition for groundwater ▪ Information on preventing groundwater pollution and preventing hazardous / non-hazardous substances from entering groundwater. ▪ The importance of considering the characteristics of the geological location ▪ An outlook on groundwater vulnerability and restrictions within groundwater sensitive location. ▪ Details on saline intrusion The document stresses the need for early consultation with the Environment Agency to understand local geological characteristics and water availability, ensuring sustainable groundwater management	Cross cutting
Groundwater protection technical guidance, Environment Agency (2017)	The Groundwater protection technical guidance provides detailed instructions for protecting groundwater from pollutions. It covers direct inputs, discernibility of hazardous substances, and criteria for determining	Cross cutting

	permanently unsuitable geological formations. It includes measures for preventing pollution, monitoring groundwater quality, and ensuring compliance with environmental regulations.	
The Environment Agency's approach to groundwater protection, Environment Agency (2018)	Provides an update to the previous strategy; Protect groundwater and prevent groundwater pollution. The new strategy provides methods for managing and safeguarding groundwater resources in England and includes position statements that detail the agency's risk-based approach to groundwater management. Key aspects include: ▪ Pollution Prevention: Implementing measures to prevent hazardous substances and non-hazardous pollutants from entering groundwater ▪ Regulation and Permitting: Requiring environmental permits for activities that may compromise groundwater quality ▪ Monitoring and Compliance: Regularly monitoring groundwater quality and ensuring compliance with regulations ▪ Sustainable Management: Promoting sustainable abstraction practices to protect groundwater as a long-term resource The guidance aims to provide clarity and consistency in decision-making, ensuring the protection and enhancement of groundwater for future generations	
Understanding the risks, empowering communities, building resilience: The National Flood and Coastal Erosion Risk Management Strategy for England (2014)	This strategy builds on existing approaches to flood and coastal risk management and promotes the use of a wide range of measures to manage risk. It outlines how risk should be managed within catchments and along the coast and balance the needs of communities, the economy and the environment. The strategy considers: ▪ How the current risk of flooding and coastal erosion may change; ▪ the measures that can be used to manage these risks; ▪ the functions of those involved in flood and coastal erosion risk management and how these organisations can work together better; ▪ how work will be paid for and the costs and benefits of the measures used; ▪ the guidance and advice available to help manage flood risk and coastal erosion.	Cross cutting
National Flood and Coastal Erosion Risk Management Strategy for England (2020)	The National Flood and Coastal Erosion Risk Management Strategy for England seeks to better manage the risks and consequences of flooding from rivers, the sea, groundwater, reservoirs, ordinary watercourses, surface water and sewers and coastal erosion. It outlines the progress towards a nation resilient to flooding and coastal change from the original National Flood and Coastal Erosion Riks Management strategy published in 2011.	Cross cutting

	▪ The new strategies long term vision is 'a nation ready for, and resilient to, flooding and coastal; change – today, tomorrow and to the year 2100'. There are three long term ambitions: ▪ Climate resilient places: working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change ▪ Today's growth and infrastructure resilient in tomorrow's climate: making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as infrastructure resilient to flooding and coastal change ▪ A nation ready to respond and adapt to flooding and coastal change: ensuring local people understand their risk to flooding and coastal change, and know their responsibilities and how to take action	
The Water Resources Management Plan Regulations 2007	The Water Resources Management Plan Regulations 2007 require water undertakers in England and Wales to prepare, publish, and maintain water resources management plans. These plans must outline how they will ensure a secure and sustainable water supply while balancing environmental needs. The regulations mandate public consultation on draft plans and allow for inquiries or hearings if necessary. They aim to promote transparency and stakeholder engagement in water resource planning, ensuring that water companies consider both current and future water demands.	Water
Water Resources Planning Framework (2015-2065), Water UK (2016)	The primary aim of the project is to develop a high-level strategy and framework for the long-term planning of water resources fir Public Water Supply in England and Wales. It details some key questions the project is aiming to address, explores challenges faced in balancing future supplies against future demands, sets out long term planning framework, provides a summary of the evaluation techniques that were used and sets out and summarises analysis about the problem in terms of resources availability under different drought conditions.	Water
Water Supply (Water Quality) Regulations 2016 (as amended)	The instrument replaces the Water Supply (Water Quality) Regulations 2000 (as amended) provides the legislative framework for drinking water quality in England in respect of public supplies provided by water companies and licensed water suppliers. This is water intended for human consumption including cooking, drinking, food preparation and other domestic purposes as well as water used in food production undertakings. The regulations cover various aspects, including the delineation of water supply zones, monitoring of water supplies, and overall water quality. They also mandate regular sampling and analysis of water at different points, such as treatment works and reservoirs, to ensure compliance with water quality standards. Furthermore, the regulations include provisions for investigating water quality issues, authorising temporary departures from standards and taking remedial action.	Water

National Policy Statement for Wastewater (2012)	This NPS sets out government policy for the provision of major waste water infrastructure and will be used by the decisions maker as the primary basis for deciding development consent application for waste water developments that are classed as Nationally Significant Infrastructure Projects (NSIP). The Planning Act 2008 empowers the examination of applications and subsequent decisions on the following waste water NSIPs in England: ▪ construction of waste water treatment plants which are expected to have a capacity exceeding a population equivalent of 500,000 when constructed; or ▪ alterations to waste water treatment plants where the effect of the alteration is expected to be to increase by more than a population equivalent of 500,000 the capacity of the plant.	Water
Climate change approaches in water resources planning – Overview of new methods (2013)	The aim of the project was to examine how climate change has been built into water resource management plans (WRMPs) to date, and to recommend best and appropriate practice for the future. The report examines how climate change has been integrated into water resource management plans (WRMPs). It highlights the use of advanced tools and probabilistic climate data, such as UKCP09, to aid planning for climate change. The report recommends best practices for assessing climate change impacts on water resources, including vulnerability assessments and adaptive management frameworks. It emphasises the importance of flexible methodologies to address uncertainties and improve the robustness and functionality of WRMPs.	Water
Future Water: the Government's water strategy for England, Defra (2008)	The Future Water strategy is a framework for sustainable water management in England. It aims to ensure secure water supplies, improve water quality, and protect the water environment. It is laid out in a number of chapters covering different water issues: ▪ Water demand ▪ Water supply ▪ Water quality in the natural environment ▪ Surface water drainage ▪ River and coastal flooding ▪ Greenhouse gas emissions ▪ Charging for water	Water
Water Resources Planning Guideline, Environment Agency (2016)	The Water Resources Planning Guideline by the Environment Agency (2016) provides a technical framework for water companies to develop and present their Water Resources Management Plans (WRMPs). It outlines the process for ensuring a secure and sustainable water supply, including legal requirements, pre-consultation, drafting, publishing, and maintaining WRMPs. The guideline emphasises the importance of	Water

	integrating WRMPs with other plans such as drought plans, river basin management plans, and the Water Framework Directive. It also highlights the roles and responsibilities of regulators like the Environment Agency and Ofwat. The document aims to improve water quality, manage water resources effectively, and protect the environment while addressing the impacts of climate change.	
Managing Water Abstraction, Environment Agency (2016)	The Managing Water Abstraction guideline outlines strategies to ensure sustainable water abstraction, protecting both water resources and the environment. It emphasizes the importance of maintaining ecological balance in rivers, wetlands, and aquifers by regulating water abstraction levels. The guideline integrates the Environmental Flow Indicator (EFI) to assess the impact of abstraction on river habitats. It also addresses the need for resilience against climate change and drought, aiming to safeguard water supplies for public, agricultural, and industrial use.	Water
Marine Plans – South East Inshore, South Inshore, South Offshore (Marine Management Organisation)	The South East Inshore Marine plan was created to provide a policy framework which will be used to help inform decision-making on what activities take place in the marine environment and how the marine environment is developed, protected and improved in the next 20 years. The South Marine Plan will help ensure that the right activities happen in the right place and in the right way within the marine environment. It provides a framework that will shape and inform decisions over how the areas' waters are developed, protected and improved over the next 20 years.	Water
UK Marine Policy Statement (2011)	The Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby: ▪ Promote sustainable economic development; ▪ Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects; ▪ Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and ▪ Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues	Water
Complying with the biodiversity duty Guidance 2023	This guidance helps a public authority understand what the biodiversity duty is and how to comply with it. The biodiversity duty is introduced through the Environment Act 2021.	Biodiversity

Water industry strategic environmental requirements (WISER)	The water industry strategic environmental requirements (WISER) sets out: ▪ issues and opportunities water companies should consider in meeting their environmental obligations ▪ how water companies should step up their level of ambition WISER describes the statutory and non-statutory expectations of water companies for price review 2024 (PR24) and expected practice. These are organised around the 3 objectives the Environment Agency and Natural England expect water companies to achieve: ▪ a thriving natural environment ▪ resilience for the environment and customers ▪ expected performance and compliance	Cross-cutting
JNCC Common Standards Monitoring guidance	Subsequent to the decision to implement the monitoring programme for designated nature conservation sites in 1999 and report on the condition of the whole site series in 2005, the country nature conservation bodies decided that guidance on setting and assessing conservation objectives was needed to assist staff in undertaking site monitoring and assessment. JNCC and the country nature conservation bodies commenced a programme to develop such guidance across the range of species, habitat and Earth science features which occur on UK protected sites. This process was largely completed in 2005, but some updating of individual guidance documents may take place.	Cross-cutting
REGIONAL / LOCAL		
The Portsmouth Plan (The Portsmouth Core Strategy) (adopted January 2012)	The Portsmouth Plan is Portsmouth's Core Strategy. The Plan is designed to: ▪ Set out a vision and objectives for the development of Portsmouth up to 2027; Identify broad locations for development, protection or change and allocate strategic sites; ▪ Set clear policies that guide decisions on planning applications; ▪ Indicate how the plan will be implemented; and ▪ Show how progress will be monitored	Cross-cutting
Draft Portsmouth Local Plan (September 2021)	The Portsmouth local Plan is a framework for delivering the aspirations and development needs of the city over a 15-year period. The Local Plan will seek to guide the sustainable development of Portsmouth and address social, economic and environmental issues through decisions on the built environment and land use. The Plan sets out key objectives, as follows;	Cross-cutting

	▪ A healthy and happy city: The Local Plan will support the optimal health and wellbeing of residents through delivering high quality place making, including access to local green space, employment opportunities and cleaner air. ▪ A city rich in culture and creativity: The Local Plan will protect and enhance its world-class historic assets and tourism attractions and provide the foundations for a thriving arts and cultural scene. ▪ A city with a thriving economy and lifelong learning: The Local Plan will enable a strong and diverse economy that raises the quality of life and access to education and training opportunities for all. ▪ A green city: The Local Plan will protect and enhance biodiversity, open space and green infrastructure coverage, and promote sustainable transport networks. It will seek to improve air quality and mitigate and adapt to the likely impacts of climate change by directing development to the most sustainable locations and requiring high quality sustainable design. ▪ A city with easy travel: The Local Plan will help to deliver sustainable transport and infrastructure network by ensuring new development prioritises walking, cycling and public transport.	
Portsmouth City Local Plan (2006)	The Portsmouth City Local Plan 2001-2011 has been prepared as the local development plan covering the whole of the Portsmouth City Council administrative area, under the provisions of the Town and Country Planning Act 1990. Its purposes are: ▪ To develop the strategic policies of the Hampshire County Structure Plan ▪ To make proposals for the development and use of land and to allocate land for specific uses to meet current and future needs; and ▪ To provide a consistent basis to guide development control decisions The following city wide issues were identified: ▪ Improve Transport ▪ Improve Environment/Quality of Life ▪ Leisure and Recreation ▪ Jobs and the Economy ▪ Build New Homes ▪ Improve Shopping	Cross-cutting
Somerstown and North Southsea Area Action Plan (2012)	The Somerstown and north Southsea area action plan was adopted on 17 July 2012. The plan's purpose is to:	Cross-cutting

	▪ Outline a vision for managed change to the physical structure and layout of area which is informed by the priorities identified by residents and other stakeholders ▪ Ensure that the area is not subject to 'ad hoc' and piecemeal development that conflicts with these priorities ▪ Set out development proposals that will deliver the comprehensive restructuring of the area and act as a catalyst for regeneration ▪ Provide the basis for future land assembly including compulsory purchase order (CPO) powers Its main objectives are to create: ▪ easier and safer movement through the area ▪ more choice of housing, including a mix of tenure ▪ better community facilities including health, youth and community buildings ▪ good quality open spaces including play areas	
Southsea Area Action Plan (2007)	Southsea forms part of our three-centre retail strategy, which also focuses on the city centre and Gunwharf Quays. The aim is to promote the city as a retail destination with three different shopping experiences, highlighting the individual role of the three destinations and what they each offer. This area action plan has been prepared to address the decrease in footfall that Southsea has experienced in recent years and the likely impact that significant retail proposals in the city centre will have on Southsea. It sets a vision for the town centre's future role and sets policies to guide its development	Cross-cutting
East Hampshire Adopted Local Plan / Joint Core Strategy (2014)	The purpose of the Local Plan: Joint Core Strategy is to provide a policy framework that plans for new development to deliver the vision that has been developed alongside the Sustainable Community Strategy. By 2028, East Hampshire will be a better place where people live, work and build businesses in safe, attractive and prosperous towns and villages.	Cross-cutting
East Hampshire Emerging Local Plan	East Hampshire District Council ("the Local Planning Authority") is reviewing its Local Plan. This will provide a policy framework for planning and development for the areas of the district where the council is the Local Planning Authority. For more than half of the district, the local planning authority is the South Downs National Park Authority. The SDNPA has therefore prepared a Local Plan that will cover the parts of the district that lie within its area. The SDNPA Local Plan is at a more advanced stage than the East Hampshire Local Plan and was examined in late 2018. The Local Plan review: ▪ sets out a long-term vision and objectives;	Cross-cutting

	▪ provides a strategy for growth, new homes, employment, facilities and infrastructure to meet the area's needs; and ▪ includes policies to manage change while protecting and enhancing the area's heritage and natural environment. The most important challenge facing the Plan is to deliver growth to meet local needs and to consider any needs that cannot be met in adjoining areas, in particular the SDNP. The aim is to maintain and reinforce our communities sense of place while, wherever possible, enhancing the area's character, environment and heritage.	
Fareham Local Plan 2037 (Adopted April 2023)	The Fareham Local Plan 2037: ▪ Sets the strategic planning policies for the Borough, taking account of key factors such as population and economic growth, climate change and environmental character; ▪ Sets the general scale and distribution of new development which is required to meet Fareham's needs to 2037 and contributes to local unmet need in accordance with duty to cooperate requirements; ▪ Provides the planning principles, including detailed development management policies to guide decisions on planning applications; ▪ Identifies where new residential and economic development will be located through allocations of land; and ▪ Identifies key environmental designations and includes specific proposals for the conservation and enhancement of natural and historic landscapes and assets	Cross-cutting
Fareham Borough local Plan Part 1 (Core Strategy)	The Core Strategy sets out the key elements of the planning framework for the Borough. It includes policies for areas and issues requiring development or protection and sets the principles for strategic sites. The Core Strategy was adopted on 4th August 2011. The following key issues for the Borough have been identified in the Core Strategy: ▪ Accommodating Growth in light of the Recession ▪ Transport (congestion around motorway junctions and links as well as along the A27 and A32. ▪ Demographic Change (increasing elderly population) ▪ The Natural and Built Environment (including protection of the more vulnerable open spaces in the Borough). ▪ Climate Change	Cross-cutting

Fareham Borough Local Plan Part 2 (Development Sites and Policies)	The Development Sites & Policies Plan allocates sites and land for housing, retail, economic development, leisure, recreation and community uses, whilst also recommending areas for protection such as green spaces and conservation areas. The plan also sets out a vision for the future of Fareham Town Centre and sets out a number of policies which influence the way land is developed around the Borough and helps guide decisions on planning applications. The Development Sites and Policies Plan was adopted on 8th June 2015. The purpose of the Development Sites and Policies Plan is threefold: 1. Allocate sites for housing, employment and retail and other community facilities as necessary; 2. Review and designate areas in the Borough such as settlement boundaries and strategic gaps; 3. Set out Development Management policies by topic areas including Design and Town Centre Uses.	Cross-cutting
Fareham Borough Local Plan Part 3 (The Welbourne Plan)	The Welborne Plan is a planning document which sets out how the broad type, location, amount and character of the development at Welborne and will guide the Council in our decision-making on future planning applications for the site. The Welborne Plan was adopted on 8th June 2015. The Welborne Plan is a site-specific plan which sets out how the new community of Welborne, to the north of the M27 Motorway at Fareham, should take shape over the period to 2036. The Welborne Plan forms part of the Council's statutory Development Plan. This plan should be read and interpreted as a whole and alongside the other parts of Fareham's Development Plan. The Welborne Plan identifies four objectives, as follows; ▪ To comprise deliverable and viable development that will support a diverse balanced, integrated and interacting community ▪ To respond positively to its distinctive and diverse landscape setting and surrounding countryside ▪ To be distinct from other settlements, but connected to them physically and functionally ▪ The principles of sustainability will be embedded in every aspect of Welborne	Cross-cutting
Gosport Borough Local Plan 2038	The Draft Gosport Borough Local Plan 2038 identifies sites for housing, employment and other land uses as well protecting the Borough's important open space, nature conservation and heritage features. It also considers ways in which we adapt and deal with the impacts of climate change. Once adopted the new Local Plan will be used for determining future planning applications. It will cover the period to 2038. Key issues identified in the Plan include: ▪ The Borough needs to adapt to, and mitigate the impacts of climate change and contribute to the national requirement of net zero carbon by 2050.	Cross-cutting

	▪ Growth is constrained by the peninsula location and amount of land in active military use. Large areas, previously used by the MoD, require significant investment and are more complex to redevelop. ▪ The Borough has the lowest number of jobs for its population out of all its neighbours in the Solent, falling significantly below the South East and UK averages. This results in high levels of out-commuting by private car and significant traffic congestion. ▪ A substantial number of new homes are required. Housing can be too expensive for residents; these new homes need to suit their requirements and be designed to a high standard. ▪ New development and existing communities need the infrastructure required to make sure the people who live and work in the Borough can enjoy their lives. ▪ The natural environment and diverse range of habitats and species need protection from the pressures of new development as well as biodiversity enhancements so they can continue to be enjoyed by all. ▪	
Havant Adopted Local Plan (Core Strategy 2011 and Site Allocation Plan 2014)	The Core Strategy vision will be delivered through the Core Strategy policies that are set out under the themes listed below; these broadly follow the key priorities of the Sustainable Community Strategy, Forward Together: ▪ Health and Wellbeing ▪ Promoting Havant Borough's Economy ▪ Regeneration and Community Support ▪ Community Safety ▪ Housing ▪ Caring for Our Borough ▪ Infrastructure, Implementation and Monitoring The main aim of the Allocations Plan is to allocate land to help deliver from 2013-2026 the development requirements for housing and employment set out in the Core Strategy. It also replaces the remaining saved policies for the Havant Borough District-Wide Local Plan and includes a number of policies in addition to those in the Core Strategy	Cross-cutting
Havant Borough Building a Better Future Plan (emerging)	The Council was working on a new local plan to replace the Core Strategy and Allocations plan. This went through multiple stages of consultation, but an independent inspector raised a number of concerns, leading to the plan being withdrawn in 2021. The Council are now working on a new Local Plan **"**Building a Better Future Plan" (emerging) but the adopted plan will be in effect until it's adoption. It will comprise:	Cross-cutting

	▪ The Building a Better Future Plan; ▪ The Emsworth Neighbourhood Plan (2021); and ▪ The Hampshire Minerals and Waste Plan2 (2013). The Building a Better Future Plan will address the needs and opportunities for development in the Borough, and set out how much, what type and where development will take place. Critically, the plan also sets out the infrastructure which will be needed to support the Local Plan and the environmental safeguards that will be put in place. The Building a Better Future Draft Local Plan 2024 is to be submitted for consultation in May 2025.	
Winchester Development Plan (Joint Core Strategy) (March 2013)	A series of strategic objectives which will provide the link between the Community Strategy and the Winchester District Local Plan Part 1 – Joint Core Strategy are recorded, as follows: The District should retain the distinctive characteristics of the three key areas so as to maximise opportunities to address change in a positive way that ensures it remains an attractive place to live, visit, work and do business:- ▪ the County Town of Winchester needs to meet its housing and community requirements and to diversify its economy through the promotion of the knowledge, tourism, creative and education sectors, whilst respecting the highly valued features and setting of the Town; ▪ areas at Waterlooville and Whiteley on the southern fringes of the District need to provide homes, jobs, physical and social infrastructure whilst creating a strong sense of community identity and protecting nearby environmentally sensitive sites, to create extended communities in this part of South Hampshire; ▪ the market towns and many villages that fall within the rural area are to remain viable settlements offering where possible a range of local services and facilities, and be allowed to grow to respond to local needs, whilst retaining their individual identity and rural character. Development in those settlements that lie in the South Downs National Park should respect its purposes”.	Cross-cutting
Winchester District Local Plan (2018-2039) (Adopted 2018)	The proposed ‘Sustainable Development Objectives’ are classified as environment, economic or social objectives as together these underpin ‘sustainable development’. Carbon Neutrality is a fundamental overarching objective with which the other sustainable development objectives must align. The nine key areas of focus are: ▪ Biodiversity and the natural environment ▪ Homes for all ▪ Conserving and enhancing the historic environment	Cross-cutting

	▪ Promoting sustainable transport and active travel ▪ Creating a vibrant economy ▪ Living well ▪ Low carbon infrastructure and local plan viability ▪ Delivery and success of the local plan ▪ Carbon Neutrality	
Winchester District Local Plan (2020-2040) (emerging)	The Local Plan was submitted to the Secretary of State for independent examination in November 2024.. It revises the current Local Plan with a range of new evidence. The vision will be delivered by the application of the spatial objectives and policies across the plan area. These collectively will ensure that proper consideration is given to the impact of development on the environment, economy and society to achieve sustainable development. The objectives have been developed from the previous adopted Plan, taking into account the revised vision set out above and relevant themes in the Council Plan.	Cross-cutting
Arun Local Plan (2011-2031) (Adopted 2018)	The Plans vision is that 'By 2031 Arun will be a safer, more inclusive, vibrant and attractive place to live, work and visit. Arun's residents will be healthier and better educated, with reduced inequalities between the most and least affluent'. Its Strategic Objectives are: ▪ To strengthen Arun's economic base and provide local job opportunities by increasing, diversifying and improving the quality of employment within the District through the provision of appropriate employment sites, better infrastructure including road access, quality affordable accommodation and the development of business support and partnerships; ▪ To reduce the need to travel and promote sustainable forms of transport; ▪ To plan for climate change; to work in harmony with the environment to conserve natural resources and increase biodiversity; ▪ To plan and deliver a range of housing mix and types in locations with good access to employment, services and facilities to meet the District's housing requirements and the needs of Arun's residents and communities both urban and rural, ensuring that issues of affordability and the provision of appropriate levels of affordable housing are addressed while supporting the creation of integrated communities; ▪ To protect and enhance Arun's outstanding landscape, countryside, coastline, historic, built and archaeological environment, as well as the setting of the South Downs National Park, thereby reinforcing local character and identity;	Cross-cutting

	▪ To create vibrant, attractive, safe and accessible towns and villages that build upon their unique characters to provide a wide range of uses and which are a focus for quality shopping, entertainment, leisure, tourism and cultural activities; and ▪ To promote strong, well integrated and cohesive communities, through the promotion of healthy lifestyles, provision of good quality accessible community facilities and a safe environment, which delivers an enhanced quality of life to all. This includes meeting the needs of a growing elderly population.	
Chichester Local Plan (2021-2039) (Adopted 2025)	The vision of the Plan is that by 2039, the Chichester plan area will be a place where people can: ▪ Be confident that new development will be designed and located to mitigate and withstand climate change, taking account of factors such as sea level rise, high summer temperatures, water scarcity and the need to reduce greenhouse emissions from homes, businesses and travel; ▪ Follow a socially and environmentally friendly way of life, reducing the contribution to climate change; ▪ Know that the special natural environment and biodiversity of the area, including Chichester and Pagham Harbours, Medmerry Compensatory Habitat, and the strategic wildlife corridors and nature recovery networks are fully protected, managed and enhanced; ▪ Choose from a variety of well designed, energy and water efficient low carbon homes to suit their incomes, needs, lifestyle and stage of life, in accessible locations close to existing or new services, meeting the needs of young people, families and older people; ▪ Get about easily, safely and conveniently with less reliance on private cars –making use of the rail and bus network, and with more opportunities for active travel including walking and cycling; ▪ Choose from a range of work opportunities to meet their aspirations for employment or use their entrepreneurial flair to start and grow their own creative, innovative and competitive business, moving towards a greener economy. Thriving sectors will include food and drink production and creative and low carbon industries supported by Chichester's natural and cultural assets, high tech manufacturing, as well as service and retail sectors needed to support the local and visitor population, including a night time economy attractive to all and improving the offer for young people and students; ▪ Pursue a healthy lifestyle, benefitting from a sense of well-being supported by good access to health, leisure, open space and nature, sports and other essential facilities; ▪ Learn new skills, with good access to education including colleges and Chichester University; ▪ Enjoy a vibrant historic city, thriving towns and villages and areas of attractive, accessible and unspoilt harbours, coast and countryside;	Cross-cutting

	▪ Enjoy a high quality of life, enriched through opportunities to enjoy our local culture, arts, music and a conserved and enhanced heritage; ▪ Live in sustainable neighbourhoods supported by necessary infrastructure and facilities, designed with natural processes to prevent storm flooding and enhance biodiversity; ▪ Feel safe and secure; ▪ Take advantage of new communication and information technologies; and ▪ Feel a sense of community and empowered to help shape its future	
South Downs Local Plan (2014-2033) (Adopted July 2019)	The Plan objectives are: 1. To conserve and enhance the landscapes of the National Park 2. To conserve and enhance the cultural heritage of the National Park 3. To conserve and enhance large areas of high-quality and well-managed habitat to form a network supporting wildlife throughout the landscape 4. To achieve a sustainable use of ecosystem services thus enhancing natural capital across the landscapes of the National Park and contributing to wealth and human health and wellbeing 5. To protect and provide opportunities for everyone to discover, enjoy, understand and value the National Park and its special qualities 6. To adapt well to and mitigate against the impacts of climate change and other pressures 7. To conserve and enhance the villages and market towns of the National Park as thriving centres for residents, visitors and businesses 8. To protect and provide for the social and economic wellbeing of National Park communities supporting local jobs, affordable homes and local facilities 9. To protect and provide for local businesses including farming, forestry and tourism that are broadly compatible with and relate to the landscapes and special qualities of the National Park	Cross-cutting
Site Improvement Plans for Natura 2000 sites, Natural England (2015)	Site Improvement Plans (SIPs) have been developed for each Natura 2000 (Special Protected Areas and Special Conservation Areas) site in England. The plans provide an overview of both the current and predicted issues affecting the condition of the site features and sets priority measures required to improve the condition.	Cross-cutting
South East River Basin District – River Basin Management Plan (December 2015)	The South East river basin district covers over 10,200km2 and extends from Hampshire in the west to Kent in the east, including East and West Sussex, the Isle of Wight and parts of Wiltshire and Surrey. The South East	Water

	river basin district has a rich diversity of wildlife and habitats, supporting many species of global and national importance. The most recent update took place in 2018.	
Joint Strategic Flood Risk Assessment (Partnership for Urban South Hampshire) (2016)	The primary objective of the revised PUSH SFRA is to inform and provide an evidence base for the: ▪ preparation and evidence for the evolving PUSH South Hampshire Strategy to 2036 ▪ emerging Local Plans in respect of the development and of policies for the allocation of land for future development. ▪ review of policies related to flood risk management for all Risk Management Authorities ▪ The aims and objectives or purpose of this SFRA update is to ▪ provide information on the changes to planning, policy and guidance since the previous SFRA; ▪ provide a detailed assessment of the flood hazard within the Flood Zones; ▪ provide information on existing defences and flood risk management measures where these exist; ▪ provide the evidence base to allow a sequential approach to site allocation to be undertaken within a flood zone; and ▪ support the development of partner authorities' policies and practices required to ensure that development in Flood Zones 2 and 3 satisfies the requirements of the Exception Test set out in the NPPF and NPPG.	Water
Portsmouth Local Flood Risk Management Strategy (2015)	The strategy aims to locally manage flood risk for the people, economy and environment of Portsmouth by working in partnership to identify and deliver feasible and timely actions. Its Strategic objectives include: 1. We seek to improve the knowledge and understanding of all sources of flood risk across Portsmouth 2. Identify and work in partnership with other authorities, stakeholders and the community who have a role in flood risk management. 3. Increase public awareness of all flood risk across Portsmouth. 4. Ensure that planning decisions are properly informed by flooding issues, by avoiding development at inappropriate locations and reducing flood risk wherever possible. 5. Maintain, and improve where necessary and affordable, flood risk management infrastructure and systems to reduce flood risk. 6. Identify through an action plan, appropriate measures, and schemes to manage flood risks providing balanced community and environmental benefits, and establish who is responsible for delivery of these measures.	Water

	7. Compile a funding plan for schemes listed on the action plan 8. For identified schemes, demonstrate compliance with the EU Water Framework Directive through a Strategic Environmental Assessment and Habitats Regulations Assessment. 9. Detail all procedures in place to mitigate a flood event, including flood response and recovery	
Portsmouth Surface Water Management Plan (2019)	The objectives of this SWMP update are to: ▪ Update current understanding of flood risk in Portsmouth, based on current flood mapping data and ongoing research; ▪ Update and develop a proactive approach to the implementation of flood risk management solutions; ▪ Review and update the potential flood risk management solutions, identifying those which should be considered a priority; and ▪ Undertake engagement with the relevant departments within Portsmouth City Council, other Risk Management Authorises and key stakeholders to ensure a joined-up approach to flood risk management in Portsmouth	Water
South East Hampshire catchment Flood Management Plan (2009)	The area of the South East Hampshire CFMP has a population of approximately 460,000 covers 500 square kilometres and is drained by the River Hamble, River Meon, Wallington River, River Alver, West Brook and Hermitage and Lavant Streams. The main source of flood risk is from river flooding and to a lesser extent surface water flooding, groundwater flooding and highway flooding of drainage systems. At present over 2600 properties are at risk in the catchment in a 1% event (taking into account flood defences). This will increase to approximately 3,500 properties in the future. Major urban areas have developed next to the major watercourses, subsequently river structures and flood defences have also developed as an integral part of these towns. Existing defence infrastructure acts to defend the urban areas at risk and we are therefore looking for opportunities to revert the catchment back to its natural state.	Water
North Solent Shoreline Management Plan (2010)	The objectives of the SMP are: ▪ To define the coastal flooding and erosion risks to people and the developed, historic and natural environments ▪ To identify the preferred policies for managing those risks ▪ To identify the consequences of implementing the preferred policies ▪ To set out procedures for monitoring the effectiveness of the policies ▪ To inform others so future land use and coastal zone development can take account of the risks, the time frame of risks and the policies	Water

	▪ To comply with environmental legislation and social obligations	
Southsea Seafront Masterplan (Coastal defences)	The vision of the Masterplan is "The seafront's natural and historic assets will be protected, conserved, and enhanced. The seafront will be a beautiful, functional, sustainable and resilient place that is healthy, safe, enjoyable, and accessible to all." Its objectives are: 1. Protect and enhance the seafront's natural assets and achieve a net gain in biodiversity 2. Conserve and enhance the seafront's heritage assets 3. Ensure that new development at the seafront is of excellent design and enhances the seafront overall 4. Ensure that new development is functional and compatible with the overall functionality of the seafront 5. Ensure that new development is sustainable, mitigates climate change and is resilient to the effects of climate change 6. Ensure that new development maximises opportunities to improve people's health, wellbeing, and safety 7. Ensure that new development maximises opportunities to improve people's enjoyment of the seafront 8. Ensure that new development maximises opportunities to improve accessibility to all 9. Ensure that new development promotes active and sustainable travel 10. Ensure that new development, including alterations to roads, seek to minimise space allocated to motor vehicles, in order to better accommodate other travel modes as attractive alternatives	Water
The East Hampshire Catchment Partnership: Catchment Management Plan 2021-2027	This Catchment Management Plan provides an overview of the East Hampshire Catchment, outlines the main issue affecting the catchment's waters and sets out the objectives, targets and actions to deliver a range of coordinated and integrated improvements within the catchment. The Partnership's key roles in its pursuit of its objectives are to: ▪ Identify project opportunities. ▪ To set the priorities for the actions of the Partnership. ▪ Coordinate local projects and resources. ▪ Support local landowners with advice and guidance. ▪ Support local communities with advice, networking and fundraising ▪ Control the spread of harmful invasive species. ▪ Improve water quality and diversify riparian habitats. ▪ Assist in the monitoring of water quality. ▪ Raise awareness of local water issues.	Water

	▪ Champion best practice waterways management at a strategic planning level. ▪ Influence spatial planning policy to raise the standards of new development affecting the ▪ water environment	
Arun and Western Streams Catchment Flood Management Plan 2009	The river catchments of the Arun and Western Streams CFMP lie mainly in the West Sussex Districts which is largely rural and is home to approximately 300,000 people. The CFMP covers an area approximately 1400km2 drained by the River Arun and its tributary the Rother. The Arun and Western Streams CFMP has a history of fluvial, surface water, groundwater flooding and tidally influenced flooding.	Water
Strategic Flood Risk Assessment of Chichester District Council 2008	The SFRA will enable Chichester District Council to designate areas for development following the sequential test as required by National Planning Policy Statement 25: Development and Flood Risk (PPS25). The SFRA should provide the necessary information for planners to be able to take the strategic decisions that identify the amount of development that may be permitted, how the drainage of that development should function and how vulnerable areas should be protected or adapted. The main objective of the Chichester District SFRA is to provide flood information: ▪ so that an evidence based and risk based sequential approach can be adopted when making planning decisions, in line with PPS25; ▪ that is strategic, in that it covers a wide spatial area and looks at flood risk today and in the future; ▪ that supports sustainability appraisals of the local development frameworks; and ▪ that identifies what further investigations may be required in flood risk assessments for specific development proposals.	Water
Strategic Flood Risk Assessment 2007 – Winchester City Council	This report provides an overview of the methodology, assumptions, uncertainties, tasks undertaken and the links to the wider sustainability appraisal process. It provides policy recommendations and guidance for the application of the Sequential Test, the preparation of flood risk assessments and the use of sustainable drainage systems, within the City Council's administrative boundary.	Water
Strategic Flood Risk Assessment (Level 1) Gosport Borough (2016)	The document is structured in five parts setting out the following matters: a. A broad background of the Borough within the context of the Borough's planning profile and identifies key national planning policy objectives in respect of development and flood risk; b. An overview of the SFRA approach taken by the Council; c. Identification of the Regeneration Areas for development and works through the sequential test undertaken in respect of Flood Zones. This section also includes other residential allocations (excluding those already with a current outstanding planning permission);	Water

	d. An assessment of the potential flood risk issues for each of the proposed areas using the SFRA final report and mapping layers. This section identifies key flooding issues that will need to be addressed in more detailed through site specific Flood Risk Assessments (FRAs); and e. A broad overview of infrastructure needs (further details of these are contained in the Borough Council's Infrastructure Assessment and Delivery Report June 2014)	
Strategic Flood Risk Assessment – Fareham Borough Council (2021)	This document provides the evidence to show that flood risk has been fully taken into account in selecting sites for allocation in the Fareham Borough Local Plan 2037. It has been prepared to support the Regulation 19 Publication Plan.	Water
Strategic Flood Risk Assessment – East Hampshire District Council (2022)	The aim of this SFRA is to identify the spatial variation in flood risk across the Planning Authority Area from all sources, facilitating a district-wide comparison of future development sites with respect to flood risk considerations. The SFRA provides an overview of the risk of flooding from all sources across the Planning Authority Area, including flooding from rivers, surface water, groundwater, sewers and other artificial sources, and should be used to assist in the development of policy formulation, strategic planning, and application of the Sequential Test, development control and emergency planning.	Water
East Hampshire Abstraction Licensing Strategy, Environment Agency (March 2019)	This strategy sets out the approach to managing new and existing abstraction and impoundment within the East Hampshire catchment in the South East river basin district. It sets out the Water resource availability of the East Hampshire ALS, how abstraction is managed within it and the management of existing licenses	Water
Solent and South Downs Abstraction Licensing Strategy (CAMS process), Environment Agency, (map area 14)	The Environment Agency is responsible for managing water resources in England, making sure there is: ▪ enough water for people - public water supply, industry and agriculture ▪ a healthy environment The Environment Agency controls how much water is taken with a permitting system. The EA regulate existing licences and grant new ones. To do this they use: ▪ the catchment abstraction management strategy (CAMS) process ▪ abstraction licensing strategies Includes Abstraction Licensing Strategies for: ▪ Adur and Ouse ▪ Arun and Western Streams ▪ Cuckmere and Pevensey Levels ▪ East Hampshire	Water

	▪ New Forest ▪ Test and Itchen	
Test and Itchen Catchment Flood Management plan, Defra and Environment Agency (December 2009)	The Test and Itchen CFMP incorporates the catchments of the River Test and River Itchen and their tributaries, an area of approximately 1,760 square kilometres. The main source of flood risk in the Test and Itchen CFMP is from river flooding and this is concentrated within some urban areas. The Test and Itchen rivers are heavily modified, with many structures and multiple or braided channels along their lengths. This supports a number of commercial fisheries, benefiting from the high water quality. Mills, navigation and water meadows have also led to alterations in the flow of watercourses. Historically flood risk management within the Test and Itchen CFMP area has been relatively limited, in large part to preserve the rich natural environment of the river corridors. Schemes completed have been largely related to the creation of culverted channels, and some limited raising of defences, that have often been closely integrated to ongoing urban development. Therefore we are looking for opportunities to revert the catchment back to its natural state.	Water
Landscape Character Assessments (LCA)	Landscape Character Assessments is the process of identifying and describing variation in character of the landscape. LCA documents identify the elements and features that make landscapes distinctive by mapping and describing character types and areas.	Landscape
National Character Areas, Natural England 2023	NCAs are subdivisions in England based on a combination of landscape, biodiversity, geodiversity and economic activity characteristics. They intend to inform local decision making for the natural environment.	Landscape
South Downs National Park Partnership Management Plan (PMP) – 'Shaping the future of you South Downs National Park 2014 – 2019'	All National Parks are expected to have a Management Plan for their area, to help guide the work of those with responsibilities or an interest in the Park. The South Downs National Park PMP is the 1st overarching 5 year strategy for the management of the 1600 square kilometers of landscapes in the South Downs National Park. The fundamental approach that underpins this PMP is delivering sustainable development and in support of that, taking an ecosystem approach. Mitigating and adapting to climate change is considered throughout. The plan embodies the principles of green infrastructure, and provides opportunities to address and make good use of it at a landscape scale, to deliver a wide range of benefits for people. The PMP is broken down in to 11 outcomes which describe how the PMP will deliver the vision, grouped under three headings: **A thriving living landscape**	Landscape

	Outcome 1: The landscape character of the National Park, its special qualities and local distinctiveness have been conserved and enhanced by effectively managing land and the negative impacts of development and cumulative change. Outcome 2: There is increased capacity within the landscape for its natural resources, habitats and species to adapt to the impacts of climate change and other pressures. Outcome 3: A well-managed and better connected network of habitats and increased population and distribution of priority species now exist in the National Park. Outcome 4: The condition and status of cultural heritage assets and their settings is significantly enhanced, many more have been discovered and they contribute positively to local distinctiveness and sense of place. **People connected with places** Outcome 5: Outstanding visitor experiences are underpinned by a high quality access and sustainable transport network providing benefits such as improved health and wellbeing. Outcome 6: There is widespread understanding of the special qualities of the National Park and the benefits it provides. Outcome 7: The range and diversity of traditional culture and skills has been protected and there is an increase in contemporary arts and crafts that are inspired by the special qualities of the National Park. Outcome 8: More responsibility and action is taken by visitors, residents and businesses to conserve and enhance the special qualities and use resources more wisely. **Towards a sustainable future** Outcome 9: Communities and businesses in the National Park are more sustainable with an appropriate provision of housing to meet local needs and improved access to essential services and facilities. Outcome 10: A diverse and sustainable economy has developed which provides a range of business and employment opportunities, many of which are positively linked with the special qualities of the National Park. Outcome 11: Local people have access to skilled employment and training opportunities.	
River Itchen Catchment Management Plan	The function of Catchment Management Plans is to promote the overall vision of The National Rivers Authority for the catchment. This Management Plan covers the catchment of the River Itchen and its estuary upstream of Dockhead, The Plan sets out 10 key issues and associated management proposals.	Water
Downs and Harbours Clean Water Partnership	The Downs and Harbours Clean Water Partnership project area runs from east of Southampton to Bognor Regis. The area includes vital rivers, public water supply aquifers and coastal areas. The partnership aims to:	Water

	▪ Protect and improve the water quality for all by safeguarding groundwater sources used for public water supply. ▪ Reduce pressures on the ecology of local rivers such as the Meon, Wallington, Ems and both River Lavants. ▪ Reduce algal growth in the Portsmouth, Chichester, Langstone Harbours and Rive Hamble estuary.	
Hampshire Water Transfer and Water Recycling Project	The aim of the project is to create a new source of water to supply homes and businesses in Hampshire, so less water needs to be taken from the county's chalk stream rivers. It involves tapping into highly treated wastewater that is currently waste and use advanced treatment techniques to turn it into purified recycled water. The most recent consultation took place in Spring 2025. This plan also addresses drought, with particular focus on avoiding and minimising impacts on the environment.	Cross-cutting
Portsmouth Historic Environment Record Access Charging Policy Portsmouth Historic Environment Records Recording Policy Portsmouth Historic Environment Record Information Services Policy	The Portsmouth HER is a participant in the Historic England (HE) HER Audit Programme. The need for the development of an Access and Charging Policy, Recording Policy and Information Services Policy was identified in the 2022 audit report. The creation of these policies have been included in a five-year action plan produced by Historic England and the Portsmouth City Council Historic Environment Record Officer.	Cultural Heritage
Portsmouth Heritage Strategy 2024-2034	The Strategy by Portsmouth City Council sets out its vision as follows: A city where heritage is understood, celebrated and integral to our life and success. The achieve this ambition at has three aims: ▪ Reinforce and develop Portsmouth's distinct historic identity ▪ Invest in the fabric of historic assets and realise viable uses ▪ Ensure that heritage is an integral part of the economic success for the city in the future	Cultural Heritage
Gosport's Cultural Strategy 2023	The Strategies vision is that 'By 2032 Gosport will be a borough where the positive impact of community-led culture can be seen, with our shared ambitions for arts and heritage propelling regeneration and making Gosport a better place to live, work and visit.' It will apply the following principles in delivering the themes of this strategy: ▪ Communication and co-ordination – improving links between groups, communities, sectors, and regional partners.	Cultural Heritage

	▪ Interaction and immersion – finding ways to make Gosport's story as engaging as possible. ▪ Quality – putting Gosport on the map by growing a reputation for high quality and community-led cultural experiences. ▪ Inclusivity – finding ways for previously under-represented groups to play a fuller part. ▪ Responsibility – responding to the global climate emergency by creating a stage for action and enabling responsible cultural consumption.	
Winchester District Cultural Strategy 2024-2030	This strategy aims to articulate Winchester district's cultural offer and the benefits it provides, embolden the sector to work collaboratively and act as a lever to attract investment. Its vision is as follows: Winchester district's creative dynamism enriches lives and makes amazing things happen. The approach to delivering the strategy will be founded on the following values: ▪ Inclusive - The strategy will mean multiple things to multiple people and will aim to offer something for everyone. ▪ Collaborative - Partners across multiple sectors will work together on shared goals. ▪ Ambitious - Specific and clear ambitions will be defined, including a realistic plan for how these will be achieved. ▪ Resilient - Actions will be focused on building resilience in the sector and partnership group, ensuring, in turn, a resilient strategy. ▪ Distinctive - The strategy will be distinctively Winchester.	Cultural Heritage
Conservation Area Appraisal, Designation and Management Historic England Advice Note 1	The purpose of this Historic England Advice Note is to provide information on conservation area appraisal, designation and management to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment legislation, the policy in the National Planning Policy Framework (NPPF). A Conservation Area Appraisal is an objective analysis of the elements which together define the area's special architectural or historic interest. These elements will be largely physical, both man-made and natural, but will also include more ephemeral considerations, such as spaces, views, uses, and sounds. The appraisal seeks to describe and map these elements to inform everyone involved in the planning process. Appraisals also consider those elements and issues which currently are neutral or detrimental to the special character of the conservation area. The normal lifespan for an appraisal is 10 years, after which they should be reviewed.	Cultural Heritage
Basingstoke & Deane Local Plan 2011 to 2029	The 2029 Vision Statement set out in the Plan includes – 'In 2029 Basingstoke and Deane's people, communities and businesses will be flourishing - enjoying an excellent quality of life and environment, which	Cross-cutting

	has been improved through well planned growth that draws on our strengths and secures vital improvements. Regenerating our towns and estates, and enriching the character and vitality of our villages and outstanding countryside will support Basingstoke as a major vibrant centre, leading North Hampshire and fulfilling an influential role in the region.'	
Basingstoke & Deane Water Cycle Study 2022	This Water Cycle Study (WCS) has been developed to provide evidence to support decision making relating to future development and inform the approach taken within the updated Local Plan (2019- 2039), ensuring that the scale and location of development proposed can be met without adversely impacting on the borough's water environment. It will also help to ensure that required water infrastructure can be planned for and brought forward alongside new development, in a timely and phased manner. There are two key overarching drivers shaping the direction of the WCS as a whole: 1. Delivering sustainable water management – ensure that provision of Water Services Infrastructure (WSI) and mitigation is sustainable and contributes to the overall delivery of sustainable growth and development and that the Local Plan meets the requirements of the National Planning Policy Framework (NPPF) with respect to water; and 2. Water Framework Directive (WFD) and Habitats Regulations compliance – to ensure that growth, through abstraction of water for supply and discharge of treated wastewater, does not prevent waterbodies within the study area (and more widely) from achieving the standards required of them as set out in the WFD River Basin Management Plans (RBMPs) and would not have an impact on the protected species and habitats designated under the Habitats Regulations.	Water
Hampshire Local Nature Recovery Strategy Draft	The County Council has developed the LNRS for Hampshire with key local partners and engaged with a wide range of experts, stakeholders, agencies, organisations and communities across Hampshire and adjacent areas who are interested in helping to deliver nature recovery. The aim of the strategy is to identify locations to create, restore and enhance habitats, providing the best opportunities to deliver nature's recovery. This is determined based on the connectivity of existing habitats and where there are opportunities to improve this further. The strategy will help to target future effort and funding. It also provides a range of options and evidence to inform decisions in the form of recommendations for delivery. The LNRS does not dictate how land is used or limit the choices land managers have on their land.	Biodiversity
Chichester Harbour National Landscape Management Plan 2025 - 2030 Consultation Draft	A National Landscape Management Plan is an agreed partnership document that many organisations help to deliver over the next 5 years, with funding, expertise, guidance, and project delivery. It sets out A Vision for Chichester Harbour National Landscape in 2050 as follows:	Cross-cutting

	▪ Chichester Harbour is viewed internationally as an exemplar of active and effective conservation of the National Landscape, whilst delivering safe and efficient port management. ▪ Habitat decline has been successfully reversed with biodiversity and natural beauty protected, achieved through leadership, education, a high degree of public awareness and community participation. ▪ Chichester Harbour is a net zero landscape that has achieved a balance whereby the amount of greenhouse gases released into the atmosphere is equal to, or less than, the amount removed from the atmosphere, thereby creating a zero impact on climate change ▪ The public consultation on the new Chichester Harbour Management Plan (2025-2030) closed on 30 June 2025.	
Solent Wader & Brent Goose Strategy 2024	The Strategy relates to internationally important brent goose and wading bird populations within and around the Special Protection Areas and Ramsar wetlands of the Solent Coast (Hampshire, Isle of Wight and West Sussex). The underlying principle of the Strategy is to wherever possible conserve extant sites, and to create new sites, enhancing the quality and extent of the feeding and roosting resource. The primary aims of the Strategy are as follows: ▪ to identify the network of areas that are regularly used and are of fundamental importance to over-wintering waterfowl across the Solent; ▪ to maintain a network of sites through better management and protection from development and recreational pressure, and to ensure that they will be resilient to the pressures of climate change and predicted sea level rise in the future; ▪ to provide a strategy that will ensure that the network of important sites is protected, whilst reducing the current uncertainty over site use, in order to better inform key coastal stakeholders.	Biodiversity
WATER COMPANIES – Portsmouth Water		
Water UK Net Zero 2030 Routemap Unlocking a net zero carbon future	In November 2020, water companies unveiled a ground-breaking plan to deliver a net zero water supply for customers by 2030 in the world's first sector-wide commitment of its kind. The industry estimated they could save the emission of 10 million tonnes of greenhouse gas by reaching net zero two decades ahead of the UK Government's legally binding target of 2050. Targets by 2030: ▪ Low emissions vehicles - 100% of fleet passenger vehicles are electrified and 80% of commercial vehicles (LGVs and HGVs) converted to alternative fuels to cut carbon and air pollution.	Cross-cutting

	▪ Water and energy saving - New strategies to tackle leakage and help customers save water, alongside smarter and more efficient networks and catchments. ▪ Process emissions - Targeting a reduction of up to 60% from our 2018-19 baseline by 2030, with monitoring of emissions to inform research and detailed pathways ahead of PR24. ▪ Renewable power - Up to 3GW of new solar and wind power coupled with energy efficiency measures and suitable storage to provide up to 80% of sector demand, relieve pressure on grid generators, and minimise the need for offsets. ▪ Green gas - Biomethane from sewage waste is injected into the grid to heat up to 150,000 homes, use in hard to decarbonise sectors, or to generate low-carbon power when generation from renewables is low. ▪ Restoring native habitats - 20,000 hectares of owned peatland and grassland are restored and 11 million new trees are planted. These nature-based measures will help achieve a just transition by reducing demand on treatment, providing an important sink for the hard to abate activities like process emissions, restoring habitats, and reducing flood risk. ▪ Targeting innovation — process emissions are highly uncertain and tackling them quickly is a significant global challenge. We don't have all the answers yet and finding efficient retrofit solutions is a big priority for our innovation strategy. ▪ Offsetting residual emissions — even in the most ambitious of our pathways, achieving net zero will include purchasing suitable offsets to counter emissions that cannot be tackled directly by 2030. The development of a robust UK market for businesses to procure carbon offsets will be a key part in helping the sector manage any emissions that cannot yet be eliminated.	
Portsmouth Water 2030 Net Carbon Zero Roadmap	The roadmap sets out that Portsmouth Water aims to be operationally net zero by 2030, attaining a 100% reduction in their operational emissions compared to 2020. To make this happen they will be investing further in decarbonisation measures including: ▪ Minimising water leakage and promoting more efficient water usage. ▪ Investing in energy efficient measures to streamline consumption. ▪ Installing sub-metering across our sites to better monitor energy consumption. ▪ Decarbonising our vehicle fleet and optimising travel. ▪ Keeping to a minimum any carbon emissions from new projects and growth	Climatic Factors
Portsmouth Water Climate Change Adaption Report (2021)	This report has been structured to highlight Portsmouth Waters risks, opportunities, and actions in four main areas to ensure they can continue to:	Climatic Factors

	▪ provide safe and sufficient public water supply. ▪ be resilient to natural hazards. ▪ protect the environment and support biodiversity. ▪ manage interdependencies and cascading failures. During the first round of adaptation reporting in 2011 Portsmouth Water identified and prioritised their climate change risk by undertaking a Risk Assessment using the latest climate change information at that time (UKCP09). These risks then fed into the corresponding Climate Change Adaptation Action Plan to enable them to build further capacity for climate adaptation into our existing risk mechanisms.	
Portsmouth Water WRMP24	In summary, Portsmouth Water's WMRP24 aims to: ▪ Construct and fill Havant Thicket Reservoir by 2031 to supply water to Portsmouth Water customers and free up supplies elsewhere to share with Southern Water in a drought ▪ Install smart water meters in most of the homes supplied and replace existing meters with smart ones by 2035 to encourage water saving, find leaks and introduce fairer bills ▪ Support everyone to reduce their water use to an average of 121 litres per person per day by 2050 (about 154 litres on average today) through community rewards, water-saving devices and home audits ▪ Halve leaks by 2040 and by a further one per cent every five years after ▪ Upgrade a water supply 'booster' station in West Sussex by 2033 so Portsmouth Water can move water more easily to where it's needed ▪ Increase resilience so Portsmouth Water can reduce the likelihood of emergency drought restrictions such as standpipes to once every 500 years on average after 2039 and stop using an emergency permit to take water during droughts	Water
Neighbouring water companies	Water resource management plans of neighbouring water companies may interact with options included in the WRMP24. Neighbouring water companies to Portsmouth Water include Southern Water and South East Water. Southern Water's plans cover parts of Kent, Sussex, Hampshire and the Isle of Wight in the South East. Their plans include a Water Resource Management Plan 2025[2] and a Drought Plan[3].	Water

[2]Southern Water (2025) *Water Resources Management Plan 2025.* Available: Water Resources Management Plan - Southern Water
[3] Southern Water (2025) *Our Drought Plan*. Available: Our Drought Plan (southernwater.co.uk)

	South East Water's plans cover parts of Kent, Sussex, Surrey, Berkshire and Hampshire. Their plans include a Revised draft Water Resource Management Plan 2020-2080[4] and a Drought Plan[5].	
Southern Water Final Draft Water Resources Management Plan 2025	The plan sets out that water is a precious resource and to meet the challenge of securing sustainable, long-term water supplies and to protect the environment, the strategy is built on four key objectives that work in tandem to deliver a step change in water resources planning: ▪ Efficient use of water and minimal wastage across society ▪ New water sources that provide resilient and sustainable supplies ▪ A network that can move water around the region ▪ Catchment and nature-based solutions that improve the environment we rely upon ▪ A key part of Southern Water's Western Area strategy is the Hampshire Water Transfer and Water Recycling Project Strategic Resource Option. Another Strategic Resource Option that Southern Water are investigating is the Thames to Southern Transfer, a transfer from Thames Water into Southern Water's Western area.	Water
Southern Water Drought Plan 2022	Southern Water's Drought Plan includes information on: ▪ How Southern Water define a drought and the trigger levels used to determine the status of water resources and the corresponding activities the company should be undertaking. ▪ Customer and stakeholder communication during a drought and the consultation the company will undertake during a drought, including working with neighbouring water companies. ▪ Demand management activities Southern Water will promote to conserve water. ▪ Activities the company will undertake to maintain or increase the amount of water available, and an assessment of how these could impact the environment and how they propose to monitor and mitigate this.	Water
South East Water Water Resources Management Plan 2025 to 2075	WRSE has developed a best value plan which sets out a regional solution to securing the South East's water supplies from 2025 to 2075, based on four priorities: ▪ Efficient use of water and minimal wastage across society. ▪ New water sources that provide resilient and sustainable supplies.	Water

[4] South East Water (2024) *Water Resources Management Plan 2025 to 2075*. Available: Water resources management plan 2024 | South East Water
[5] South East Water (2022) *Drought Plan 2022*. Available: Drought Plan 2022 | South East Water

	▪ A network that can move water around the region. ▪ Catchment and nature-based solutions that improve the water environment. A key part of South East Water's Preferred Plan involves South East Strategic Resource Option, a large-scale infrastructure solution for securing additional water in the South East. It is proposed that a new transfer spur from the Thames to Southern strategic resource option will provide 10 Ml/d in South East Water's WRZ4 (Bracknell). This scheme will use water from proposed new strategic treated water pipeline between Thames and Southern Water and transfer to South East Water's existing service reservoir at Northgate.	
South East Water Drought Plan 2022 to 2027	The plan details what actions will be taken to conserve water and secure customers' supplies, while balancing the environment. These actions include: ▪ Moving water around the network ▪ Fast-tracking schemes to increase water resources ▪ Working even harder to fix leaks ▪ Promoting sensible water use ▪ The introduction of temporary water use restrictions	Water

Appendix C. Baseline Review

C.1 Biodiversity

Table C-1 - Biodiversity

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Special Protection Areas (SPA's)	As of April 2025, there were 90 Classified SPAs in England, covering an area of 2,185,136.47 ha[6]. There is one site crossing the England / Scotland border (135,807 ha), two across the England / Wales border (38,810 ha), one classified as England / Wales / Offshore (252,311 ha) and two classified as England / offshore (745,722 ha) as of October 2024. SPAs in England are predominantly located in coastal and estuarine areas, with various sites distributed inland[7].	As of January 2025, there are 23 classified SPAs within the South East region of England. • **Ashdown Forest** designated for supporting nationally important breeding populations of bird species and internationally important wintering populations; • **Avon Valley** designated for supporting nationally important assemblage of breeding wetland birds and internationally important wintering populations; • **Dorset Heathlands** designated due to supporting nationally important species: Dartford Warbler, Nightjat, Woodlark, Hen harrier and Merlin; • **Dungeness, Romney Marsh and Rye Bay** designated for its tern breeding colonies; • **Thanet Coast & Sandwich Bay** is designated for supporting populations of Turnstone; • **Outer Thames Estuary** designated due to supporting Common tern, Little tern and Red-throated diver; • **New Forest** designated for its breeding colonies;	Within and immediately adjacent the Plan Area there are five classified SPAs. • **Portsmouth Harbour** – a large industrialised estuary and includes one of the four largest expanses of mudflats and tidal creeks on the south coast of Britain. Supports migratory waterfowl including dark-bellied brent geese and red-breasted merganser. • **Pagham Harbour** – comprises an extensive central area of salt marsh and tidal mudflats, with surrounding habitats including lagoons, shingle, open water, reed swamp and wet permanent grassland. Also a designated Local Nature Reserve • **Chichester and Langstone Harbours** – internationally important because it regularly supports more than 10,000 wintering wildfowl and more than 20,000 wintering waders. • **Solent and Dorset Coast** – covering over 88,000 ha the site is located along the coasts of Dorset, Hampshire, Isle of Wight and West Sussex and adjacent areas offshore. Supports more than 1% of the UKs breeding populations of three species listed in Annex I of the Birds

[6] Natural England (2024) Designated Sites View. Available https://designatedsites.naturalengland.org.uk/ReportFeatureConditionSummary.aspx?SiteType=SPA

[7] Joint Nature Conservation Committee JNCC (2020) *Special Protection Areas – overview*. Available https://jncc.gov.uk/our-work/special-protection-areas-overview/

	• **Portsmouth Harbour** due to internationally and nationally important numbers of birds and specifically protects the following features: dark-bellied Brent goose; red-breasted merganser; dunlin; and black-tailed godwit; • **Chichester and Langstone Harbours** designated as an area for breeding and wintering of species of bird; • **Medway Estuary & Marshes** designated for breeding and non-breeding populations and regularly occurring migratory bird species; • **Thames Estuary & Marshes** is designated for its wetland that supports important numbers of wintering waterbirds and migrating birds; • **The Swale** is designated for its non-breeding colonies; • **South West London Waterbodies** - is designated for internationally important numbers of wintering Gadwall and Shoveler and is located to the south in the plan area; • **Solent and Dorset Coast** designated due to supporting Common tern, Little tern and Red-throated diver; • **Solent and Southampton Water is** designated due to supporting Mediterranean Gull, Sandwhich tern, Common ter, Little ter and Roseate tern; • **Stodmarsh** is designated due to supporting nationally important wintering populations of two bittern and hen	Directive. Overlaps multiple SSSIs LNRs and SPAs • **Solent and Southampton Water** – comprises a series of estuaries and adjacent coastal habitats important for breeding gulls and terns and wintering waterfowl. Overlaps multiple SSSIs and regularly supports over 20,000 waterfowl and almost 30,000 waders.

harrier. It also supports other migratory species and breeding species.

- **Salisbury Plain** - is designated for breeding Stone Curlew populations and located to the south west in the plan area;
- **Arun Valley** - is designated as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds and located to the south in the plan area;
- **Thames Basin Heaths** is designated due to supporting nightjar, woodlark and dartford warbler;
- **Thursley, Hankley & Grnsham Commons (Wealden Heaths Phase I)** is designated due to supporting internationally important populations of nightjars, woodlark and dartford warblers;
- **Wealden Heaths Phase II** is designated due to supporting internationally important populations of nightjars, woodlark and dartford warblers;
- **Pagham Harbour** - is designated for populations of Annex I and migratory bird species and supporting their survival and reproduction, located to the south; and
- **Porton Down** – is designated for its important breeding populations of Stone-curlew Burhinus oedicnemus, Quail Coturnix coturnix, Hobby Falco subbuteo, and over-wintering Hen

	harrier Circus cyaneus located in the south west of the plan area.

Explanatory text and anticipated future trends:

Special Protection Areas (SPAs) are protected areas for birds in the UK. SPAs are classified in accordance with European Council Directive 2009/147/EC on the conservation of wild birds, known as the Birds Directive, now transposed into UK law through the Conservation of Habitats and Species Regulations 2017 (as amended). SPAs protect rare and vulnerable birds (as listed on Annex I of the Birds Directive), and regularly occurring migratory species. JNCC[8] is responsible for advising the UK Government and Devolved Administrations on aspects of the classification and management of SPAs from a UK perspective, including reporting on the implementation of the UK SPA programme and the status and trends of protected bird species. New potential Special Protection Areas (pSPAs) for classification or updates to existing SPAs are submitted in tranches.

The UK's Statutory Nature Conservation Bodies (SNCBs) are responsible for assessing the condition of SPAs. Approximately 55% of all SPA's in the UK are classified as being in favourable or unfavourable-recovering condition, with 23% classed as unfavourable with no change[6].

The locations of SPAs are shown in Appendix D.

Anticipated Future Trends[9]:

The composition of flora and fauna on each Protected Area (PA) will change – high confidence (medium evidence, high agreement)

- Cold adapted species of high latitudes and altitudes will tend to decrease on PAs, whilst warm adapted species will tend to increase – medium confidence (medium evidence, medium agreement)
- PAs in the North of the UK will gain plant species overall, whilst PAs in the south may lose some native plant species. This pattern is reversed for UK breeding birds – low confidence (medium evidence, low agreement)
- Species with lower dispersal capacities and those for which urban and intensive agricultural areas are a barrier to dispersal will be unable to colonize PAs that become climatically suitable – low confidence (limited evidence, medium agreement
- Increasing range mismatching of interacting species, such as butterflies and their host plants, might mean that more management is necessary on PAs to preserve species that interact with each other – low confidence (limited evidence, medium agreement).

Integrating consideration of climate change into management plans for the PA network is likely to result in more effective (and cost-effective) conservation solutions. In order to facilitate this integration, monitoring of climate change impacts and management actions should be carried out to enable adaptive decision making.

[8] Joint Nature Conservation Committee JNCC (2020) *Special Protection Areas – Overview.* Available: https://jncc.gov.uk/our-work/special-protection-areas-overview/

[9] Bournemouth University (2015) *Biodiversity Report Card.* Available: https://nerc.ukri.org/research/partnerships/ride/lwec/report-cards/biodiversity-source04/

Special Areas of Conservation (SAC's)	As of April 2025, there were 256 SACs in England, covering an area of 5,748,138 ha[10]. There are no SCI's or cSACs. There are three SACs crossing the England / Scotland border (112,894 ha) and seven across the England / Wales border (95,182 ha). Additionally, there are three SACs which are classified as England / offshore (3,797,160 ha) and one England / Wales / Offshore (584,210 ha)[11]. SACs are widely distributed throughout England; however, the highest concentrations correspond with the more remote rural and upland locations.	There are 55 classified SACs in the South East Region of England.	Within the Plan Area there are six classified SACs: • Butser Hill • Rook Clift • Singleton and Cocking Tunnels • Kingley Vale • Solent and Isle of Wight Lagoons • Solent Maritime SAC forms the estuaries that bounds part of the Plan area to the south.

Explanatory text and anticipated future trends:

SACs are strictly protected sites designated under the EC Habitats Directive, now transposed into UK law through the Conservation of Habitats and Species Regulations 2017 (as amended). Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Sites of Community Importance (SCIs) are sites that have been adopted by the European Commission but not yet formally designated by the government of each country. Candidate SACs (cSACs) are sites that have been submitted to the European Commission, but not yet formally adopted. JNCC is responsible for advising the UK Government and devolved administrations on aspects of the designation and management of SACs from a UK perspective.

SACs are of national and international conservation importance.

Approximately 54.32% of all SAC's in the UK are classified as being in favourable or unfavourable-recovering condition, with 7.51% classed as unfavourable with no change[12].

The locations of SACs shown in Appendix D.

[10] Natural England (2025) Designated Sites View. Available: https://designatedsites.naturalengland.org.uk/ReportFeatureConditionSummary.aspx?SiteType=SAC

[11] JNCC (2024) UK SAC network Summary. Available: https://jncc.gov.uk/our-work/special-areas-of-conservation/

[12] Natural England (2024) *Designated Sites View.* Available https://designatedsites.naturalengland.org.uk/ReportFeatureConditionSummary.aspx?SiteType=SAC

	Anticipated Future Trends[13]: See above details that are applicable to all forms of PA.		
Marine Conservation Zones (MCZs)	Marine Conservation Zones are areas that protect a range of nationally important, rare or threatened habitats and species. There are 91 MCZs in waters around England as of 2019[14]. These are spread across the English coastline but there are concentrations along the English Channel and South West.	Marine Conservation Zones in waters off the South East of England include: ▪ Beachy Head East ▪ Beachy Head West ▪ Bembridge ▪ Dover to Deal ▪ Dover to Folkestone ▪ Medway Estuary – Zone 1 ▪ Medway Estuary – Zone 2 ▪ Pagham Harbour ▪ Selsey Bill and the Hounds ▪ Swanscombe ▪ Thanet Coast ▪ The Needles ▪ The Swale Estuary ▪ Yarmouth to Cowes	Within/adjacent the Plan Area there are two classified MCZs: ▪ Selsey Bill and the Hounds ▪ Pagham Harbour Selsey Bill and the Hounds MCZ is a 16km2 area that extends of the southern tip of Selsey. Protected features include high and low energy infralittoral rock, moderate energy circalittoral and infralittoral rock, peat and clay exposures, subtidal mixed sediment and subtidal sand. The geology type is recorded as Bracklesham Bay and is also protected under the MCZ. Pagham Harbour MCZ is a 3km2 area that sits just south of Pagham and protected features include Defoli's lagoon snail, Lagoon sand shrimp and Seagrass beds.
	Explanatory text and anticipated future trends: The UK government aims to have 'clean, healthy, safe, productive and biologically diverse oceans and seas'. The government has made a commitment to completing a network of Marine Conservation Zones (a type of Marine Protected Area), to create a Blue Belt of protected sites around our coasts. The locations of MCZs are shown in Appendix D. Anticipated Future Trends[15]:		

[13] UKRI (2024) Available: Natural Environment Research Council (NERC) – UKRI

[14] Natural England (2019) Marine conservation zone: designations in England. Available: https://www.gov.uk/government/collections/marine-conservation-zone-designations-in-england

[15] UKRI (2024) Natural Environment Research Council. Available: https://www.ukri.org/councils/nerc/

	Increasing marine development, pollution, fishing practices and climate change place pressure on MCZs and wider marine habitat and wildlife. Management measures may be required in order to restore or maintain the conservation status of the protected features of MCZs. See above details that are applicable to all forms of PA.		
Sites of Special Scientific Interest (SSSI) NB. The SSSI information shown includes sites designated for both biological and geological reasons.	There are over 4,100 SSSIs in England, covering about 1,102,455 ha[16]. Some of these sites correspond with other designations, such as SACs, SPAs and NNRs. SSSIs are widespread throughout the whole of England and cover a wide variety of habitats and geological features.	There are 708 classified SSSIs in the South East Region of England.	There are 41 classified SSSIs within the Plan Area. These SSSIs are each associated with Impact Risk Zones for a broad range of development proposals including those relevant to the water sector (large infrastructure, waste treatment, proposals to discharge water or liquid waste to ground, landfilling, incineration, development that may lead to air and dust pollution, large non-residential developments outside existing settlements).
	Explanatory text and anticipated future trends: A Site of Special Scientific Interest (SSSI) is a formal conservation designation of national importance. Usually, it describes an area that's of particular interest to science due to the rare species of fauna or flora it contains - or even important geological or physiological features that may lie in its boundaries. SSSIs often contain important habitats such as grasslands, parkland and woodland. Some even contain ancient woodland and ancient trees. In other words, these areas have high conservation value, and need to be protected. Official authorities in each country determine which sites should have SSSI status, for England this is Natural England. Approximately 62% of all SSSIs in England are classified as being in favourable condition, with approximately 21% classed as unfavourable but recovering. Approximately 11% of SSSIs are in a declining condition with 0.44% being partially destroyed[16]. Natural England have also developed SSSI Impact Risk Zones (IRZs) which allow for a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. IRZs for a broad range of development proposals have been identified within the Plan Area including those relevant to the water sector including large infrastructure projects, waste treatment, proposals to discharge water or liquid waste to ground, landfilling and incineration, development that may lead to air and dust pollution and large non residential developments outside existing settlements). The locations of SSSIs within the Plan Area are shown in Appendix D.		

[16] Natural England (2016) *Designated Sites View.* Available: https://designatedsites.naturalengland.org.uk/ReportFeatureConditionSummary.aspx?SiteType=ALL

	Anticipated Future Trends[17]: See above details that are applicable to all forms of PA.		
Nature Reserves (National and Local)	National Nature Reserves (NNR) As of March 2025, there are 221 NNRs in England, covering over 110,000 ha of land[18]. Local Nature Reserves (LNR) As of November 2021, there are 1,723 LNRs in England[19].	National Nature Reserves (NNR) In the South East region of England, there are 37 NNR recorded. Local Nature Reserves (LNR) In the South East region of England, there are 302 LNR recorded.	There are five NNR recorded within the Plan Area: ▪ Beacon Hill ▪ Old Winchester Hill ▪ Titchfield Haven ▪ Kingley Vale ▪ Butser Hill There are 29 LNR recorded in the Plan Area. These include: ▪ Bishops Waltham Branch Line ▪ Brandy Hole Copse ▪ Brook Meadow ▪ Catherington Down ▪ Catherlington Lith ▪ Clylands ▪ Dell Piece West ▪ Dundridge Meadows ▪ Eames Farm ▪ Fairmile Bottom ▪ Farlington Marshes ▪ Gutner Point ▪ Harting Down

[17] UKRI : https://www.ukri.org/councils/nerc/

[18] Natural England (2025) *National Nature Reserves in England*. Available: https://www.gov.uk/government/collections/national-nature-reserves-in-england

[19] Natural England (2021) *Designated Sites View.* Available: https://designatedsites.naturalengland.org.uk/SiteList.aspx?siteName=&countyCode=&responsiblePerson=&DesignationType=LNR

- Hayling Billy
- Hazelton Common LNR
- Nutborne Marshes
- Oxenbourne Down
- Pagham Harbour
- Pilsey Island
- Sandy Point
- The Brooks
- The Kench, Hayling Island
- The Moors, Bishops Waltham
- The Wild Grounds
- Titchfield Haven
- West Hayling
- West of the River Alver; and
- Yeoll's Copse

Explanatory text and anticipated future trends:

National Nature Reserves (NNRs) were established to protect some of our most important habitats, species and geology, and to provide 'outdoor laboratories' for research. Natural England manages approximately two thirds of England's NNRs. The remaining reserves are managed by organisations approved by Natural England, such as the National Trust, Forestry Commission, RSPB, Wildlife Trusts and local authorities.

Approximately 37% of all NNRs in England are classified as being in favourable condition, with 18% classed as unfavourable but recovering. Approximately 8% of NNRs are in a declining condition with 0.4% being partially destroyed[20].

Local Nature Reserves (LNRs) are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. Parish and Town Councils can also declare LNRs, but they must have the powers to do so delegated to them by a principal local authority. LNRs are places with wildlife or geological features that are of special interest locally. They offer people opportunities to study or learn about nature or simply to enjoy it. They range from windswept coastal headlands, ancient woodlands and flower-rich meadows to former inner-city railways, long abandoned landfill sites and industrial areas now re-colonised by wildlife. They are an impressive natural resource which makes an important contribution to England's biodiversity.

[20] Natural England (2025) *Designated Sites View*. Available: https://designatedsites.naturalengland.org.uk/ReportFeatureConditionSummary.aspx?SiteType=NNR

	The locations of NNRs and LNRs within the Plan Area are shown in Appendix D. Anticipated Future Trends: See above details that are applicable to all forms of PA.		
Ramsar Sites	As of November 2021, there are 73 Ramsar sites in England, covering an area of 404,248 Ha[21].	There are 16 Ramsar sites in the South East region	There are four Ramsar sites within or adjacent the Plan Area: • Solent and Southampton Water • Pagham Harbour • Portsmouth Harbour • Chichester and Langstone Harbours
	Explanatory text and anticipated future trends: Ramsar sites are wetlands of international importance designated under the Ramsar Convention. The initial emphasis was on selecting sites of importance to water birds within the UK, and consequently many Ramsar sites are also Special Protection Areas (SPAs) classified under the Birds Directive. Sites proposed for selection are advised by the UK statutory nature conservation agencies, or the relevant administration in the case of Overseas Territories and Crown Dependencies, co-ordinated through JNCC. Approximately 40% of all Ramsar Site in England are classified as being in favourable condition, with 14% classed as unfavourable but recovering. Approximately 11% of Ramsar Sites are in a declining condition with 0.4% being partially destroyed[21]. The locations of Ramsar Sites within the Plan Area are shown in Appendix D. Anticipated Future Trends[22]: See above details that are applicable to all forms of PA.		
RSPB Reserves	The RSPB's latest annual report states that there are 222 RSPB reserves in England, covering 158,651 Ha[23].	There are approximately 32 RSPB Reserves located in the South East Region.	Four RSPB Reserves are located within the plan area: • Langstone Harbour

[21] Natural England (2021) Designated Sites View. Available: https://designatedsites.naturalengland.org.uk/ReportConditionSummary.aspx?SiteType=RAMSAR

[22] UKRI : https://www.ukri.org/councils/nerc/

[23] RSPB (2024) *Annual Report 2023-24*. Available: https://www.rspb.org.uk/about-us/annual-report

			• Pilsey Island • Medmerry • Pagham Harbour
	Explanatory text and anticipated future trends: RSPB reserves are nature reserves run by the Royal Society for the Protection of Birds (RSPB); a non-statutory body incorporated by Royal Charter. RSPB reserves cover a broad range of habitat and landscapes, including heathland, estuaries, cliffs. <u>Anticipated Future Trends:</u> See above details that are applicable to all forms of PA.		
Woodland Priority Habitat	As of October 2021, 39% of total priority habitats in England are classified as deciduous woodland. The majority of woodland priority habitats are located in the South East of England.	Priority habitats make up 16.6% of the South East region equating to a total of 39,5109ha. Deciduous woodland accounts for the highest percentage of priority habitat in the region[24].	Deciduous woodland accounts for the highest percentage of priority habitat within the plan area. Other key habitat types include coastal and floodplain grazing marsh and lowland calcareous grassland.
	Explanatory text and anticipated future trends: Priority habitats can be designated as protected areas called Sites of Special Scientific Interest (SSSIs). They can also be outside of these SSSI protected areas but be under Higher Level Stewardship (HLS) or Countryside Stewardship (CS) agreements or fall within Forestry Commission (FC) 'Managed woodland'. Some priority habitats, however, fall outside of the protection of all these schemes. <u>Anticipated Future Trends:</u> See above details that are applicable to all forms of PA.		
Local Wildlife Sites	Reported at a local level only	Reported at a local level only	Data across the Plan Area in respect of Local Wildlife Sites, their status (candidate or designated) and precise location is not readily available. LWS are present within and outside Portsmouth City Council area and were previously referred to as Sites of Importance for Nature Conservation.

[24] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

			12 LWS were designated as Part of Portsmouth Local Plan and precedes the identification of candidate LWS in subsequent planning documents (e.g. Portsmouth City Council Candidate LWS 2015 Update).
	Explanatory text and anticipated future trends: Local wildlife Sites are areas of land that are especially important for their wildlife. They are identified and selected locally using scientifically-determined criteria and surveys. They are corridors for wildlife, forming key components of ecological networks. They make up a web of stepping stones and corridors for wildlife, forming key components of ecological networks. <u>Anticipated Future Trends</u>: It is anticipated that the number of LWS within and beyond the Plan area will continue to grow through the identification of Candidate LWS. See above details that are applicable to all forms of PA.		
National Priority Focus Areas	Reported at a local level only	Reported at a local level only	Four Natural England National Priority Focus Areas overlap the Plan Area, as follows: ▪ Chichester Harbours and Pagham ▪ Sheltered Coast ▪ South Downs ▪ Woods and Parks
	Explanatory Text and anticipated future trends: Natural England's National Priority Focus Areas are typically where NE are targeting more than one delivery programme. So these areas are the key opportunities for NE to integrate its delivery to achieve better outcomes. The focus areas are a broad guide as to where NE anticipate focusing more effort in future though are not precise and are anticipated to evolve. NE want to focus proportionately more of its resource in focus areas and Nature Improvement Areas over time. <u>Anticipated Future Trends:</u> While not a precise or definitive map, these areas indicate where future investment and focus will be in respect of Natural England. While not a moratorium on projects that are outside focus areas, there is a strong steer towards projects within these areas in the future.		
Nature Improvement Areas	Reported at local level only	Reported at local level only	One Nature Improvement Area intersects the Plan Area, as follows:

		▪ South Downs Way Ahead The area encompasses key chalk sites of the South Downs National Park. The NIA will restore 1000 ha of chalk grassland and encourage the return of the Duke of Burgundy butterfly and several species of farmland birds.
	Explanatory text and anticipated future trends: The Nature Improvement Areas project was in response to the Governments review, with the aim of creating bigger, better, more and joined spaces for nature. In 2011 a competition was launched by DEFRA to select twelve pilot sites for NIAs and in response seventy-six entries were made. In 2012 a final list of 12 NIAs were announced and run with the aid of Local Nature Partnerships and around 11,000 volunteers. <u>Anticipated Future Trends:</u> The NIA project has finished but the philosophy of landscape scale conservation will be continued through future initiatives including Farmer clusters (Countryside Stewardship Facilitation Fund scheme), Brighton Integrated Catchment Management Partnership and funding from the Rampion Offshore Wind Farm project.	

C.2 Population and Human Health

Table C-2 - Population and Human Health

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Population and Locations of Major Settlements	In mid- 2023, England had an estimated population of 57,690,323[25]. By 2047, it is expected that the population of England will be approximately 65.4 million; an increase of 12.7%. The proportion of those aged 65 and over is due to increase by 24.1% by 2047, the largest increase for any age category. Meanwhile, the proportion of those aged between 0-29 and between 30-64 will decrease by 5.1% and increase by 0.7%, respectively over the same period[26]. The number of households in England is projected to increase by 1.6 million (7.1%) over the next 10 years, from 23.2 million in 2018 to 24.8 million in 2028[27]. Growth in the number of households is fastest where the household reference person (HRP) is of older age; 64% of the total growth in households is accounted for by households where the HRP is aged 75 years or over.	As of the 2021 census, approximately 9,278,100 people, equating to around 16% of the UK's total population, live within the South East region[28]. Settlements within the region are diverse and range from large population centres such as London to small rural hamlets and seaside towns. Long-term population growth in the region is anticipated to be around four million[29].	The following Local Authorities intersect the Plan Area and as of the Census 2021 Census have the following populations[30]: ▪ Portsmouth – 208,100 ▪ East Hampshire – 125,700 ▪ Fareham – 114,500 ▪ Gosport – 81,900 ▪ Havant – 124,200 ▪ Winchester – 127,500 ▪ Arun – 164,800 ▪ Chichester – 124,100 Within the Plan Area, Portsmouth was the most densely populated (and within the South East region) with 37 people per football pitch-sized area of land[30]. Some of the other key urban areas within the plan area[31]: ▪ Chichester population of 29,425

[25] ONS (2024) *Estimates for the Population for the UK, England, Wales, Scotland and Northern Ireland: Mid-2023 Edition*. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland

[26] ONS (2025) UK Population Projection Explorer. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/articles/ukpopulationprojectionexplorer/2025-01-28

[27] ONS – Household projections for England: 2018-based. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/householdprojectionsforengland/2018based#household-type-projections

[28] ONS (2022) Population and household estimates, England and Wales: Census 2021. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhouseholdestimatesenglandandwalescensus2021

[29] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

[30] ONS (2022) *How the population changed in Portsmouth: Census 2021.* Available: https://www.ons.gov.uk/visualisations/censuspopulationchange/E06000044/

[31] United Kingdom: South East England (Local Authority Districts and Parishes) - Population Statistics, Charts and Map (citypopulation.de)

	The number of people aged 75 years and over living on their own is projected to increase by 461,000 in the 10 years to 2028.		▪ Havant population of 124,185 ▪ Clanfield population of 6,015 ▪ Bognor Regis population of 25,011 ▪ Southbourne population of 6,385 ▪ North Mundham population of 1,789 ▪ Bishops Waltham population of 6,955
	Explanatory text and anticipated future trends: Latest ONS figures for household projections in England show an indication of the future number of households in England and its regions and local authorities[32]. These are used for planning in areas such as housing and social care. The latest household projections show a continued rise in the number of households in England, at a level closely in line with what was previously projected. There continues to be much variation across age groups, regions and household types. ONS project the majority of household growth over the next 10 years will be because of an increase in older households without dependent children, particularly those where the household reference person is aged 75 years and over. This shows the potential impact of an ageing population on future household formation. The South East Region is expected to see substantial population growth in the coming years, with the proportion of residents of an older age increasing in line with the trend across much of England. Development across the plan area needs to be particular considerate of this group in relation to the design of development and neighbourhoods as well as the accessibility of services and facilities. There will be a need to promote development which ensures the issue of isolation does not become more prevalent given the expected increase in the proportion of single person households among older people. Without a strategic approach to development, it is less likely that these challenges will be comprehensively met.		
General Health	The Health Survey for England notes that in England, between 1993 and 2022, the proportion of adults reporting very good and good general health has stayed at similar levels. In 2022, 41% of adults reported that they had at least one longstanding illness. Among adults 16 and over, 67% of men and 61% of women were overweight or obese and among children, 13% of boys and 17%	The percentage of the South East population describe their general health as the following[38]; ▪ General health very good – 47% ▪ General health good – 35% ▪ General health fairly good – 13% ▪ General health bad – 4% ▪ General health very bad – 1%	Clinical Commissioning Groups intersecting the Plan area are as follows: ▪ NHS Portsmouth ▪ NHS West Sussex ▪ NHS Hampshire, Southampton and Isle of Wight Public Health England Health Profiles report the following in summary for each of the LAs

[32] ONS (2021) Household projections for England: 2018-based. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/householdprojectionsforengland/2018based#household-type-projections

[38] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

	of girls were obese[33]. Approximately 14% of men and 11% of women currently smoke cigarettes, and 10% of mean and 8% of women currently use e-cigarettes[34]. The suicide rate in England in 2023 was recorded at 11.2 per 100,000 people[35]. Healthy life expectancy at birth among females in the UK decreased from 63.7 years in 2014 to 2016 to 63.3 years in 2017 to 2019 to 61.9 years in 2021 to 2023. Although they report higher HLE than males between 2014-2019, HLE at birth for males in the UK between 2021 and 2023 has decreased to 61.5 years[36]. There are estimated to be over 300,000 people in England are dependent on heroin and/or crack[37].	Of note, of the ten local authorities with the highest rates of Good health in England, six were located in the South East region. In the Sout East, HLE at birth is 64.4 for females and 63.54 for males between 2021-2023, higher but following the overall national trend.	intersecting the Plan Area. Further information is available at the linked LA Health Profile Reports: ▪ Portsmouth The health of people in Portsmouth is varied compared with the England average. Portsmouth is one of the 20% most deprived districts/unitary authorities in England and about 20.0% (7,543) children live in low income families. Life expectancy for both men and women is lower than the England average[39]. ▪ East Hampshire The health of people in East Hampshire is generally better than the England average. East Hampshire is one of the 20% least deprived districts/unitary authorities in England, however about 9.4% (2,092) children live in low income families. Life expectancy for both men

[33] NHS England (2024) *Health Survey for England 2022: Part 2.* Available: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2022-part-2

[34] NHS England (2024) *Health Survey for England 2012: Part 1.* Available: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2022-part-1/health-survey-for-england-2022-part-1-data-tables

[35] ONS (2021) *Deaths caused by suicide by quarter in England.* Available: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathscausedbysuicidebyquarterinengland

[36] ONS (2021) *Health state life expectancies in England and Wales, 2021-2023.* Available: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/healthstatelifeexpectanciesuk/between2011to2013and2021to2023#data-on-healthy-life-expectancy-for-local-areas-of-england-and-wales-between-2011-to-2013-and-2021-to-2023

[37] Public Health England (2022) *From harm to hope: A 10-year drugs plan to cut crime and save lives*. Available: https://www.gov.uk/government/publications/from-harm-to-hope-a-10-year-drugs-plan-to-cut-crime-and-save-lives/from-harm-to-hope-a-10-year-drugs-plan-to-cut-crime-and-save-lives

[39] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E06000044.html?area-name=Portsmouth

and women is higher than the England average[40].

- Fareham

  The health of people in Fareham is generally better than the England average. Fareham is one of the 20% least deprived districts/unitary authorities in England, however about 8.9% (1,640) children live in low income families. Life expectancy for both men and women is higher than the England average[41].

- Gosport

  The health of people in Gosport is varied compared with the England average. About 16.2% (2,352) children live in low income families. Life expectancy for both men and women is lower than the England average[42].

- Havant

  The health of people in Havant is varied compared with the England average. About 17.7% (3,835) children live in low income families. Life expectancy for both men and women is similar to the England average[43].

- Winchester

  The health of people in Winchester is generally better than the England

[40] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000085.html?area-name=East%20Hampshire

[41] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000087.html?area-name=Fareham

[42] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000088.html?area-name=Gosport

[43] https://fingertips.phe.org.uk/static-reports/health-profiles/2018/E07000090.pdf?area-name=Havant

average. Winchester is one of the 20% least deprived districts/unitary authorities in England, however about 8.3% (1,975) children live in low income families. Life expectancy for both men and women is higher than the England average[44].

- Arun

  The health of people in Arun is varied compared with the England average. About 14.5% (3,720) children live in low income families. Life expectancy for both men and women is similar to the England average[45].

- Chichester

  The health of people in Chichester is generally better than the England average. About 11.8% (2,345) children live in low income families. Life expectancy for both men and women is similar to the England average[46].

Explanatory text and anticipated future trends:

The Health Survey for England monitors trends in the nation's health and care, providing survey, interview and medical examination based findings on a range of topics including wight, eating disorders, behaviours (including smoking and alcohol consumption) and health issues (includes diabetes, hypertension and high cholesterol). As a society, people are living longer – life expectancy in England reached 78.7 years for men and 82.7 for women in 2021 following the pandemic[47]. Inequalities however persist and the richest areas enjoy 19 more years in good health than those in poorest areas. The death rate for dementia and Alzheimer's disease, already the leading cause of death in

[44] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000094.html?area-name=Winchester

[45] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000224.html?area-name=Arun

[46] https://fingertips.phe.org.uk/static-reports/health-profiles/2019/E07000225.html?area-name=Chichester

[47] Public Health England (2021) *What the Health Profile for England shows us about the wider impacts of COVID-19 on health.* Available: https://ukhsa.blog.gov.uk/2021/09/15/what-the-health-profile-for-england-shows-us-about-the-wider-impacts-of-covid-19-on-health/

	women is anticipated to become the leading cause of death in men and the number of people with diabetes is expected to increase by a million – from just under 4 million in 2017 to almost 5 million in 2035[48]. Health profiles for LAs across the Plan Area show four LAs reporting generally better health than the England average and four reporting a varied picture.		
Indices of Multiple Deprivation	Reported at Local level only	Reported at Local level only	The following observation are made in respect of Indices of Multiple Deprivation Data. Local Authority (LA) data is presented in the first instance, where available however Small Area (SA) measures are also considered: ▪ Income Of the nine LAs intersecting the Plan Area, four LA's have an income deprived population of 10% or more. These are, Portsmouth, Gosport, Havant and Arun. Portsmouth has the greatest percentage population that are income deprived (13.4%) and Fareham has the lowest (5.6%)[49]. ▪ Employment 34% of towns in the South East region are in the lower deprivation working group. This trend is somewhat evident within the Plan Area with Fareham falling within a Low Deprivation Working Towns classification. A number of towns also fall within a Low Deprivation Residential Towns classification including Horndean, Stubbington and Emsworth[50].

[48] Public Health England (2018*) Current and future state of nation's health revealed.* Available: https://www.gov.uk/government/news/current-and-future-state-of-nations-health-revealed

[49] ONS (2021) *Exploring local income deprivation.* Available: https://www.ons.gov.uk/visualisations/dvc1371/#/E07000223

[50] ONS (2021) *Understanding towns in England and Wales: spatial analysis.* Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/understandingtownsinenglandandwalesspatialanalysis/2020-12-07

- Education

There is a broad range of relative deprivation within the Plan Area. SAs within towns including Fareham are among the least deprived decile in respect of Education however nearby Portsmouth is among the most deprived . Other areas considered most deprived include Gosport, Havant and Bognor Regis. Chichester performs comparatively more favourably as being less deprived with respect to education.

- Healthcare

Generally the study area performs well, with concentrations of increased deprivation largely limited to the most urbanised of Small Areas within Portsmouth, Gosport, Havant and Chichester. Small Areas within Horndean and Fareham are among the least deprived urban centres within the Study area

- Crime

In respect of Crime within the Study Area, the picture varies, though in most urban areas there is at least one Small Area considered among the most deprived. There are concentrations of Small Areas among the most deprived in Havant, Portsmouth and Gosport.

- Housing

Housing deprivation is a prevalent issue across the Plan Area, particularly in the more rural areas. There are however a number of urban areas that perform more favourably, north Horndean, Havant, Portsmouth and

			Gosport among areas that contain less deprived Small Areas (SA's)[51].
	Explanatory text and anticipated future trends: The English indices of deprivation measure relative deprivation in small areas in England called lower-layer super output areas. The index of multiple deprivation is the most widely used of these indices. There are seven distinct domains of deprivation; Income, Employment, Health and Disability, Education and Skill Training, Crime, Barriers to Housing and Services and Living Environment. There are 32,844 Small Areas in England and deprivation is ranked relatively from 1st (most deprived SA) to 32844TH (least deprived). Deprivation is however dispersed across England and 61% of local authority districts contain at least one of the most deprived neighbourhoods in England[52].		
Community Features	Reported at Local level only	Reported at Local level only	Within the Plan Area the following areas of greenspace have been identified: ▪ 104 no. Allotments; ▪ 47 no. Bowling Greens; ▪ 24 no. Cemeteries; ▪ 173 no. Public Park or Gardens; ▪ 25 no. Golf Courses; ▪ 79 Tennis Courts; ▪ 47 Bowling Greens; ▪ 182 Other Sports Facilities; ▪ 5 Country Parks; ▪ 54 no. Medical Care Sites; ▪ 1 no. National Parks; and ▪ 1 no. National Trail.
	Explanatory text and anticipated future trends: There is increasing evidence that provision of areas of greenspace contribute to mental and physical wellbeing however access varies greatly depending on where people live. The most economically deprived areas often have less available public greenspace, meaning people in those communities have fewer opportunities to benefit. The Committee on Climate Change found that the total proportion of urban		

[51] https://mapmaker.cdrc.ac.uk/#/index-of-multiple-deprivation?d=1111010&m=imde19_bhs&lon=0.8763&lat=51.1436&zoom=8.65

[52] MHCLG (2019) *The English Indices of Deprivation.* Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835115/IoD2019_Statistical_Release.pdf

	greenspace in England declined by 8 percentage points between 2001 and 2018. The Governments 25 Year Environmental Plan however acknowledges the essential role the natural environment and greenspace play in peoples physical and mental health and aims to improve population health and wellbeing by improving access to greenspace and delivering more good quality green infrastructure.

C.3 Material Assets

Table C-3 - Material Assets

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Water Treatment Works and Sewage Treatment Works	Reported at Local level only	Reported at Local level only	Portsmouth Water supply a domestic population of around 754,000 as well as industry, large defence establishments and varied commercial businesses[53]. The Area supplied extends through South East Hampshire and West Sussex from the River Meon in the West to the river Arun in the East, encompassing 868sq. km.
	Explanatory text and anticipated future trends: Development in the Plan Area Region will need to respond to capacity issues in terms of these types of infrastructure. In some instances, development may need to support the delivery of new infrastructure where capacity issues emerge. Without a strategic approach, capacity issues in the region may prove more difficult to address in manner which benefits the highest number of residents in the plan area. Water companies are also developing Drainage and Wastewater Management Plans which will set out how they maintain, improve, and increase capacity of their drainage network and wastewater services over the next 25 years. For the first time these plans will put the planning of drainage and wastewater services on a level footing with the planning they undertake for water resources. Of note is Southern Water's Hampshire Water Transfer and Water Recycling Project, elements of which would fall with the Portsmouth Water Area. The Project would create a new source of water to supply homes and businesses in Hampshire, so less water needs to be taken from the county's chalk stream rivers. The proposal is to tap into the highly treated wastewater that we currently waste and use advanced treatment techniques to turn it into purified recycled water.		
Authorised and Historic Landfill Sites	Reported at Local level only	Reported at Local level only	13 authorised landfill sites have been identified within the plan area: ▪ Paulsgrove Landfill ▪ Lidsey Landfill Site Extension ▪ Lidsey Landfill Site

[53] Portsmouth Water (2024) Final Business Plan 2025 to 2030. Available: https://www.portsmouthwater.co.uk/news/publications/business-plan-2025-2030/

			▪ Plainwood Close ▪ Boxgrove Quarry ▪ Wickham Vineyard ▪ North East of Wickham Vineyard ▪ Landfill at Raglington Farm ▪ Frith Lane ▪ Southleigh Landfill Site ▪ Maindell Pumping Station ▪ Lee-on-Solent Landfill ▪ Bedhampton Landfill Approximately 221 historic landfill sites have been identified within the plan area. These include large areas of reclaimed land in Paulsgrove, the disused Chichester and Arundel Canal, Tangmere Airfield Runways and Portsea Island.
	Explanatory text and anticipated future trends: The amount of waste sent to landfill across England has remained relatively stable since 2009 although peaks in 2019 for the South East and East of England demonstrate demand continues to be high. While the South East is a region of significant landfill capacity (c. 27 million m3 of inert waste and 24 million m3 of non-hazardous waste)[54] the number of non-hazardous landfill facilities is declining across the South East and a lack of new capacity being allocated in Local Plans is noted[55].		
Major Utilities (major gas mains, overhead lines etc.)	There are currently eight gas terminals operating across the UK, seven of these are located in England and Wales along the west and east coast[56]. National Grid is responsible for the transmission of gas	While there are no gas terminals in the South East Region, Grain LNG gas terminal is situated on the Isle of Grain, 37 miles east of London and provides security of supply in the South East of England. The terminal currently has a LNG storage capacity of one	While there are no gas terminals or pipelines within the Plan area, Lovedean electrical substation is within the Plan area situated west of Horndean and the A3 motorway. From the substation extent four 132Kv and

[54] https://www.letsrecycle.com/news/waste-to-landfill-in-england-jumps-4-in-2019/

[55] Surrey County Council (2018) *South East Waste Planning Advisory Group. None-hazardous landfill in the south East of England*. Available: https://www.surreycc.gov.uk/__data/assets/pdf_file/0009/360792/Annex_C_-_SEWPAG_Non-Hazardous_Landfill_Joint_Position_Statement_Final.pdf

[56] National Gas (2025) *Network Route Maps*. Available: https://www.nationalgas.com/our-businesses/network-route-maps

	across England. Currently there are four gas distribution networks across the UK[57].	million cubic metres and a throughput capability of 15 million tonnes per annum, equivalent to 20% of UK gas demand. In terms of storage capacity it is the largest LNG facility in Europe and the eighth largest in the world.	400Kv overhead lines which traverse the Plan area north, east and west / south west.
	Explanatory text and anticipated future trends: There are currently no gas terminals in the South East Region. There are areas of the South East Region within which gas pipelines and overhead power lines are present to facilitate supply. Without a strategic approach to development, it is less likely that development and new infrastructure is provided to complement the existing distribution of this infrastructure.		
Other Material assets	Reported at Local level only	Reported at Local level only	Within the Plan Area the following assets have been identified: ▪ 182 no. Other sports facilities ▪ 462 no. Play Space ▪ 183 no. Playing Field ▪ 173 no. Public Park or Garden ▪ 62 no. Registered Common Land ▪ 157 no. Religious Grounds ▪ 376 no. Religious Buildings ▪ 271 no. Schools ▪ 79 no. Tennis Courts ▪ 17 no. Transport Routes (Major Roads) ▪ 5 no. National designated cycle routes There are a number of railway tracks within the plan area connecting areas such as

[57] Energy Network Association, Gas Transmission Map. Available: https://www.energynetworks.org/operating-the-networks/whos-my-network-operator

			Chichester and Littlehampton, Fareham and Portsmouth and Petersfield and Havant. Portsmouth Port or Portsmouth Continental Ferry Port is a cruise, ferry and cargo terminal located in the city of Portsmouth.
	Explanatory text and anticipated future trends: As expected given the size of the Plan Area, it contains a wide range of material assets including recreational amenities, services, facilities and major infrastructure including road, rail, airports and ports, many of which concentrate or interact with the urban centres across the Plan Area. Of note, Portsmouth Port is anticipated to expand with over £33 million worth of investment earmarked from 2019. The expansion works are anticipated to lead to an increase in the number of cruise passengers at the Port from 50,000 to 15000. Of the investment £15 million is anticipated to be invested in improving facilities at Portico who operate two commercial quays within the Port.		
Open Green Space	The NPPF[58] puts the onus on local planning authorities to prepare an authority-wide, evidence-based greenspace strategy that includes an assessment of current greenspace provision. It also suggests LPAs use Local Green Space (LGS) as a designation to provide special protection against development for green areas of particular importance.	There are over 20,000 Open Green spaces within the South East region, with the main typologies as follows: ▪ Natural and Semi-natural Greenspace ▪ Outdoor Sports Facilities ▪ Parks and Gardens ▪ Amenity Greenspace ▪ Educational and Community Grounds	There are approximately 1,436 Open Green spaces within the Plan area with the main typologies reflecting the regional typologies: ▪ Natural and Semi-natural Greenspace ▪ Outdoor Sports Facilities ▪ Parks and Gardens ▪ Amenity Greenspace ▪ Educational and Community Grounds
	Explanatory text and anticipated future trends: Open space, which includes all open space of public value, can take many forms, from formal sports pitches to open areas within a development, linear corridors and country parks. It can provide health and recreation benefits to people living and working nearby; have an		

[58] MHCLG (2014) *Open space, sports and recreation facilities, public rights of way and local green space*. Available: https://www.gov.uk/guidance/open-space-sports-and-recreation-facilities-public-rights-of-way-and-local-green-space

ecological value and contribute to green infrastructure, as well as being an important part of the landscape and setting of built development, and an important component in the achievement of sustainable development[59].

Local authorities play a vital role in[60]:

- providing new, good quality greenspace that is inclusive and equitable
- improving, maintaining and protecting existing greenspace
- increasing green infrastructure within public spaces and promoting healthy streets
- improving transport links, pathways and other means of access to greenspace, and providing imaginative routes linking areas of greenspace for active travel
- Without a co-ordinated strategic approach to development and infrastructure, there is increased potential for planning decisions to result in inappropriate development, which could fragment existing networks of open space thereby reducing connectivity.

[59] MHCLG (2014) *Open space, sports and recreation facilities, public rights of way and local green space*. Available: https://www.gov.uk/guidance/open-space-sports-and-recreation-facilities-public-rights-of-way-and-local-green-space

[60] Public Health England (2020) *Improving access to greenspace – A new review for 2020*. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904439/Improving_access_to_greenspace_2020_review.pdf

C.4 Water Quality and Resources

Table C-4 - Water Quality and Resources

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Water Framework Directive (WFD)	In England, the quality status of water bodies assessed under the WFD in 2022 were[61]: Lakes: ▪ High – 9.92% ▪ Good – 22.21% ▪ Moderate – 55.29% ▪ Poor – 11.52% ▪ Bad – 1.32% ▪ Rivers and Canals: ▪ High – 2.58% ▪ Good – 30.26% ▪ Moderate – 49.05% ▪ Poor – 15.49% ▪ Bad – 2.62% ▪ Estuaries and Coastal: ▪ High – 20.64% ▪ Good – 54.86% ▪ Moderate – 22.64% ▪ Poor – 1.2%	In line with the WFD, River Basin Management Plans (RBMPs) are relevant for the South East Region and the status of waterbodies. Local government is involved in regulating, operating, influencing and undertaking projects in the river basin district (RBD) of the associated RBMP. The river basin districts which make up the South East region are Thames and the South East[62]. As of 2019, the status of surface and groundwater water bodies in the RBDs are as follows: *Surface Waters (including lakes, coastal, estuarine and rivers, canals and surface water transfers) ecological status*, Thames Water RBD[63] totalling 501: ▪ High – 0 ▪ Good – 31 ▪ Moderate – 334 ▪ Poor – 117 ▪ Bad – 19 South East RBD[64] totalling 282:	The river basin district which covers the plan area is the South East. There are three WFD surface water management and operational catchments intersecting the Plan area, as follows: ▪ Arun And Western Streams ▪ East Hampshire ▪ Test and Itchen ▪ There are five WFD Transitional waterbodies intersecting the Plan area, as follows: ▪ Pagham Lagoon ▪ Pagham harbour ▪ Langstone Harbour ▪ Portsmouth harbour ▪ Chichester Harbour ▪ There are four WFD Coast waterbodies that intersect or bound the Plan area, as follows:

[61] Joint Nature Conservation Committee (2024) *UK Biodiversity Indicators 2022 – B7. Surface water status*. Available: https://hub.jncc.gov.uk/assets/b6dbbc22-235a-4664-8192-3a178d32ffde

[62] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

[63] Environment Agency (2019) *Classifications data for Thames River Basin District.* Available: https://environment.data.gov.uk/catchment-planning/v/c3-plan/RiverBasinDistrict/6/classifications

[64] Environment Agency (2019) *Classifications data for South East River Basin District.* Available: https://environment.data.gov.uk/catchment-planning/v/c3-plan/RiverBasinDistrict/7/classifications

- Bad – 0.67%

- High – 0
- Good – 45
- Moderate – 172
- Poor – 55
- Bad – 10

Surface Waters (Chemical Status)

Thames Water RBD totalling 500:
- Good – 0
- Fail – 500
-

South East RBD totalling 281:
- Good – 0
- Moderate – 281

Groundwaters (Chemical Status),

Thames Water RBD totalling 47:
- Good – 18
- Poor – 29

South East RBD totalling 33:
- Good – 17
- Poor – 16

- Great Deep (not designated artificial or heavily modified)
- Sussex (heavily modified)
- Solent (heavily modified)
- Isle of Wight East (heavily modified)
-

The Plan area falls under the South East groundwater management catchment, within which eight WFD Groundwater bodies intersect the Plan area, as follows:

- Hants East Chalk
- Littlehampton Anticline West
- Itchen River Chalk
- Sussex Lambeth Group
- Chichester Chalk
- Hants East Lambeth Group
- Hants South East Bracklesham Group
- Hants South Lambeth Group

In respect of aquifer designation (Bedrock)[65] the British Geological Society Aquifer Designation Map (Bedrock) lists the 'Principal aquifer' designation across much of the area. Secondary A (Unproductive) designations are also present.

Titchfield Haven is the only WFD lake identified within the Plan Area.

[65] https://magic.defra.gov.uk/MagicMap.aspx

There are 21 WFD river waterbody catchment areas within/intersecting the Plan area. This includes the Lavant, Broad Rife, Bremere Rife, Bosham Stream, Pagham Rife, Alver, Main River Hamble, Moors Stream, Wallington below Southwick, Potwell Trib and Meon.

There are approximately 19 WFD waterbodies within the Plan Area which include Chichester Canal, Alver River and Meon River.

The WFD identifies Langstone Harbour, Chichester Harbour, Portsmouth Harbour, Central Solent and Spithead and Stokes Bay areas within the Plan Area as Shellfish Protected Areas.

Explanatory text and anticipated future trends:

The EU WFD is transposed into UK law through the following regulations: The Water Environment (WFD) (England and Wales) Regulations 2017 for England and Wales; the Water Environment and Water Services (Scotland) Act 2003 (WEWS Act) and The Water Environment (WFD) Regulations (Northern Ireland) 2003) for Northern Ireland.

The purpose of the Directive is to establish a framework for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. Groundwater is an important natural resource that supports river flows as well as ecological diversity in rivers, lakes and wetlands. It is also available for use, across the United Kingdom, for water supply by abstraction from boreholes, wells and springs.

The number of waterbodies assessed each year varies and has decreased from 10,761 in 2009 to 9,301 in 2019. There was a small decrease in the overall number of water bodies awarded high or good surface water status between 2009 and 2018. In 2019, 36% of

	surface water bodies assessed under the WFD in the UK were in high or good status. This this is the same as the 36% of surface water bodies assessed in 2009 and one percent higher than the 35% in 2014[66]. RBMPs are prepared in line with the WFD to protect and improve the quality of our water environment. The RBMPs support the government's framework for the 25-year environment plan and will allow local communities to find more cost-effective ways to take action to further improve our water environment[67]. As with most water bodies in England, there are a range of significant water management issues manifested in the South East, with pollution from towns, cities and transport noted as being an issue for 9% of water bodies. This includes Rainwater draining from roofs, roads and pavements carries pollutants, including grit, bacteria, oils, metals, vehicle emissions, detergent and road salt drains to surface water, including estuaries and coastal waters. Many homes and workplaces have 'misconnected' drains, meaning that dirty water often enters surface waters and groundwater rather than foul sewer drains. New development may result in physical modifications to water bodies – an issue affecting 43% of water bodies in the South East RBD. **Without a coordinated and sensitive approach to development and infrastructure there will be increased pressure on water resources and water quality in the South East Region.**		
Drinking Water Safeguard Zones **Source Protection Areas**	Drinking Water Safeguard Zones (DWSZs) are designated in England for any raw water sources that are 'at risk' of deterioration which would result in the need for additional treatment. These zones are areas where the land use is causing pollution of the raw water. Similarly, parts of the country at which there is increased risk of contamination to groundwater supplied from activities which might cause pollution are covered by Source Protection Zones (SPZs). The EA split SPZs into 3 main zones: inner (SPZ1), outer (SPZ2) and total catchment (SPZ3). A fourth zone (special interest) can sometimes also	25 surface water DWSZs fall within the South East Region and 100 groundwater DWSZs also. There are 1116 SPZs within the South East Region, predominately located across the centre and towards the south: ▪ SPZ 1 – 490 ▪ SPZ 1c – 99 ▪ SPZ 2 – 299 ▪ SPZ 2c – 94 ▪ SPZ 3 – 117	Three Drinking Water Safeguarding Zone (surface water) are of note in respect of the Plan Area. The Solent and South Downs DWSZ and Thames DWSZ marginally intersect the Plan Area to the North. Additionally, there are 12 Groundwater DWSZ distributed throughout the Plan Area collectively known as Solent and South Downs: ▪ SPZ 1 – 33 ▪ SPZ 1c – 13

[66] Joint Nature Conservation Committee (2020) *Surface Water Status – Datasheet*. Available: http://jncc.defra.gov.uk/docs/UKBI2015_DS_B7_Final2.xlsx

[67] DEFRA and Environment Agency (2019) *River basin management plans: 2015*. Available: https://www.gov.uk/government/collections/river-basin-management-plans-2015

be applied (further detail provided in the explanatory text below).	▪ SPZ 3c – 1 ▪ SPZ 4 – 16	▪ SPZ 2 – 19 ▪ SPZ 2c – 10 ▪ SPZ 3 – 5 ▪ SPZ 3c – 0 SPZ 4 – 3 Some of the largest are around Waterlooville, north of Chichester and at Madehurst.	

Explanatory text and anticipated future trends:

DWSZs are designated by the Environment Agency for areas in which action is needed to address pollution so that extra treatment of raw water can be avoided. Furthermore, groundwater provides around a third of drinking water in England and maintains the flow in many of the waterbodies in the country. SPZs are also designated by the Environment Agency. These designations cover groundwater sources such as wells, boreholes and springs which are used for public drinking water supply. Groundwater supplies a third of our drinking water. In some areas of southern England, up to 80% of the water you get from your taps is from groundwater[68].

Inner Zone (**SPZ1**) - This zone is 50 day travel time of pollutant to source with a 50 metres default minimum radius.

Outer zone (**SPZ2**) - This zone is 400 day travel time of pollutant to source. This has a 250 or 500 metres minimum radius around the source depending on the amount of water taken.

Total catchment (**SPZ3**) - This is the area around a supply source within which all the groundwater ends up at the abstraction point. This is the point from where the water is taken. This could extend some distance from the source point.

Extended zones beneath protective cover (**1c, 2c and 3c**) - Areas where there is protective geology cover, such as clay. This is because activities below the surface, such as deep drilling, could create pathways for pollutants to enter the groundwater.

Zone of special interest (**SPZ4**) - This zone is where local conditions require additional protection.

[68] https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs

	Without a coordinated approach to development and infrastructure there is increased potential for pollution to occur in areas where there is a risk of contamination of drinking water resulting. The location of Source Protection Zones and Drinking Water Safeguard Zones within the Plan Area are shown on Appendix D.		
Bathing Water Quality	As of 2024, in England, the quality status of bathing water areas assessed under the Bathing Waters Directive were[69]: ▪ Poor – 37; ▪ Sufficient – 29; ▪ Good – 95; ▪ Excellent – 289; and ▪ Closed – 1.	N/A	There are 17 designated bathing water sites within the plan area. Conditions are reported as follows[69]: ▪ Hill Head – Excellent ▪ Lee-on-Solent – Excellent ▪ Stokes Bay – Good ▪ Southsea East – Poor ▪ Eastney – Good ▪ Beachlands West – Excellent ▪ Beachlands Central – Excellent ▪ Eastoke – Excellent ▪ West Wittering – Excellent ▪ Bracklesham Bay – Excellent ▪ Selsey – Excellent ▪ Pagham – Good ▪ Bognor Regis (Aldwick) – Poor ▪ Bognor Regis East – Sufficient ▪ Felpham – Good ▪ Middleton-on-sea – Excellent ▪ Littlehampton – Good
	Explanatory text and anticipated future trends:		

[69] Environment Agency, Bathing Water Data. Available: http://environment.data.gov.uk/bwq/profiles/data.html?country=England

	Water quality at designated bathing water sites in England is assessed by the Environment Agency. From May to September, weekly assessments measure current water quality, and at a number of sites daily pollution risk forecasts are issued. Annual ratings classify each site as excellent, good, sufficient or poor based on measurements taken over a period of up to four years[69].

C.5 Flood Risk

Table C-5 - Flood Risk

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Location of Flood Zones	▪ The National Flood and Coastal Erosion Risk Management Strategy for England identifies that approximately 5.2 million, are at risk of flooding and coastal erosion[70]. Flood Zones 2 and 3 and located across the whole of England associated with river and coastal areas. Lowland areas are of particular risk as a consequence of floodplains being associated with the lower reaches of rivers[71].	▪ The Thames river basin district has over 227,000 people at high risk of surface water flooding and over 107,000 people are at high risk of flooding from rivers and the sea. It contains two primary flood risk areas (FRAs), the London and Medway, which are areas with higher risk of surface water flooding. There is also one partial flood risk area, South Essex, which is partly within the Thames river basin district. ▪ The South East river basin district consists of one primary flood risk area, Brighton and Hove, and there are over 31,000 people at high risk of surface water flooding and over 36,000 people at high risk of flooding from rivers and the sea. There has been notable and severe flooding occurring across the basin in recent years which resulted in significant impacts on communities, businesses and the natural environment[72].	Flood Zones 2 and 3 are located across the plan area. Portsmouth (Portsea Island) is almost entirely encircled by a flood alert/warning area. Other Flood Warning locations include at Hilsea, Eastern Portsmouth, Tipner and Stamshaw, Old Portsmouth, Southsea, and at Port Solent. There are approximately 2,430 flood defences within the plan area including natural defences, concrete sea walls, bank protection, natural bank and flood storage areas.
	Explanatory text and anticipated future trends:		

[70] Environment Agency (2020) *Flooding in England: A National Assessment of Flood Risk*. Available: https://assets.publishing.service.gov.uk/media/5f6b6da6e90e076c182d508d/023_15482_Environment_agency_digitalAW_Strategy.pdf

[71] Environment Agency (2017) *Flood Map for Planning (Rivers and Sea).* Available: http://apps.environment-agency.gov.uk/wiyby/37837.aspx

[72] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

In England, the flood risk (river and tidal) is categorised into three zones[73] for planning purposes (noting that the NPPF further subdivides flood zone 3 into 3a and Functional Floodplain 3b (land where water has to flow or be stored in times of flood):

- Flood Zone 1 – Land unlikely to be affected by flooding, with a less than 0.1% (less than 1 in 1000) chance of flooding each year.
- Flood Zone 2 – Land likely to be affected by a major flood, with up to a 0.1% (1 in 1000) chance of occurring each year.
- Flood Zone 3 – Land likely to be affected by flooding from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year, or from a river by a flood that has a 1 per cent (1 in 100) or greater chance of happening each year.

The risk of surface water flooding also needs to be considered:

- Very low risk area (less than 0.1% (1:1000)) chance of flooding.
- Low risk area (0.1% to 1% (1:1000 – 1:100)) chance of flooding.
- Medium risk area (1% to 3.3% (1:100 – 1:30)) chance of flooding.
- High risk area (3.3% (1:30)) or greater chance of flooding.

Estimates of flood risk from different sources across the UK vary, but it is known that the level of risk is substantial – England has approximately 5.2million properties at risk

While new development is expected to occur in the plan area making use of a sequential approach, **without a strategic approach, there is increased potential for the inappropriate siting of new development which may aggravate existing flood risk.**

Flood Zones in the Plan Area are shown in Appendix D.

[73] Environment Agency (2013) *Flood Map for Planning*. Available: http://apps.environment-agency.gov.uk/wiyby/37837.aspx

C.6 Soils, Geology and Land-Use

Table C-6 - Soils, Geology and Land-Use

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Agricultural Land Classifications	The Agricultural Land Classification system classifies land into five grades, with Grade 3 subdivided into Sub-grades 3a and 3b. The best and most versatile agricultural land is defined as Grades 1, 2 and 3a of the Agricultural Land Classification (ALC) system. As of 2012 it is estimated that of the farmland in England[74], Grades 1 and 2 together form about 21% of soils. The subgrade 3a also covers about 21% of farmland in England.	The Agricultural Land Classification of the region is predominately of Grade 2, Grade 3 and Grade 4 with pockets of urban and non-agricultural land. There are some areas with Grade 1, particularly around the south and south east coast.	Large swathes of the Plan area comprise Grades 3 and 4 under the Agricultural Land Classification. Large areas of Grade two persist towards the coast and 'non-agricultural' and 'urban' areas align with urbanised areas.

Explanatory Text and anticipated future trends:

ALC uses a grading system to assess and compare the quality of agricultural land at national, regional and local levels. It assesses the potential for land to support different agricultural uses, such as growing crops for food. It does not consider the land's current use and intensity of use. Natural England has a statutory role in advising local planning authorities about land quality issues.

A combination of climate, site and soil characteristics and their unique interaction determines the limitation and grade of the land. These affect the:

- range of crops that can be grown;
- yield of crop;
- consistency of yield; and
- cost of producing the crop.

[74] Natural England (2012) *Agricultural Land Classification: protecting the best and most versatile agricultural land (TIN049)*. Available: http://publications.naturalengland.org.uk/publication/35012

	When considering development proposals that affect agricultural land, development should aim to protect the best and most versatile (BMV) agricultural land and soils in England from significant, inappropriate or unsustainable development proposals. BMV agricultural land is graded 1 to 3a. The highest grade goes to land that[75]: ▪ gives the highest yield or output; ▪ has the widest range and versatility of use; ▪ produces the most consistent yield from a narrower range of crops; and ▪ requires less input. There is increased potential for development to occur in areas which would affect higher value agricultural land without a co-ordinated strategic approach. Agricultural land classifications are shown in Appendix D.		
Geological SSSIs and RIGS	There are over 4,100 SSSIs in England, covering about 1,102,455 ha[76]. Approximately 62% of all SSSIs in England are classified as being in favourable condition, with approximately 21% classed as unfavourable but recovering. As of June 2011, there were more than 1,200 SSSIs notified for geological interest in England and 300 in Wales. At that time, 72% of geological features were judged to be in favourable condition[77].	Around 708 Sites of Special Scientific Interest can be found in the South East region, this includes sites designated for both biological and geological reasons.	There are 41 classified SSSIs within the Plan Area. However it is important to note this figure includes sites designated for both biological and geological reasons. Those SSSIs protected for geological reasons include: ▪ Downend Chalk Pit ▪ Halnaker Chalk Pit ▪ Lee-on-the-Solent to Itchen Estuary includes the coastline at Lee-on-the-Solent which is also important for geological reasons, including for bird fossils.

[75] Natural England (2018) *Guide to assessing development proposals on agricultural land*. Available: https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land

[76] Natural England (2016) *Designated Sites View.* Available: https://designatedsites.naturalengland.org.uk/ReportFeatureConditionSummary.aspx?SiteType=ALL

[77] Defra (2011) Benefits of Sites of Special Scientific Interest

	Explanatory text and anticipated future trends: SSSIs represent the principal national designation for places of importance for biodiversity and geodiversity in the UK. The designation of areas as SSSIs attaches certain legal requirements to the management of these sites. In addition to designating areas as SSSIs when the land's wildlife is of special interest, Natural England will select and notify an area as a new SSSI when it believes the geology or landform is of special interest[78]. At a national level the majority of SSSIs are in favourable or unfavourable recovering condition. In the South East Region the majority of SSSIs area in favourable or unfavourable recovering condition. However, 13.2% of sites contain units that are in unfavourable condition which are reported to have not improved or are in decline from when previously reported on[79]. Geology in the South East is likely to face threats from development; human activities such as pollution, roads, disturbance, farming practices; loss of habitat; loss of food sources and a changing climate. Without a co-ordinated strategic approach to development and infrastructure is likely to increase the potential for inappropriate greenfield development to occur which could increase pressures on SSSIs designated for their geological importance.		
Contaminated Land	As of 2024[80], there are 54 special sites of contaminated land in England. These are sites that due to specific land uses, past activities or water pollution are passed from the local council to the Environment Agency to regulate. The National Planning Policy Framework places the onus with the developer and/or landowner for securing a safe land/development.	Reporting/mapping is not freely available at this level however EA Special Sites are present within the South East Region. There are also anticipated to be a large number of brownfield sites. Such sites are likely to present a potential risk in respect of contaminated land.	Reporting/mapping is not freely available and a search suggests there are no EA Special Sites within the Portsmouth area. It is anticipated that there are a large number of brownfield sites within the Plan Area which are also potentially contaminated.
	Explanatory text and anticipated future trends: Land is legally defined as 'contaminated land' where substances are causing or could cause:		

[78] Environment Agency (2020) *Contaminated Land Special Sites*. Available: https://data.gov.uk/dataset/e3770885-fc05-4813-9e60-42b03ec411cf/contaminated-land-special-sites

[79] Natural England (2016) Designated Sites View. Available: https://designatedsites.naturalengland.org.uk/

[80] Environment Agency (2020) *Contaminated Land Special Sites*. Available: https://data.gov.uk/dataset/e3770885-fc05-4813-9e60-42b03ec411cf/contaminated-land-special-sites

- Significant harm to people, property or protected species;
- Significant pollution of surface waters (for example lakes and rivers) or groundwater; and
- Harm to people as a result of radioactivity.

Land may be contaminated by various substances including:

- Heavy metals such as arsenic, cadmium and lead;
- Oils and tars;
- Chemical substances and preparations, like solvents;
- Gases;
- Asbestos; and
- Radioactive substances.

Some types of contaminated land are classed as 'special sites', which are then regulated by the Environment Agency in England once a local council has decided that an area is a special site[81]. The National Planning Policy Framework requires a risk assessment of land potentially affected by contamination and expects all investigations to be undertaken in accordance with established practices such as BS10175 (2002) 'Code of Practice for the Investigation of Potentially Contaminated Sites'.

[81] Environment Agency (2020) *Contaminated land*. Available at: https://www.gov.uk/contaminated-land

C.7 Air Quality

Table C-7 - Air Quality

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Air Quality Management Areas	There are approximately 405 AQMAs in England[82]. AQMAs are distributed throughout England, although they are principally located in areas of high population. The largest AQMAs are within major cities, including London, Birmingham, Manchester, Liverpool, Sheffield and Bristol. A significant amount of AQMAs are designated along major trunk roads and are generally associated with areas of high congestion.	There is approximately 126 AQMAs declared within the South East Region. A high proportion of the local authorities which fall within the South East region contain at least one AQMA and are predominately designated for Nitrogen dioxide (NO2) and Particulate Matter (PM10)[83].	Six AQMAs have been declared within the plan area (either in their entirety or partially), as follows: ▪ Chichester (St Pancras) ▪ Portsmouth No's 6, 7, 9, 11, 12 Each of these have been declared for NO2 exceedances. Additionally, two Air Quality Monitoring Sites have been identified within the Plan Area. These sites and their environment are: ▪ Portsmouth – Background Urban ▪ Portsmouth Anglesea Road – Traffic Urban
	Explanatory text and anticipated future trends: Since December 1997 each local authority in the UK must review and assess air quality in their area to determine performance against national air quality objectives. Where air quality objectives are not likely to be achieved an AQMA must be declared. AQMAs are typically associated with vehicle emissions, principally oxides of nitrogen (NOx), oxides of sulphur (SO2) and particulates (PM10). As such, AQMAs are predominantly associated with urban areas and the road network[84]). The quality of our air in the UK has improved considerably over the last decade. Road transport is a key source of many air pollutants, particularly in urban areas. There are two main trends in the transport sector working in opposite directions: new vehicles are becoming individually cleaner in response to European emission standards legislation, but total vehicle kilometres are increasing. Overall emissions of key air pollutants from road transport have fallen by about 50% over the last decade, despite increases in traffic, and are expected to reduce		

[82] Department for Environment and Rural Affairs (2016) *AQMAs interactive map*. Available: https://uk-air.defra.gov.uk/aqma/maps

[83] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

[84] Department for Environment and Rural Affairs (2016) *Current AQMAs by Source.* Available: https://uk-air.defra.gov.uk/aqma/summary

	by a further 25% over the next decade. This is mainly a result of progressively tighter vehicle emission and fuel standards agreed at European level and set in UK regulations[85]. **126 AQMAs have been declared in the South East region.** Note that there is also increasing recognition of the role solid fuel use in domestic properties plays in poor air quality, with wood burning making a significant contribution toward wintertime PM10 concentrations in many towns and cities. PM10 attributable to wood burning tends to peak during wintertime evenings and weekends. This suggests that wood is used principally as a secondary or 'lifestyle' fuel, rather than a primary source of heating. It also suggests that the majority of current air quality impacts are linked to simpler appliances such as open fires and stoves, rather than more complex appliances such as biomass boilers and Combined Heat and Power systems. Local authorities have experienced a number of gross pollution and nuisance cases linked to solid fuel appliances, and the frequency of these cases may be increasing. In many cases these problems occur when appliances are poorly installed, misused and/or inappropriate fuels are used[86].		
Noise Action Important Areas	In England, it has been estimated that the number of people immediately associated with the Important Areas (noise 'hotspots') identified for the major roads outside agglomerations* is around 57,000[87]. It has been estimated that the number of people immediately associated with the Important Areas (noise 'hotspots') identified for the major railways outside agglomerations is around 5,000[88]. It has been estimated that the approximate number of people immediately associated with the Important Areas identified for the 65	There are approximately 2,380 Noise Action Important Areas within the South East Region of England.	There are approximately 133 Noise Action Important Areas within the plan area. The source of noise in these areas is predominately roads, with the exception a small number in which the source is rail.

[85] Department for Environment and Rural Affairs (2011) *The Air Quality Strategy for England. Scotland, Wales and Northern Ireland - Volume 1*. Available: https://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1

[86] The institution of environmental sciences (2013) *Solid Fuel and Air Quality: An update for Local Authorities*. Available: https://www.environmental-protection.org.uk/wp-content/uploads/2013/07/Solid-Fuel-and-Air-Quality-Update-for-LAs-final-060413.pdf

[87] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813666/noise-action-plan-2019-roads.pdf

[88] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813664/noise-action-plan-2019-railways.pdf

agglomerations, with respect to road and rail noise, is around 130,000 and 13,000 respectively[89].

Within the 65 agglomerations identified in DEFRAs Noise Action Plan 2019, DEFRA notes that, with respect to road and rail noise, there are around 130,000 and 13,000 people directly associated with Important Areas[89].

Explanatory text and anticipated future trends:

Noise Action Plans are required by the Environmental Noise Directive. Noise Important Areas identify 'hotspot' locations where the highest 1% of noise levels at residential locations can be found and therefore highlight where further investigation should be directed.

*DEFRA defines an agglomeration as an area having a population in excess of 100,000 persons and a population density equal to or greater than 500 people per km2 and which is considered to be urbanised.

[89] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813663/noise-action-plan-2019-agglomerations.pdf

C.8 Climate Change

Table C-8 - Climate Change

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
Distribution of GHG emissions	In 2023, total UK net territorial greenhouse gas emissions were estimated to be 385 million tonnes carbon dioxide equivalent (MtCO2e), a decrease of 5% from the 2022 estimate of 405 MtCO2e. Total greenhouse gas emissions were 53% lower than they were in 1990. Carbon dioxide made up around 79% of the 2023 total.[90]	Based on the local authorities which fall within the South East region, the total carbon dioxide (CO2) emissions for 2022 across all sectors is estimated at 36,393.7 kilo tonnes ($ktCO_2e$)[91].	The following presents total carbon dioxide emissions in 2022 for each of the Local Authorities that intersect the Plan Area. Portsmouth is identified as having the highest emissions of all relevant LAs. ▪ Portsmouth: 689.1 $ktCO_2e$ ▪ East Hampshire: 478.9 $ktCO_2e$ ▪ Fareham: 407.6 $ktCO_2e$ ▪ Gosport: 186.1 $ktCO_2e$ ▪ Havant: 362.1 $ktCO_2e$ ▪ Winchester: 667.6 $ktCO_2e$ ▪ Arun: 466.8 $ktCO_2e$ ▪ Chichester: 502.1 $ktCO_2e$ **Total: 3760.3 ktCO2[92]**
	Explanatory text and anticipated future trends: The UK's yearly publication on GHG emissions provides the latest estimates of 1990-2022 UK territorial greenhouse gas emissions, which are presented in carbon dioxide equivalent units (CO2e). They show greenhouse gas emissions occurring within the UK's borders and cover the Kyoto "basket" of seven greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3).		

[90] Department for Energy Security and Net Zero (2025) *2023 UK Greenhouse Gas Emissions, Final Figures.* Available: https://assets.publishing.service.gov.uk/media/67a30e4f7da1f1ac64e5feb1/2023-final-greenhouse-gas-emissions-statistical-release.pdf

[91] Department for Energy Security and Net Zero (2025) *UK local authority and regional greenhouse gas emissions statistics, 2005 to 2022.* Available: https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-statistics-2005-to-2022

[92] Department for Energy Security and Net Zero (2025) *UK local authority and regional greenhouse gas emissions statistics, 2005 to 2022.* Available: https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-statistics-2005-to-2022

	The UK has domestic targets for reducing greenhouse gas emissions under the Climate Change Act 2008 (CCA). The CCA established a long-term legally binding framework to reduce emissions, initially committing the UK to reducing emissions by at least 80% below 1990/95 baselines by 2050. In June 2019, following the IPCC's Special Report on Global Warming of 1.5°C and advice from the independent Committee on Climate Change, the CCA was amended to commit the UK to achieving a 100% reduction in emissions (to net zero) by 2050. <u>Anticipated Future Trends:</u> Recent trends illustrate that GHG emissions are primarily being reduced in the energy sector due to the change in fuel mix for electricity generation, in particular a reduction in the use of goal and gas. It is expected that this will continue over the next few years and decades in favour of more renewable and low-carbon sources. It can also be expected that GHG emissions in the transportation sector are likely to decrease with the increasing availability and feasibility of electric vehicles and business fleets.	
Contribution of sectors to GHG emissions	In 2023, 29% of net greenhouse gas emissions in the UK were estimated to be from the domestic transport sector, 20% from buildings and product uses, 14% from industry, 12% from agriculture, and 11% from electricity supply. The other 13% was attributable to the remaining sectors: fuel supply, waste, and the LULUCF sector.[93] Electricity supply delivered the largest reduction in emissions from 2022 to 2023, as higher electricity imports and reduced electricity demand decreased gas use in UK power stations.	The transport sector contributed the highest proportion of emissions to the total in 2022 at 16,463.3 ktCO2followed by the domestic sector 11383.6 ktCO2. The LULUCF sector is estimated to be responsible for the removal 1705.5ktCO2[94].	The following presents total transport sector related emissions for each of the LAs intersecting the Plan Area in 2022. Winchester is identified as emitting the most in respect of transport: ▪ Portsmouth: 248.1 ktCO2 ▪ East Hampshire: 274.1 ktCO2 ▪ Fareham: 183.7 ktCO2 ▪ Gosport: 55.6 ktCO2 ▪ Havant: 145.7 ktCO2 ▪ Winchester: 387.9 ktCO2 ▪ Arun: 177.8 ktCO2 ▪ Chichester: 247.8 ktCO2
	Explanatory text and anticipated future trends:		

[93] Department for Energy Security and Net Zero (2025) *2023 UK Greenhouse Gas Emissions, Final Figures*. Available: https://assets.publishing.service.gov.uk/media/67a30e4f7da1f1ac64e5feb1/2023-final-greenhouse-gas-emissions-statistical-release.pdf

[94] Department for Energy Security and Net Zero (2024) *UK local authority and regional greenhouse gas emissions statistics, 2005 to 2022*. Available: https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-statistics-2005-to-2022

The UK's yearly publication on GHG emissions provides the latest estimates of 1990-2022 UK territorial greenhouse gas emissions, which are presented in carbon dioxide equivalent units (CO2e). They show greenhouse gas emissions occurring within the UK's borders and cover the Kyoto "basket" of seven greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3).

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The CCA also introduced carbon budgets, which set legally binding limits on the total amount of greenhouse gas emissions the UK can emit for a given five-year period. The first carbon budget ran from 2008-12. In 2014, the UK confirmed that it had met the budget, with emissions 36 MtCO2e below the cap of 3,018 MtCO2e. The second carbon budget ran from 2013-17. In 2019, the UK confirmed that it had met the budget, with emissions 384 MtCO2e below the cap of 2,782 MtCO2e. Additionally, final emissions data confirm that the UK has achieved its Third Carbon Budget, covering the period 2018 to 2022. The UK has so far outperformed its budgets. But progress is slowing, and the country is not on track to meet its future budgets or the overall reduction target, according to the 2021 Progress Report to Parliament by the Committee on Climate Change.

UK five-year carbon budgets

Budgetary Period	Carbon Budget ($MtCO_2e$)
1st carbon budget (2008 to 2012)	3,018
2nd carbon budget (2013 to 2017)	2,782
3rd carbon budget (2018 to 2022)	2,544
4th carbon budget (2023 to 2027)	1,950
5th carbon budget (2028 to 2032)	1,725
6th carbon budget (2033 to 2037)	965

Source: Climate Change Committee

Anticipated Future Trends:

Recent trends illustrate that GHG emissions are primarily being reduced in the energy sector due to the change in fuel mix for electricity generation, in particular a reduction in the use of goal and gas. It is expected that this will continue over the next few years and decades in

	favour of more renewable and low-carbon sources. It can also be expected that GHG emissions in the transportation sector are likely to decrease with the increasing availability and feasibility of electric vehicles and business fleets.		
Predicted changes to temperature and weather patterns	As of August 2022, the following climate change impacts are predicted for the UK[95]: ▪ Increased warmer, wetter winters ▪ Increased hotter, drier summers ▪ Increased frequency and intensity of extreme weather conditions such as flooding and drought ▪ In the last decade sea levels around the UK rose on average by over 3mm a year.	The projected changes in temperature and precipitation for the south east of England by the 2050s (2040-2069), under the RCP8.5 scenario (high emissions scenario) are as follows; ▪ Annual mean temperatures are projected to increase by 2.0°C. Summer temperatures are projected to see the largest increase by 2.6°C and winter temperatures by 1.7°C ▪ Annual mean precipitation is projected to decrease by 1.1%. Seasonal variability is projected with a 22.9% decrease in precipitation during summer months and an increase of 11.5% during winter months.	The projected changes in temperature and precipitation by the 2050s are anticipated to be in line with that reported at a Regional level.
	Explanatory text and anticipated future trends: In December 2015, climate change issues were highlighted during the UN Conference of the Parties (COP) 21. At COP21, 189 parties ratified The Paris Agreement. The Paris Agreement's long-term temperature goal is to keep the increase in global average temperature to well below 2 °C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5 °C, recognising that this would substantially reduce the risks and impacts of climate change globally. It also aims to increase the ability of parties to adapt to the adverse impacts of climate change and make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."		

[95] Met Office (2022) *UK Climate Projections headline findings.* Available: ukcp18_headline_findings_v4_aug22.pdf (metoffice.gov.uk)

	Under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. No mechanism forces a country to set a specific emissions target by a specific date, but each target should go beyond previously set targets.

C.9 Historic Environment

Table C-9 - Historic Environment

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
World Heritage Sites	The UK currently has 35 World Heritage Sites and more sites progressing towards World Heritage Site status.[96] To be included on the World Heritage List, sites must be of "Outstanding Universal Value". This is demonstrated by meeting one of the ten selection criteria. These criteria are divided between those of cultural and natural importance. Within England the majority of sites have been notified for their cultural value[97].	There are two World Heritage Sites in the South East Region: ▪ Blenheim Palace ▪ Canterbury Cathedral, St. Augustine's Abbey and St. Martin's Church	There are no World Heritage Sites within the plan area.
	Explanatory text and anticipated future trends: World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention and the sites are designated for their globally important cultural or natural interest and require appropriate management and protection measures[98]. The first World Heritage Sites within the UK were designated in 1986. Sites can continue to be nominated, with the last site on the UK mainland being the Forth Rail Bridge, designated in 2015[98]. Sites are inscribed by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). In England the Department for (DCMS) acts as the UK 'State Party' which is responsible for nominating new sites. The DCMS receives advice from Historic England in this regard[99]. The Outstanding Universal Value of a World Heritage Site indicates its importance as a heritage asset of the highest significance. This is to be taken into account by the relevant authorities in plan-making and determining planning applications[100].		

[96] World Heritage UK (2024) *World Heritage Sites.* Available: Welcome to World Heritage UK | World Heritage UK

[97] UNESCO (2020) *About World Heritage: United Kingdom of Great Britain and Northern Ireland.* Available: https://whc.unesco.org/en/statesparties/gb

[98] UNESCO (2017) *World Heritage Convention - United Kingdom of Great Britain and Northern Ireland*. Available: http://whc.unesco.org/en/statesparties/gb

[99] Historic England (2020) *World Heritage.* Available: https://historicengland.org.uk/advice/planning/international/world-heritage

[100] MHCLG (2019) *Planning practice guidance. Further guidance on World Heritage Sites. Paragraph: 028 Reference ID: 18a-028-20190723.* Available: https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment#World-Heritage-Sites

	Of the sites in England, none have been placed on the List of World Heritage in Danger. The list presently comprises 56 sites in total worldwide. These are sites at which conditions are present to threaten the characteristics for which a site was placed on the World Heritage List[101]. Additional development in the South East Region may be **inappropriately located or designated to pose a risk to the World Heritage Sites as well as their setting.** Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result.		
Scheduled Monuments	As of 2024, there are almost 20,000 Scheduled Monuments located throughout England[102]. The criteria for determining whether Scheduled Monuments are of national importance are guided by the Principles of Selection laid down by the Secretary of State for Digital, Culture, Media and Sport, covering the basic characteristics of monuments[103]. They are: ▪ Period ▪ Rarity ▪ Documentation/Finds ▪ Group value ▪ Survival/condition ▪ Fragility/vulnerability ▪ Diversity ▪ Potential	There are 2,691 Scheduled Monuments in the South East Region.	There are 179 scheduled monuments in the Plan Area. 25 of these are on the Heritage at Risk Register.
	Explanatory text and anticipated future trends:		

[101] UNESCO (2025) *List of World Heritage in Danger.* Available at: https://whc.unesco.org/en/danger

[102] Historic England (2020) *Scheduled Monuments.* Available: https://www.historicengland.org.uk/listing/what-is-designation/scheduled-monuments/

[103] Department for Culture, Media and Sport (2013) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249695/SM_policy_statement_10-2013__2_.pdf

	Scheduling is the selection of nationally important archaeological sites which are legally protected. The monitoring and identification of sites is undertaken by Historic England. Scheduled Monuments cover the whole range of archaeological sites and are not always visible or above ground sites. The condition of Scheduled Monuments is monitored as part of Historic England's 'Heritage at Risk' programme. Local government archaeological services, plus independent national and local heritage organisations and community groups, can also play important roles in their curation, plus that of non-scheduled but nationally important monuments[104]. Additional development in the South East Region may be **inappropriately located or designed to pose a risk to the significance of scheduled monuments (including the contribution to significance made by their settings).** Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result. The locations of Scheduled Monuments are shown in Appendix D.		
Listed Buildings and Conservation Areas	There are over 370,000 entries for listed buildings on the National Heritage List for England (NHLE). Conservation Areas are designated for their special architectural and historic interested and were first designated in 1967 with nearly 10,000 in England[105].	There are 77,018 listed buildings in the South East Region, these are graded as follows: ▪ Grade I – 1,744 ▪ Grade II – 71,307 ▪ Grade II* – 3,962 There are approximately 1,672 Conservation Areas in the South East Region.	There are 3,840 listed buildings in the Plan Area, which are graded as follows: ▪ Grade I – 90 ▪ Grade II – 3,569 ▪ Grade II* – 180 18 of which are on the Heritage at Risk Register. The Plan Area has 122 Conservation Areas. The first areas were designated in 1969, with the most recent being 2005. Six of which are on the Heritage at Risk Register.
	Explanatory text and anticipated future trends: Listing of buildings is concerned with recognising the buildings special architectural and historic interest, with a view to protecting the building, under the planning system for future generations to enjoy. All buildings built before 1700 which survive in anything like their original condition are listed, as are most of those built between 1700 and 1840. Particularly careful selection is required for buildings from the period after 1945. Usually a building has to be over 30 years old to be eligible for listing.		

[104] Department for Culture, Media and Sport (2013) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/249695/SM_policy_statement_10-2013__2_.pdf

[105] Historic England (2025) *Designating and Managing a Conservation Area*. Available: https://historicengland.org.uk/advice/planning/conservation-areas/

	Buildings are considered by the Secretary of State (for Digital, Culture, Media and Sport) and where they are deemed to be of special architectural or historic interest they can be included on the list. The Planning (Listed Buildings and Conservation Areas) Act 1990 sets out the designation regime[106]. There are three categories of listed building: ▪ Grade I buildings are of exceptional interest, only 2.5% of listed buildings are Grade I ▪ Grade II* buildings are particularly important buildings of more than special interest; 5.8% of listed buildings are Grade II* ▪ Grade II buildings are of special interest; 91.7% of all listed buildings are in this class and it is the most likely grade of listing for a homeowner. Local authorities have a positive legal duty to designate conservation areas where parts of their own area are of special architectural or historic interest. In exceptional circumstances, where the local authority has not done so, the Secretary of State (for Digital, Culture, Media and Sport) may designate a conservation area anywhere in England. The Planning (Listed Buildings and Conservation Areas) Act 1990 also sets out the requirement for local authority's proposals for the preservation and enhancement of conservation areas. Additional development in the South East Region may be **inappropriately located or designed to pose a risk to the significance of listed buildings and conservation areas (including the contribution to significance made by their settings).** Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result. The locations of listed buildings and conservation areas in the plan area are shown in Appendix D.		
Historic Battlefields	As of 2025, there are 47 Historic Battlefields in England[107]. Of these, three battlefields are on the Heritage at Risk Register[108]. The purpose of the Register of Historic Battlefields in England is to provide protection through the planning system and to promote a better understanding of the significance and public enjoyment of these sites. If the site of a battle is to merit registration it has to have been an	The South East region contains six Registered Battlefields: ▪ Battle of Chalgrove 1643 ▪ Battle of Cheriton 1644 ▪ Battle of Cropredy Bridge 1644 ▪ Battle of Hastings 1066 ▪ Battle of Lewes 1264 ▪ Battle of Newbury 1643	There are no Historic Battlefields in the Plan Area.

[106] Historic England (2020) Listed Buildings Identification and Extent. Available: https://historicengland.org.uk/advice/hpg/has/listed-buildings/

[107] Historic England (2020) *The List [Search criteria – Battlefields]*. Available: https://historicengland.org.uk/listing/the-list/advanced-search-results

[108] Historic England (2020) *Heritage at Risk Register [Search criteria – Battlefields]*. Available: https://historicengland.org.uk/advice/heritage-at-risk/search-register/results/?advsearch=1&at=Battlefield&searchtype=harsearch

	engagement of national significance, and to be capable of close definition on the ground.		
	Explanatory text and anticipated future trends: Historic battlefields are designated by Historic England as conferred under the Historic Buildings and Ancient Monuments Act, 1983 (as amended).		
Parks and Gardens	Established in 1984, Historic England's 'Register of Parks and Gardens of Special Historic Interest in England' includes over 1,700 designed landscapes (such as parks and gardens) assessed to be of particular significance.[109] There are 103 registered parks and gardens on the Heritage at Risk (HAR) Register.	There are 391 Registered Parks and Gardens within the South East Region. These are graded as follows; ▪ Grade I – 42 ▪ Grade II - 228 ▪ Grade II* – 121	There are 14 registered Historic Parks and Gardens in the Plan Area: ▪ Grade I – 1 ▪ Grade II – 8 ▪ Grade II* – 5 None of these are identified as being on the Heritage at Risk Register.
	Explanatory Text and anticipated future trends: The purpose of Registers of Historic Parks and Gardens in England is to encourage the protection of gardens, grounds and other open spaces which are of historic importance. The majority of sites registered are, or started life as, the grounds of private houses, but public parks and cemeteries form important categories too. The emphasis of the Register is on 'designed' landscapes, rather than on planting or botanical importance. The various types of designed landscape included on the Register are designated in the following four themes: ▪ Rural Landscapes ▪ Urban Landscapes ▪ Landscapes of Remembrance ▪ Institutional Landscapes There are also numerous unregistered parks and gardens within the plan area. Whilst they are non-statutory designations, they remain relevant considerations for local planning and developments. The plan area contains numerous heritage assets some of which are on Historic England's Heritage at Risk Register, although none of these are Registered Parks and Gardens. **Additional development in the South East Region may be inappropriately located or designed to pose a risk to the significance of registered parks and gardens (including the contribution to significance made by**		

[109] Historic England (2025) *What Are Registered Parks and Gardens?* Available: https://historicengland.org.uk/listing/what-is-designation/registered-parks-and-gardens/

	and their settings). Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result. Locations of Parks and Gardens are shown in Appendix D.		
Protected Wrecks	There are 57 Protected Wrecks within England.	Two Protected Wreck sites has been identified within the South East Region: ▪ Langdon Bay ▪ Needles Site	No Protected Wrecks have been identified within the Plan Area.
	Explanatory Text and anticipated future trends: The Protection of Wrecks Act (1973) allows the Government to designate a wreck to prevent uncontrolled interference. Designated sites are identified as being likely to contain the remains of a vessel, or its contents, which are of historical, artistic, or archaeological importance[110].		
Non-designated Heritage Assets	Non-designated heritage assets are locally-identified 'buildings, monuments, sites, places, areas or landscapes identified by plan making bodies as having a degree of heritage significance meriting consideration in planning decisions but which do not meet the criteria for designated heritage assets'. It is important to note that some non-designated heritage assets are equivalent to designated heritage assets in terms of significance. Non-designated heritage assets can be identified in a number of ways, including:[111] ▪ Local heritage lists ▪ Local and Neighbourhood Plans ▪ Conservation area appraisals and reviews ▪ Decision-making on planning applications There is no single, definitive national count of non-designated heritage assets in England because they are identified and listed by local authorities, with criteria and processes varying by area. There are Non-designated Heritage Assets within the Plan Area, although these are reported each of the local authorities in different ways.		
Historic Landscape Characterisation (HLC)	HLC across England include: ▪ Civic Amenities ▪ Civic Provision	**Reported at national and local level only.**	The broad types of HLC identified within the Plan Area are as follows: ▪ Industry ▪ Recreation

[110] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

[111] Historic England (2021) *Local Heritage Listing: Identifying and Conserving Local Heritage Historic England Advice Note 7 (Second Edition)* https://historicengland.org.uk/images-books/publications/local-heritage-listing-advice-note-7/heag301-local-heritage-listing/

	▪ Commerce ▪ Communications & Movement ▪ Cultural Topography ▪ Enclosure ▪ Fisheries & Aquaculture ▪ Industry ▪ Military ▪ Orchards and Horticulture ▪ Ornamental ▪ Recreation and Leisure ▪ Rural Settlement ▪ Unimproved Land ▪ Urban Settlement ▪ Valley Floor and Wetland ▪ Woodland	▪ Enclosed Agriculture ▪ Woodland And Forestry ▪ Unimproved Land ▪ Settlement ▪ Military ▪ Water Supply And Flood Defence ▪ Orchards Horticulture And Aquaculture ▪ Communications
	Explanatory Text and anticipated future trends: Historic landscape characterisation (HLC) can be used to help secure good quality, well designed and sustainable places. It is a method of identification and interpretation of the varying historic character within an area that looks beyond individual heritage assets as it brigades understanding of the whole landscape and townscape into repeating HLC Types. HLC provides society with numerous benefits though recognition that the historic environment contributes everywhere to our sense of place and need for well-being, good growth and well-informed and carefully managed change and carefully designed place-making.[112]	

[112] Historic Environment (2025) *Historic Landscape Characterisation*. Available at: https://historicengland.org.uk/research/methods/characterisation/historic-landscape-characterisation/

C.10 Landscape

Table C-10 - Landscape

	International / National (UK & England)	Regional (South East Region)	Local (Plan Area)
National Parks	There are 10 National Parks in England[113]: ▪ Broads ▪ Dartmoor ▪ Exmoor ▪ Lake District ▪ New Forest ▪ Northumberland ▪ North York Moors ▪ Peak District ▪ South Downs ▪ Yorkshire Dales	New Forest and South Downs National Parks are within the South East Region. ▪ New Forest became designated in 2005 and South Downs in 2010. New Forest National Park covers an area of 566km^2 and is made up of ancient woodland, open heathlands and coastline. ▪ South Downs National Park is designated for its rolling hills, picturesque towns and villages, and dramatic cliffs[114].	There is one national park in the Plan Area - South Downs National Park, designated on 31st March 2010. The National Park was also granted International Dark Sky Reserve status, making it one of the best places in the country to view the night sky - one of only 16 such Reserves in the world. South Downs National Park is home to a number of globally important habitats, including lowland heath, described as rarer than rainforest. Woolmer Forest, a lowland heath site, is the only place in the country to have all 12 of the UK's native amphibian and reptile species. Around 4% of the land in the National Park is chalk grassland.
	Explanatory text and anticipated future trends: In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales. In addition, the Environment Act 1995 requires relevant authorities to have regard for nature conservation. The designation of National Parks is an ongoing process with two being added in England since 2008 (South Downs and Broads).		
National Landscapes (formerly known as Areas of Outstanding Natural Beauty)	As of November 2023, all designated Areas of Outstanding Natural Beauty in England	There are nine National Landscapes within the South East region: ▪ Kent Downs ▪ High Weald	There is one National Landscape within the plan area - Chichester Harbour.

[113] National Parks UK (2025) Your *National Parks*. Available: https://www.nationalparks.uk/parks/

[114] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

and Wales became known as 'National Landscapes'[115].

There are 46 National Landscapes within the UK[116].

There are 34 National Landscapes located within England[117]:

- Arnside & Silverdale
- Blackdown Hills
- Cannock Chase
- Chichester Harbour
- Chilterns
- Cornwall
- Cotswolds
- Cranborne Chase and West Wiltshire Downs
- Dedham Vale
- Dorset
- East Devon
- Forest of Bowland
- Howardian Hills
- High Weald
- Isle of Wight
- Isles of Scilly
- Kent Downs
- Surrey Hills
- Chichester Harbour
- Isle of Wight
- Chilterns
- North Wessex Downs
- Cotswolds
- Cranborne Chase and West Wiltshire Downs

[115] National Landscapes Association (2023) *Welcome to National Landscapes.* Available: https://national-landscapes.org.uk/news/welcome-to-national-landscapes

[116] National Landscapes Association (2024) *About*. Available: https://national-landscapes.org.uk/about

[117] National Landscapes Association (2024) *National Landscapes*. Available: https://national-landscapes.org.uk/national-landscapes

- Lincolnshire Wolds
- Malvern Hills
- Mendip Hills
- Norfolk Coast
- North Devon
- North Pennines
- North Wessex Downs
- Nidderdale
- Northumberland Coast
- Quantock Hills
- Shropshire Hills
- Solway Coast
- South Devon
- Suffolk Coast and Heaths
- Surrey Hills
- Tamar Valley
- Wye Valley (England and Wales)

Explanatory text and anticipated future trends:

In England, the primary purpose of the National Landscape designation is to conserve natural beauty – which by statute includes wildlife, physiographic features and cultural heritage as well as the more conventional concepts of landscape and scenery. Account is taken of the need to safeguard agriculture, forestry and other rural industries and the economic and social needs of local communities. Particular regard should be paid to promoting sustainable forms of social and economic development, that in themselves conserve and enhance the environment. These areas have equivalent status to National Parks as far as conservation is concerned.

National Landscapes are designated under the National Parks and Access to the Countryside Act 1949, amended in the Environment Act 1995. The Countryside and Rights of Way Act 2000 clarifies the procedure and purpose of designating National Landscapes.

By 2030, National Landscapes aim that within their boundaries: at least 200,000 hectares of the most valuable natural areas (SSSIs), will be in favourable condition; 100,000 hectares of wildlife-rich habitat outside of SSSIs will be created or restored; and 36,000 hectares of woodland, will have been planted or allowed to regenerate. National Landscapes Partnerships will also focus on habitat restoration to

	ensure the protection of some of our most endangered species and increase their work to help more people to enjoy time spent in beautiful places[118]. There is a need to **protect landscape character (including that of the National Landscapes) from potential threats. This includes issues such as inappropriate development, lack of appropriate management and climate change.** Without a co-ordinated strategic approach to development and infrastructure degradation of the special qualities of the National Landscapes within the region is more likely to result. Locations of National Landscapes in the Plan Area are shown in Appendix D.		
Landscape Character Areas	Natural England has produced National Character Area (NCAs) Profiles[119] which divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries. They can be used for planning and development.	There are 29 NCAs within the South East Region.	There are 5 NCAs within the plan area: ▪ Hampshire Downs; ▪ Wealden Greensand; ▪ South Downs; ▪ South Coast Plain; and ▪ South Hampshire Lowlands.
	Explanatory text and anticipated future trends: Landscape Character Areas or Landscape Character Assessments encompass various aspects of landscape, biodiversity, heritage, cultural and geological features. These are non-statutory and used as an aid in the planning process and for decision making. Each LCA profile produced by Natural England includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future. There is a need to protect landscape character from potential threats. This includes issues such as inappropriate development, lack of appropriate management and climate change. Without a co-ordinated strategic approach to development and infrastructure degradation of the special qualities of the protected landscapes within the region is more likely to result. Locations of the NCAs in the Plan Area are shown in Appendix D.		

[118] National Landscapes Association (2024) *Welcome to National Landscapes*. Available: https://national-landscapes.org.uk/wlcome-to-national

[119] Natural England (2014) *National Character Area profiles: data for local decision making.* Available: https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making

Green Belt and Urban areas	As of 2021 the extent of land designated as Green Belt in England was estimated at 1,634,760 hectares, around 12.5% of the land area of England[120]. Land designated as Green Belt in England is distributed around the following 16 urban cores: ▪ London; ▪ Merseyside and Greater Manchester; ▪ South and West Yorkshire; ▪ Birmingham; ▪ Tyne and Wear; ▪ Bath and Bristol; ▪ Derby and Nottingham; ▪ Stoke-on-Trent; ▪ South West Hampshire; ▪ Oxford; ▪ York; ▪ Cambridge; ▪ Cheltenham and Gloucester; ▪ Blackpool; ▪ Carnforth, Lancaster and Morecambe; and ▪ Burton-upon-Trent and Swadlincote.	South East Region has the largest area of land designated as Green Belt with 305,280 hectares, which is equivalent to 16.0% of total land area[121]. The Green Belt around London is an important aspect of the South East region landscape which exists to prevent urban sprawl[122].	No areas designated as Green Belts have been identified within the plan area. There are a number of areas of Urban Grade Agricultural Land Classification, predominately located at the south of the Plan Area.
	Explanatory text and anticipated future trends:		

[120] MHCLG (2024) *Local Authority Green Belt: England 2023-24*. Available: https://assets.publishing.service.gov.uk/media/674ee806d7e2693e0e47cfb9/Green_Belt_statistics_for_England_2023-24_-_Factsheet.pdf

[121] MHCLG (2024) *Local authority green belt: England 2023-24 - statistical release*. Available: https://www.gov.uk/government/statistics/local-authority-green-belt-statistics-for-england-2023-to-2024/local-authority-green-belt-england-2023-24-statistical-release

[122] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

	The National Planning Policy Framework attaches great importance to Green Belts. 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 their permanence[123]. In 2021, 180 out of 314 local authorities have some land designated as Green Belt. Green Belt serves five purposes: ▪ to check the unrestricted sprawl of large built-up areas; ▪ to prevent neighbouring towns merging into one another; ▪ to assist in safeguarding the countryside from encroachment; ▪ to preserve the setting and special character of historic towns; and ▪ to assist in urban regeneration, by encouraging the recycling of derelict and other urban land. Once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land. Across England between March 2023 and March 2024 there was a decrease of 3,540 hectares (0.2%) in the area of land designated as Green Belt. In spite of its strong protection through national planning policy Green Belt may come under pressure as areas are targeted for potential release and development in inappropriate locations as housing needs increase. There is increased potential for Green Belt land that **has not been identified as suitable for strategic growth to be subject to development without a co-ordinated strategic planning approach.**		
Woodland Priority Habitat	As of October 2021, 39% of total priority habitats in England are classified as deciduous woodland[124]. The majority of woodland priority habitats are located in the South East of England.	Priority habitats make up 16.6% of the South East region equating to a total of 39,5109ha. Deciduous woodland accounts for the highest percentage of priority habitat in the region[125].	Deciduous woodland accounts for the highest percentage of priority habitat within the plan area. Other key habitat types include coastal and floodplain grazing marsh and lowland calcareous grassland.
	Explanatory text and anticipated future trends:		

[123] MHCLG (2020) *Local Authority Green Belt: England 2019-20*. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916232/England_Green_Belt_Statistics_2019-20.pdf

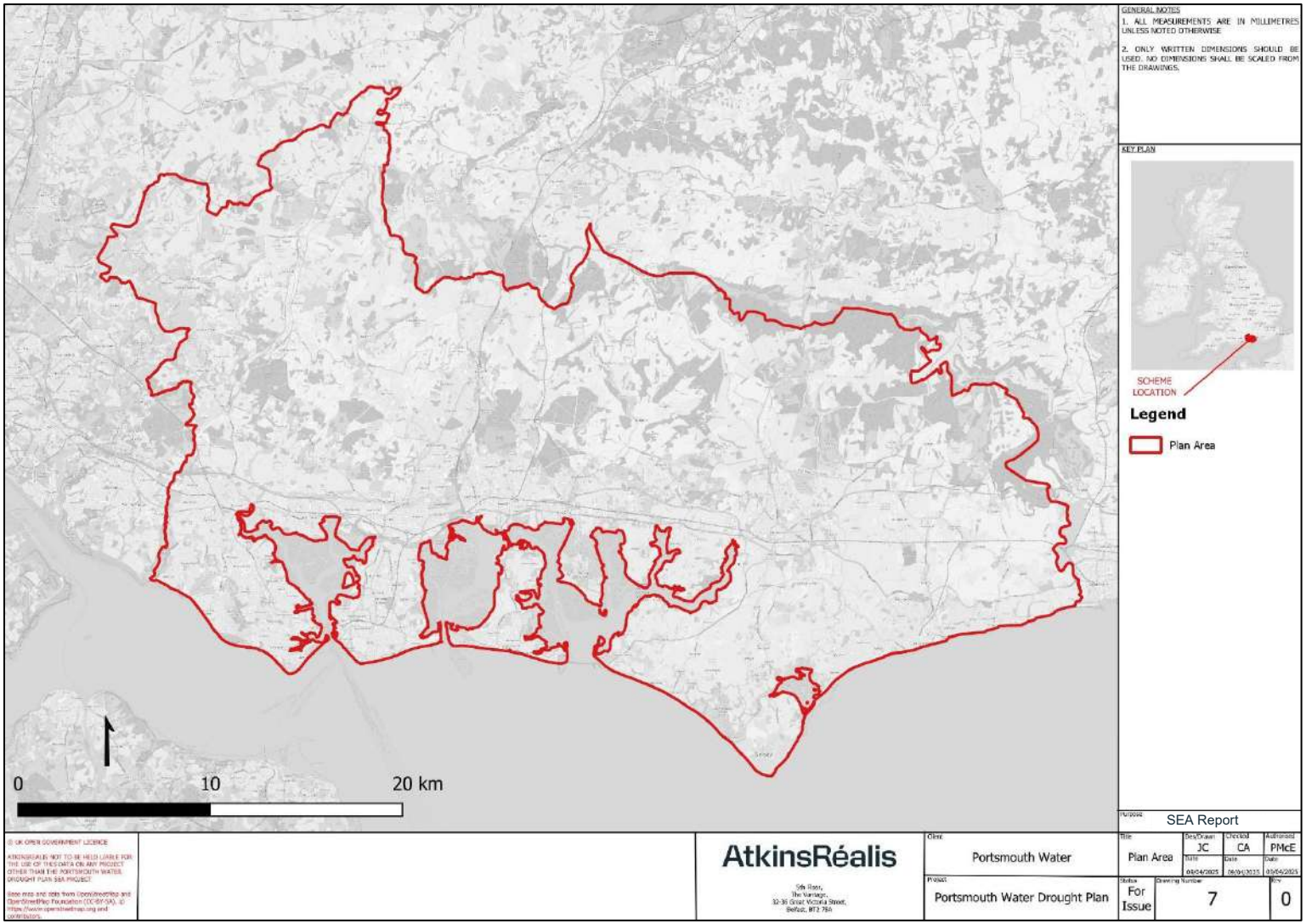
[124] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/829194/2a_Priority_habitats_2019_rev.pdf

[125] Water Resources South East Scoping Report wrse-regional-plan-strategic-environmental-assessment-scoping-report.pdf

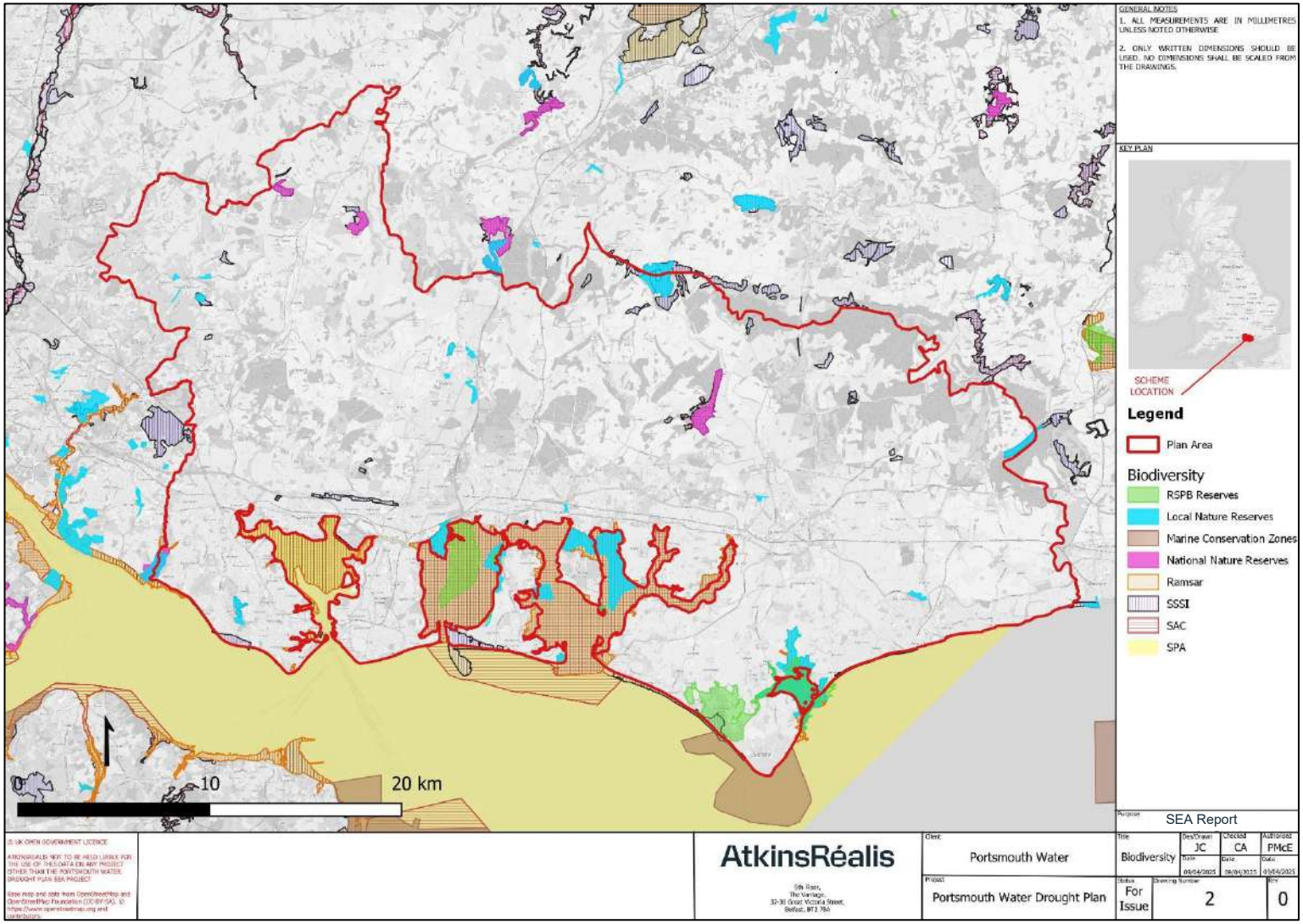
	Priority habitats can be designated as protected areas called Sites of Special Scientific Interest (SSSIs). They can also be outside of these SSSI protected areas but be under Higher Level Stewardship (HLS) or Countryside Stewardship (CS) agreements or fall within Forestry Commission (FC) 'Managed woodland'. Some priority habitats, however, fall outside of the protection of all these schemes.

Appendix D. Baseline Figures

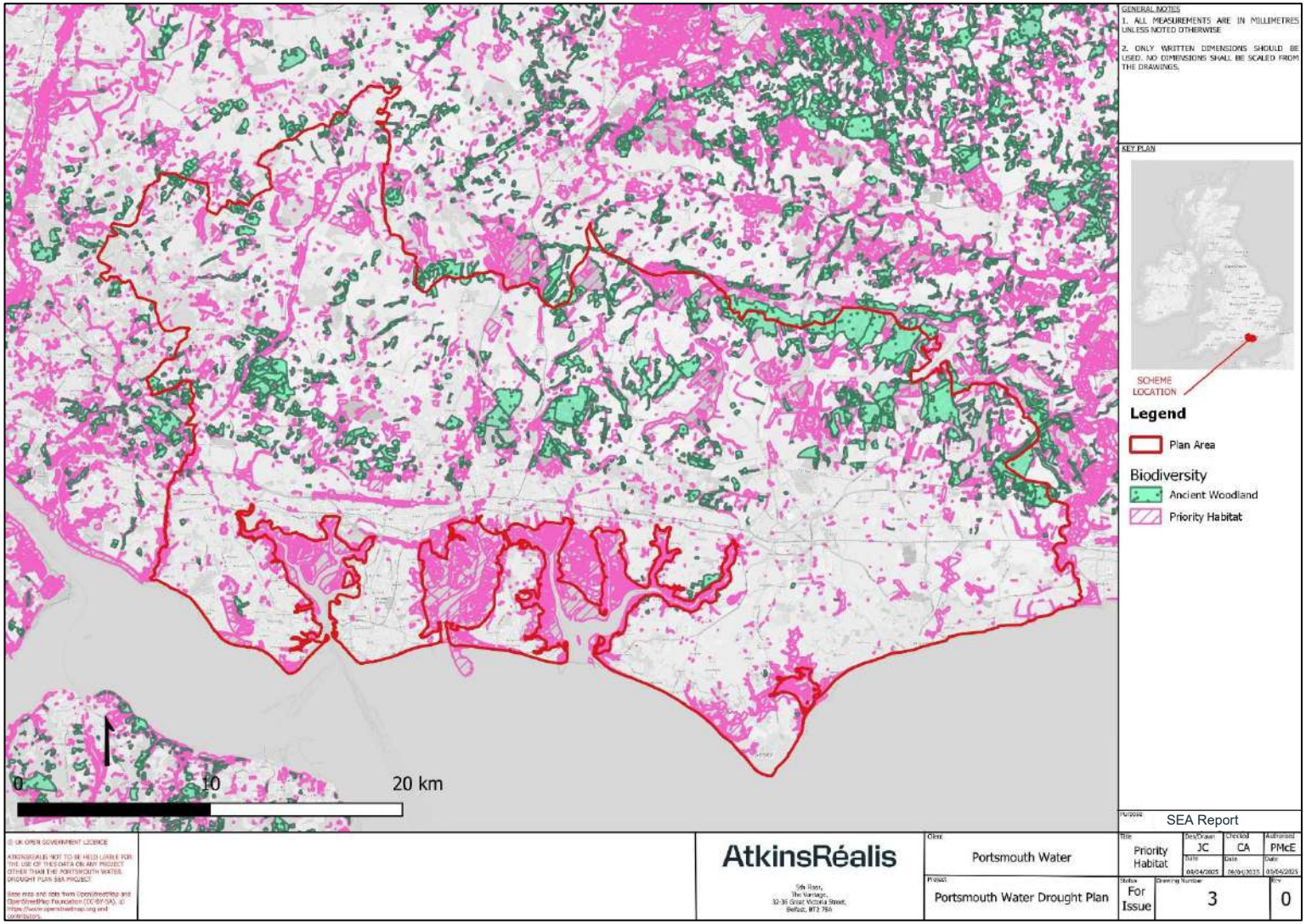
D.1 Location Map



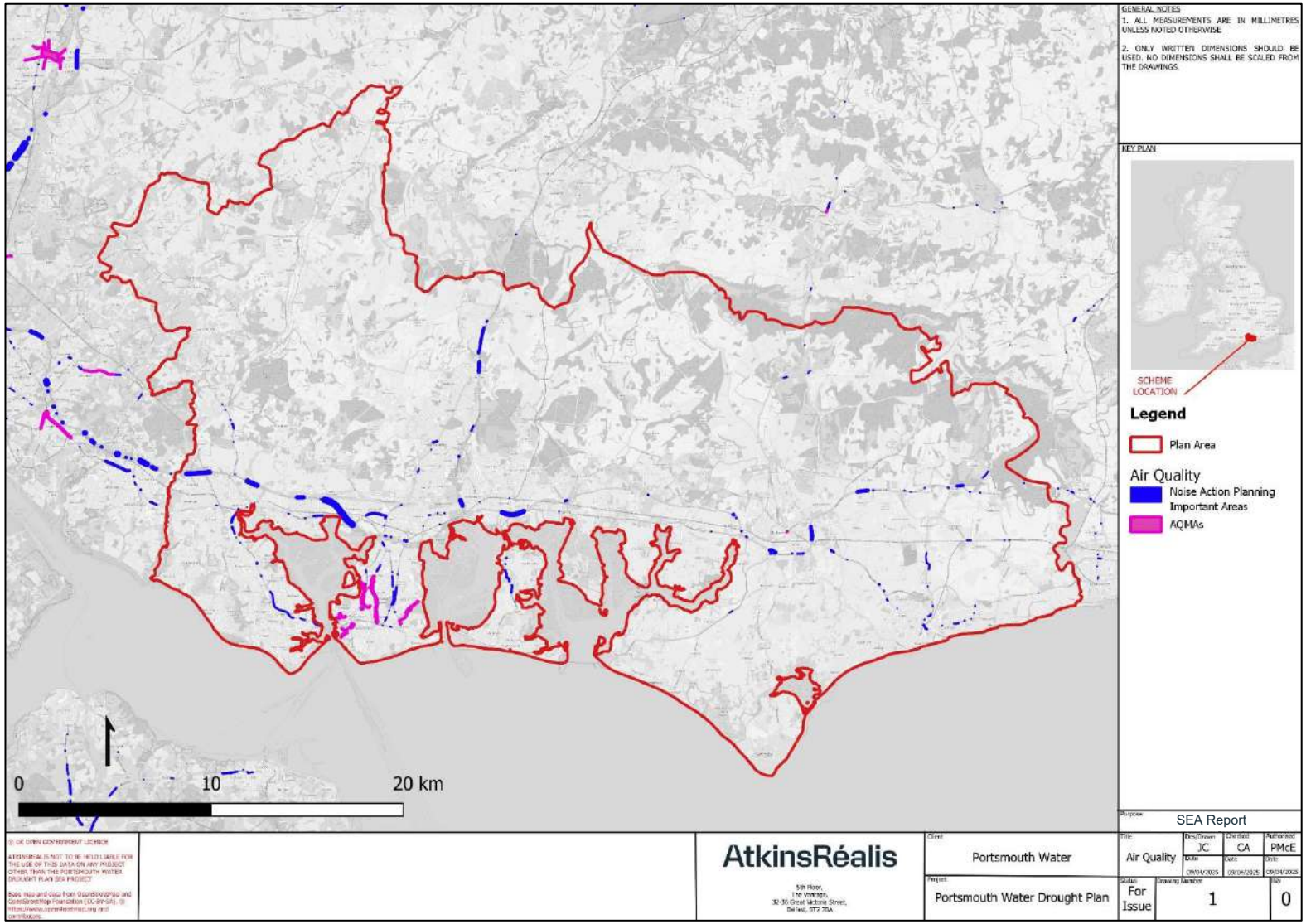
D.2 Biodiversity



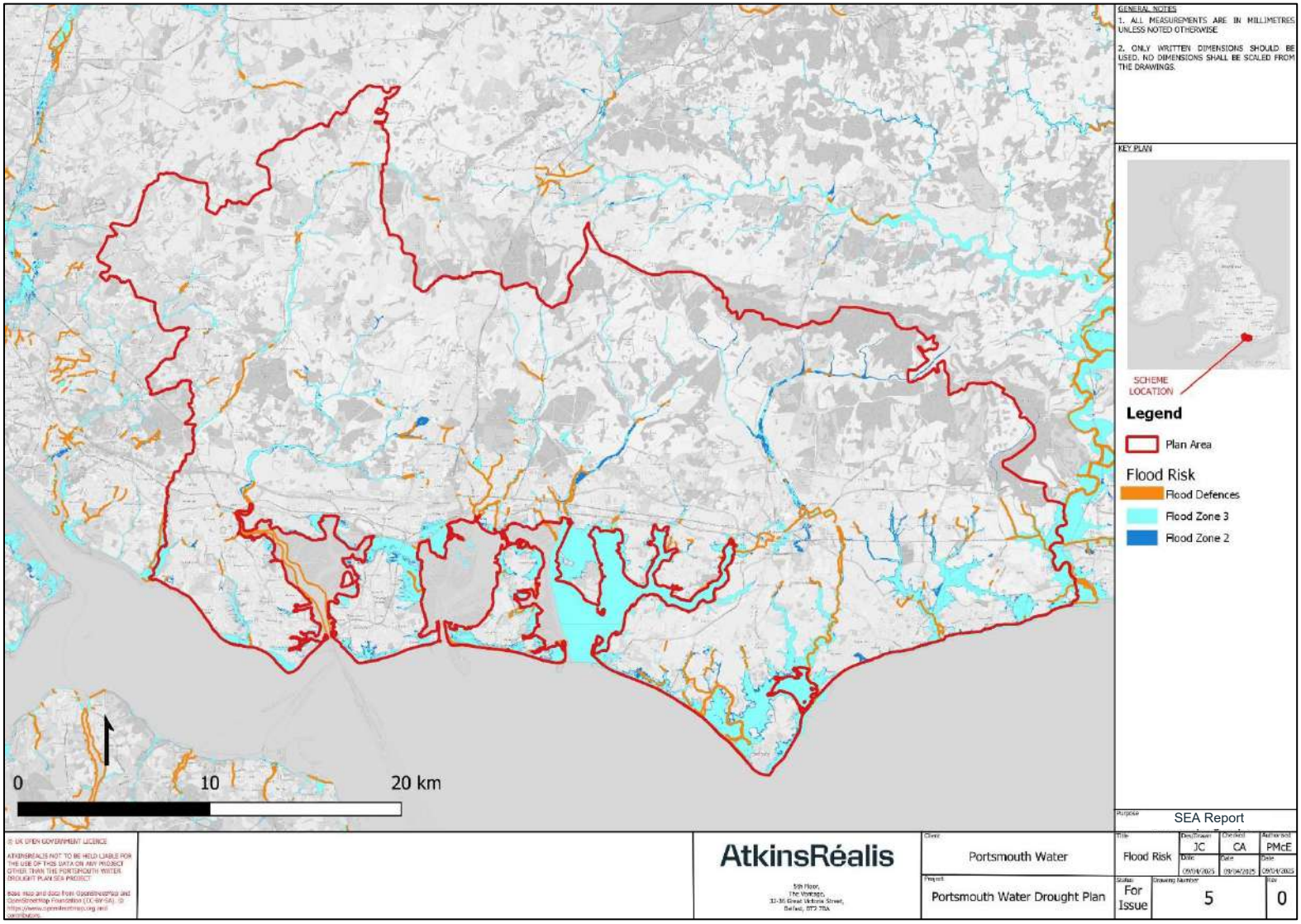
D.3 Priority Habitat



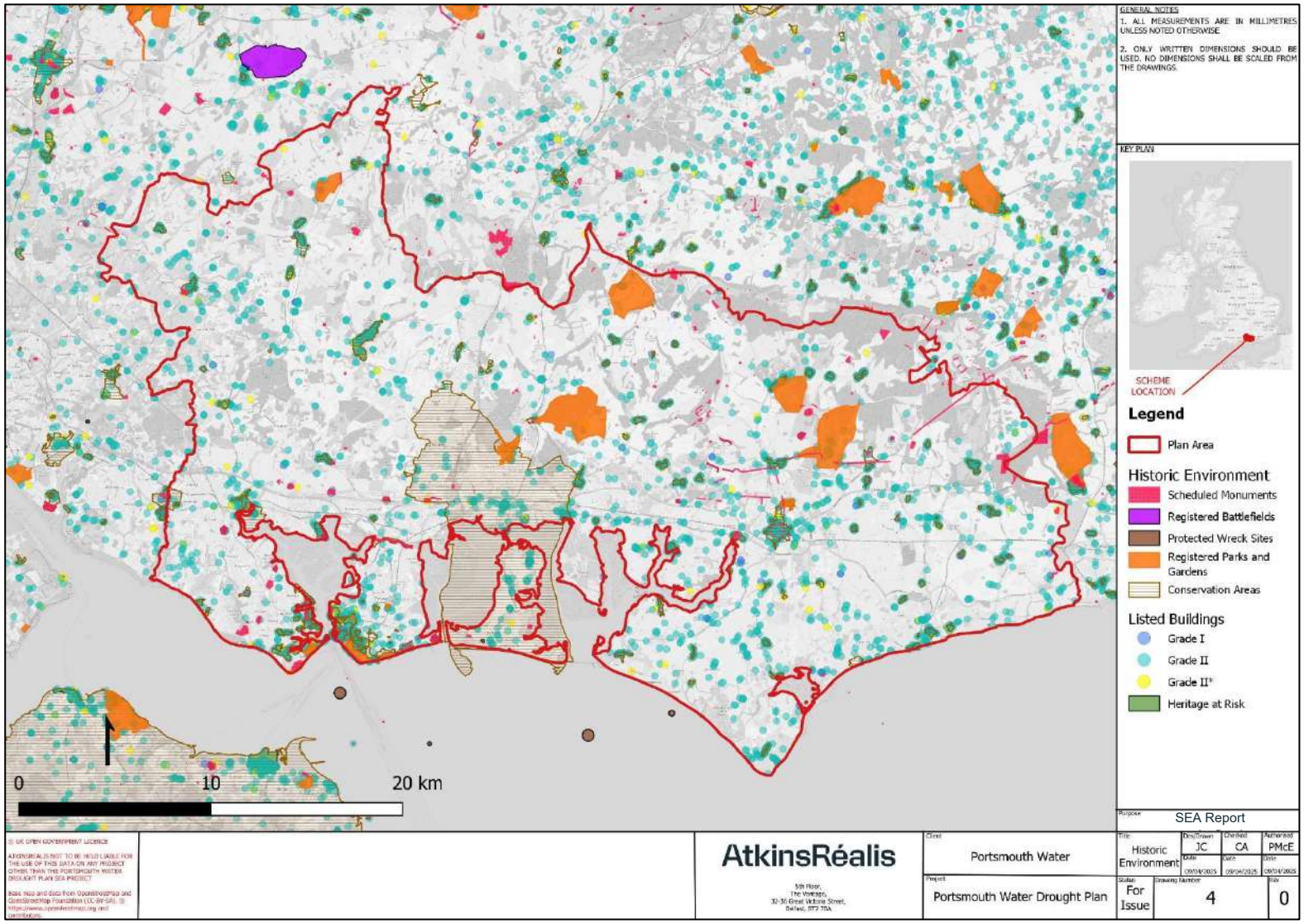
D.4 Air Quality



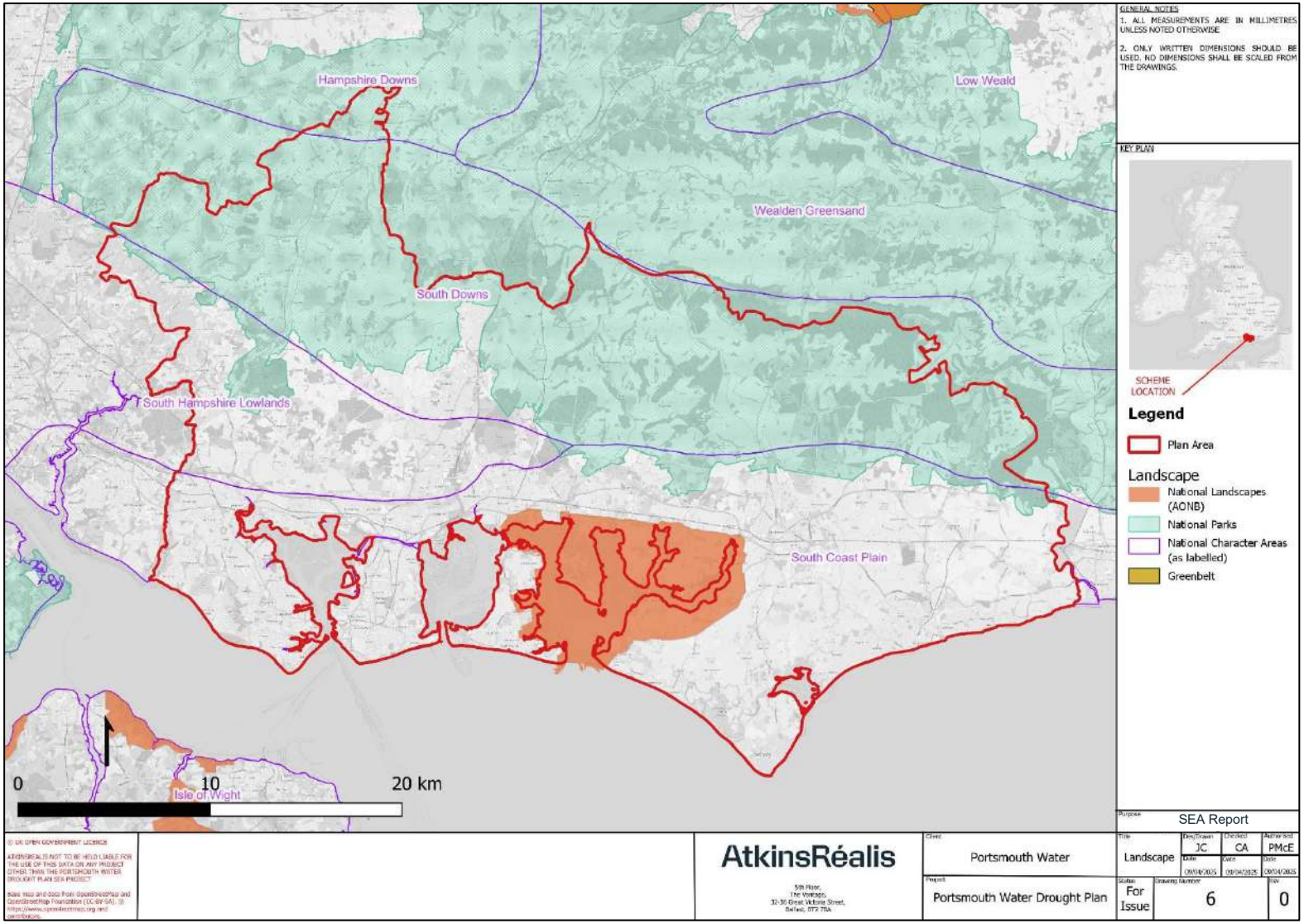
D.5 Flood Risk



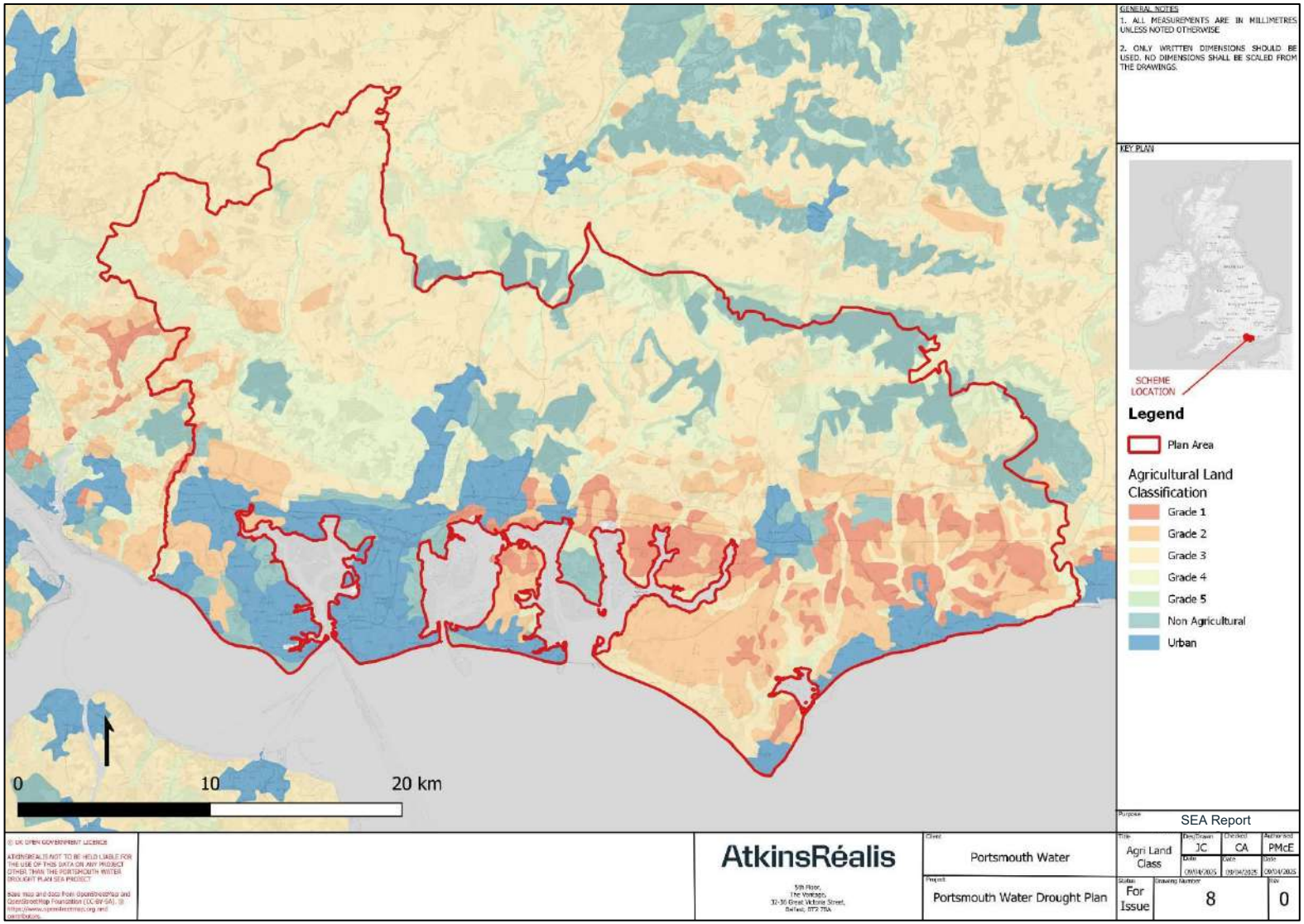
D.6 Historic Environment



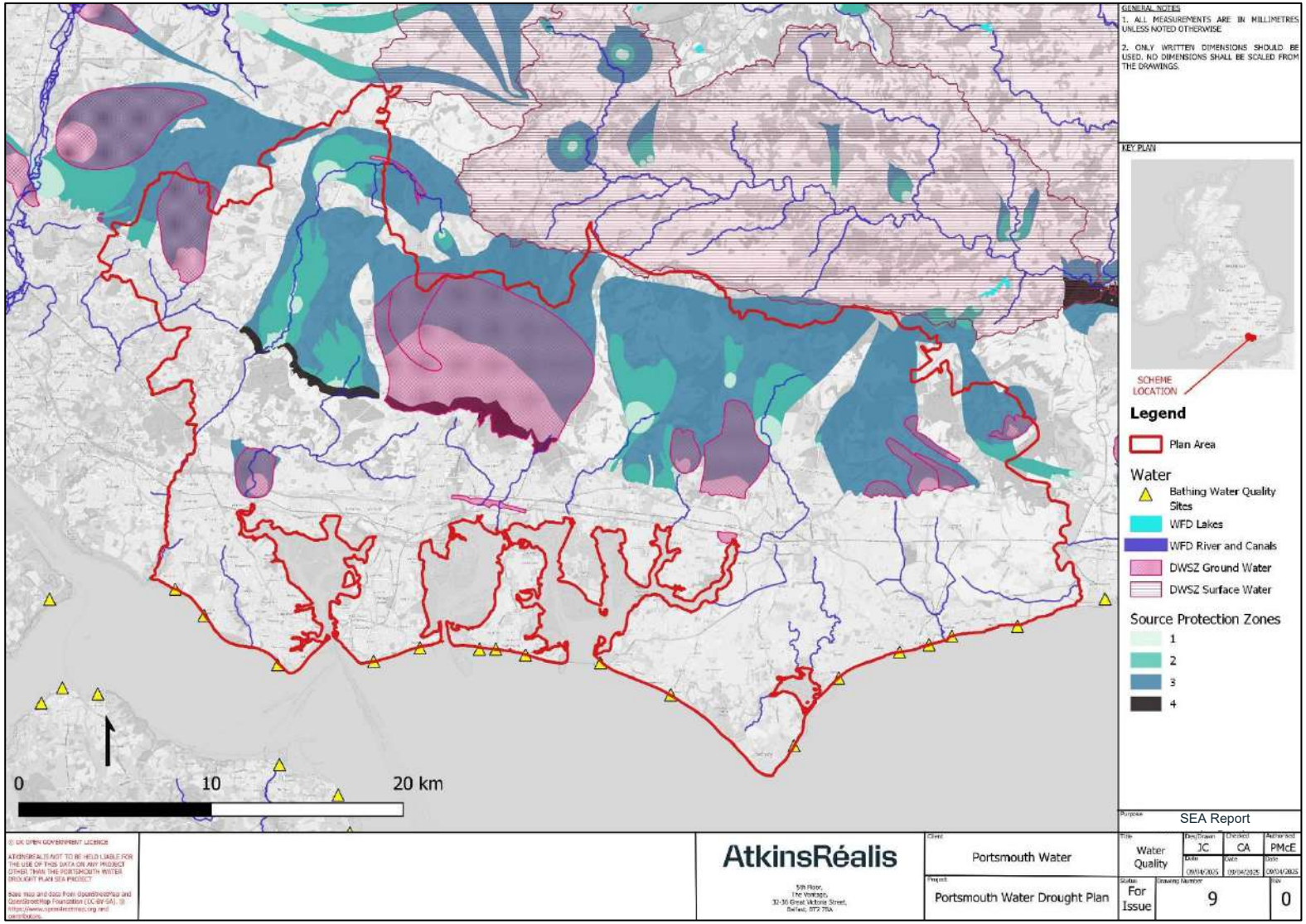
D.7 Landscape



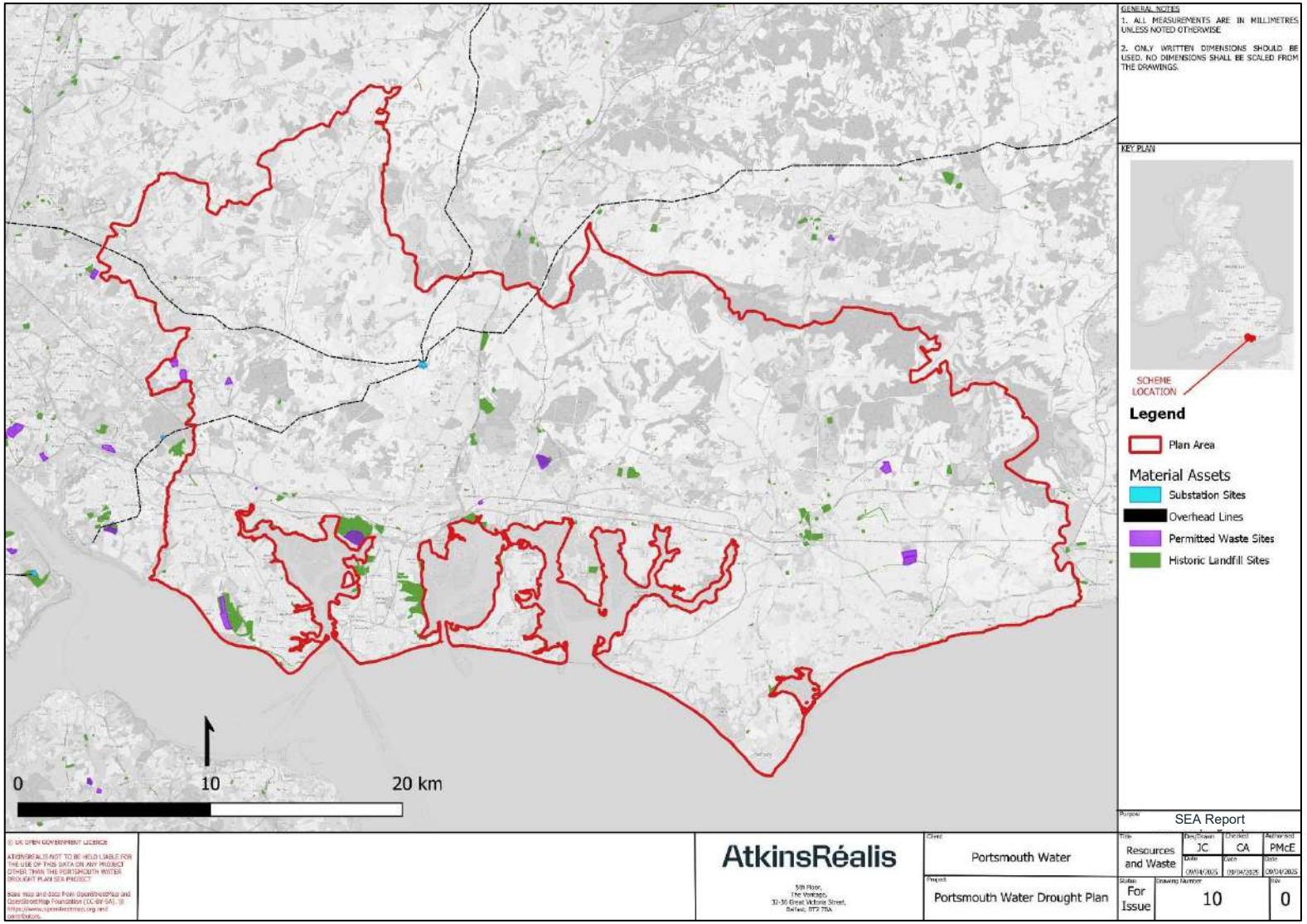
D.8 Agricultural Land Classification



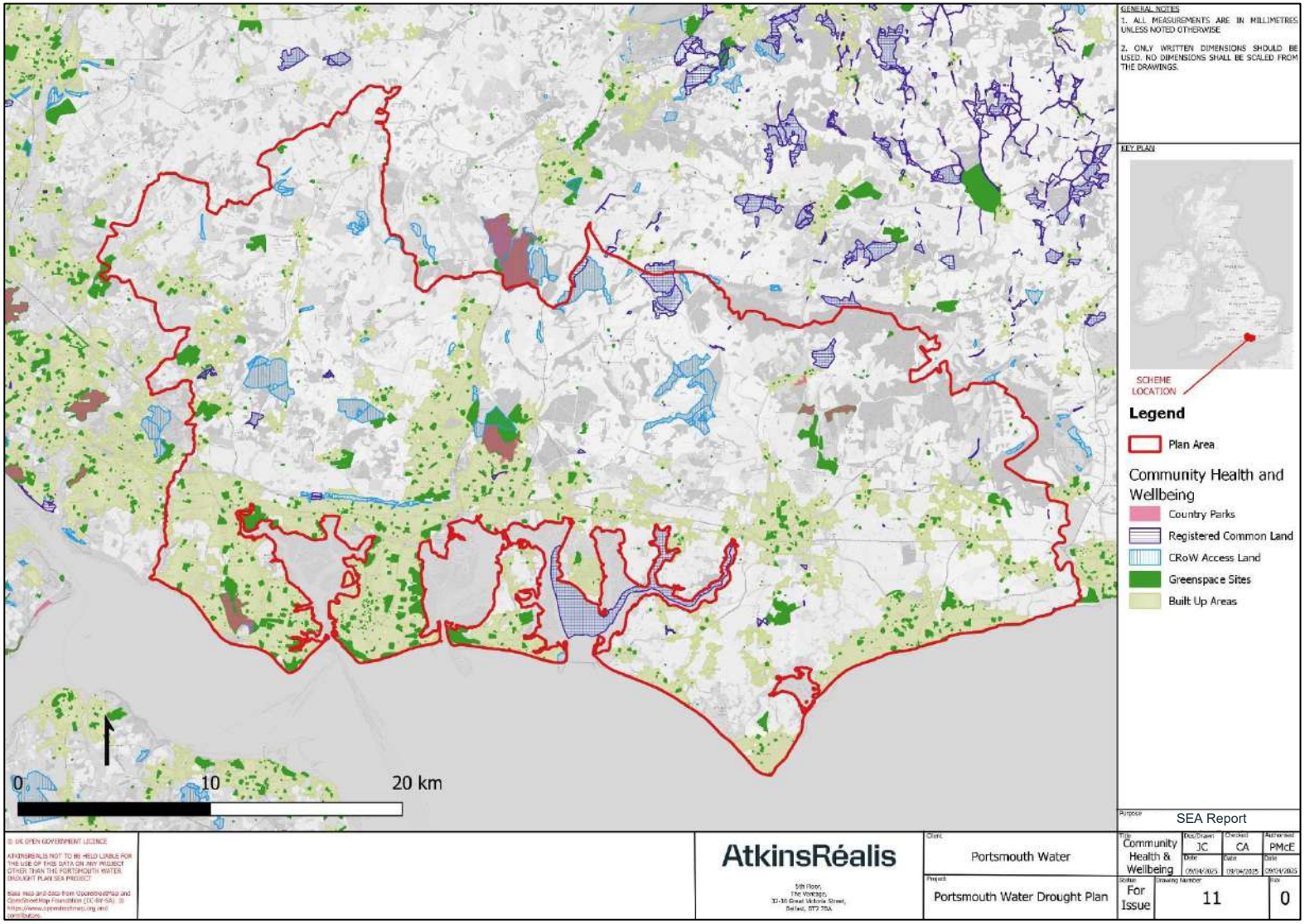
D.9 Water Quality and Resources



D.10 Resources and Waste



D.11 Community Health and Wellbeing



Appendix E. Option Assessments

E.1 Changing Pump at Source T

Option ID	
Option Name	Changing Pump at Source T
Option Description	Source T provides an individual annual licence quantity of 10Ml/d from two boreholes and forms part of the Source Q Group Licence (Source Q, Source R, Source S and Source T) which has an annual average licence rate of 28.38 Ml/d. The 1 in 200 year Deployable Output as per the WRMP24 is 6.4 Ml/d (annual average) and 7.64 Ml/d (critical period). The highest Deepest Advisable Pumping Water Level (DAPWL) at Source T sits at -44.0mAOD and the pumps for both boreholes (BH1 & BH2) sit at -41.7mAOD. The constraint at this source during low groundwater level is the operational pump capacity. The current pump would not be able to cope with the increase in hydraulic head as groundwater levels fall past a certain point. **The drought option for Source T is to remove the constraint by replacing the current pump with one with a higher rating to allow abstraction up to the licenced amount as groundwater levels continue to recede.**
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. Pagham Harbour SAC and Ramsar site is 7.6km south west of the option and Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar site are 8.3km south west. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (Solent and Dorset Coast SPA (Marine Component); Pagham Harbour SPA; Pagham Harbour Ramsar; Solent Maritime SAC (Marine Component); Chichester and Langstone Harbours SPA; Chichester and Langstone Harbours Ramsar; Duncton to Bignor Escarpment SAC; Singleton and Cocking Tunnels SAC; The Mens SAC; and Ebernoe Common SAC), and a Stage 2 AA was not required. Eartham Pit, Boxgrove SSSI is approximately 2.9km north of the option and Halnaker Chalk Pit SSSI is 3.1km north. The nearest LNR, The Brooks, is 4km south east and the nearest NNR, Kingley Vale, is over 10km north west of the option. The nearest area of ancient woodland is 650m south of the option. There are areas of deciduous woodland (priority habitat) near the option with the closest located 180m north west. Pagham Harbour RSPB Reserve is located approximately 8.9km south west of the option.	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation.	0	-	0	--
Characterisation of effects											
Small		Small		Small		Small	**Magnitude**				
Local		Local		Local		Local	**Scale**				
Short term		Short term		Short term		Short term	**Duration**				
Temporary		Temporary		Temporary		Temporary	**Permanence**				

						Construction impacts are expected to be minimal as works are confined to an existing borehole site, though temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows		Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	0	0	-	The option is located within Grade 3 agricultural land, which may be best and most versatile land. However, it is noted that all works are proposed within an existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.	None identified	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	---	The option is intersected by Aldingbourne Rife (WFD River), and therefore during construction there is the potential for short-term impacts on water quality due to ground disturbance, runoff or accidental spills. The option falls within the South East River Basin District, SPZ 2c and a Nitrate Vulnerable Zone. The closest Surface Drinking Water Safeguard Zone (DWSZ) is over 10km north and the closest Groundwater DWSZ is 1km north. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper aquifer zones, reducing groundwater levels and potentially leading to longer recovery times after drought. However, the option will contribute to resilience of supply by improving the reliability of assets within the network.	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required.	0	-	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, Chichester (St Pancras) AQMA is 5.6km south west. The closest Noise Action Planning Important Area is within 1.4km north east of the option. There are residential dwellings within 130m of the option to the east. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During operation, the infrastructure is not expected to produce significant air or noise emissions, noting that it is an alteration to an existing site.	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	0	-	During construction, there will be emissions due to machinery use, vehicle movements and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option will help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	0	0	0	The option is located within the South Coast Plain NCA. The nearest National Landscape (Chichester Harbour) is located 7.9km south west of the option. South Downs National Park is 1.9km north of the option. The nearest area of greenbelt is over 25km north. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible.	Best practicable means to minimise visual intrusion during construction.	0	0	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	-	The option is within 500m of one Grade I listed building and one Grade II listed building. The nearest Scheduled Monument is 900m south east. Aldingbourne Church Road Conservation Area is 200m east. Denmans Garden is a Registered Garden 2.6km north east of the option. The option is approximately 40km from the nearest Registered Battlefield. Historic land use mapping indicates the option lies within an area of enclosed agricultural land. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown).	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via engagement with heritage specialist.	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	0	+	0	The option is within 700m of two places of worship, including St Mary's Church 300m south east and Plymouth Brethren Christian Church 700m north east. Nyton House Nursing Home is within 1.5km of the option. The nearest Country Park is 5.7km north west of the option. The nearest school is over 1.7km south east (Hop Scotch Pre School). Given the nature of the works there is not anticipated to be any effects on the local community or users of these community facilities during construction. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	0	-	0	-	Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump is installed, contributing to resource demand.	Reuse excavated material and consider use of trenchless techniques during construction.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

	To avoid negative effects on built assets / infrastructure	0	0	+	0	The nearest major road, Arundel Road (A27) is 1.3km north of the option. A National Cycle Network is situated within 5.7km south west of the option. The nearest railway track is 1.3km south of the option. The option is 720m north east of the nearest CRoW Access Land and Registered Common Land. The nearest overhead electricity line is 18km north. The nearest substation Is Lovedean 400kv, located over 25km north west. Tangmere Airfield Runways historic landfill site is 400m west of the option. The nearest Permitted Waste Site is 1.9km south east of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation.	Best practice measures including implementation of a Traffic Management Plan to be considered to minimise disturbance during construction.	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

E.2 Changing Pump at Source Q

Option ID	
Option Name	Changing Pump at Source Q
Option Description	Source Q provides an individual annual licence quantity of 22.0Ml/d from a well with a borehole drilled through the bottom of it and forms part of the Source Q Group Licence (Source Q, Source R, Source S and Source T) which has an annual average licence rate of 28.38 Ml/d. The 1 in 200 year Deployable Output for Source Q as per the WRMP24 is 9.2 Ml/d (annual average) and 11.08 Ml/d (critical period). The well has the highest Deepest Advisable Pumping Water Level (DAPWL) of -7.5mAOD due to water quality issues beyond this, while the borehole DAPWL is set at -36.0mAOD. There are three pumps at this source, sitting at -2.2mAOD (1), -14.1mAOD (2) and -11.3mAOD (3). The constraint at this source during low groundwater level is the operational pump capacity. The current pumps would not be able to cope with the increase in hydraulic head as groundwater levels fall past a certain point. **The drought option for Source Q is to remove the constraint by replacing the current pumps with ones with a higher rating to allow abstraction up to the licenced amount as groundwater levels continue to recede.**
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. Solent and Dorset Coast SPA is approximately 7km south of the option and Duncton to Bignor Escarpment SAC is 6.9km north east. Pagham Harbour Ramsar site is over 10km south west. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (Duncton to Bignor Escarpment SAC; Solent and Dorset Coast SPA (Marine Component); Singleton and Cocking Tunnels SAC; The Mens SAC; and Ebernoe Common SAC), and a Stage 2 AA was not required. Eartham Pit, Boxgrove SSSI is approximately 3.1km north west of the option and Halnaker Chalk Pit SSSI is 3.5km north west. The nearest LNR, Fairmile Bottom, is 3.8km north east and the nearest NNR, Kingley Vale, is over 12km north west of the option. The nearest area of ancient woodland is 90m west of the option. There are areas of priority habitat, including lowland meadows, deciduous woodland and traditional orchard, near the option with the closest located 80m west (lowland meadows). Amberley Wildbrooks RSPB Reserve is located approximately 10.7km north east of the option.	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation.	0	-	0	--

						Construction impacts are expected to be minimal as works are confined to an existing borehole site, though temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows during operation of the option.						
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	0	0	-	The option is located within Grade 2 agricultural land, which is best and most versatile land. However, it is noted that all works are proposed within an existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.	None identified	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	--	The option is 1.1km north east of Lidsey Rife (WFD River). The option falls within the South East River Basin District, SPZ 2c and a Nitrate Vulnerable Zone. The closest Surface Drinking Water Safeguard Zone is 8.5km north and the closest Groundwater DWSZ is 500m north. During construction, there is potential for short-term impacts on water quality due to ground disturbance, runoff or accidental spills. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper aquifer zones, reducing groundwater	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required.	0	-	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**

						levels and potentially leading to longer recovery times after drought. However, the option will contribute to resilience of supply by improving the reliability of assets within the network.		Medium	Medium	Medium	Medium	**Certainty**
Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, Chichester (St Pancras) AQMA is 8.4km south west. The closest Noise Action Planning Important Area is within 600m north east of the option. There are residential dwellings within 50m of the pipeline to the east. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During operation, the infrastructure is not expected to produce significant air or noise emission, noting that it is an alteration to an existing site.	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	0	-	During construction, there will be emissions due to machinery use, vehicle movements, and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option may help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	0	0	0	The option is located within the South Coast Plain NCA. The nearest National Landscape (Chichester Harbour) is located over 10km south west of the option. South Downs National Park is 800m north of the option. The nearest area of greenbelt is approximately 25km north.	Best practicable means to minimise visual intrusion during construction.	0	0	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**

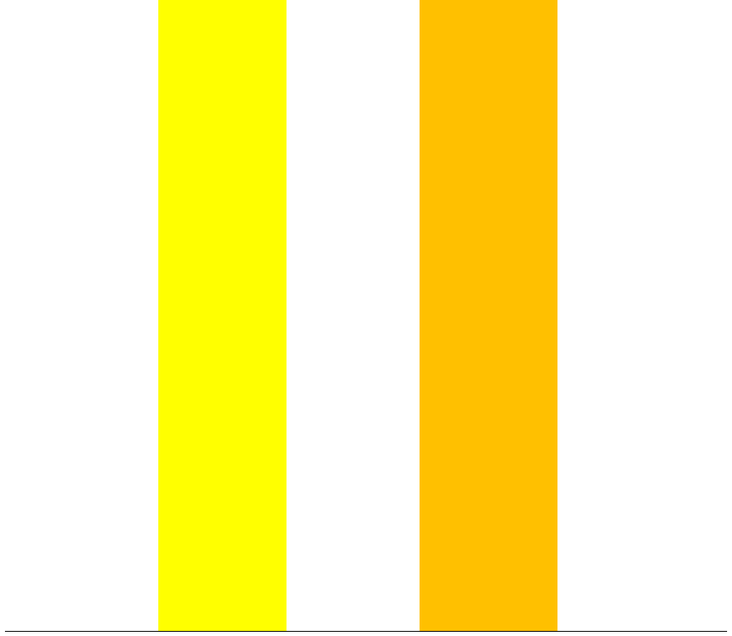
						As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible.		Medium	Medium	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	-	The nearest listed building is Westergate House, a Grade II listed building located 700m north west. The nearest Scheduled Monument is 3.2km north west. Eastergate (Church Lane) and Eastergate (Square) Conservation Area is 900m south west. Denmans Garden is a Registered Garden 600m north west of the option. The option is approximately 40km from the nearest Registered Battlefield. Historic land use mapping indicates the option intersects areas of settlement, and woodland and forestry land. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown).	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via engagement with heritage specialist.	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	0	+	0	The option is less than 100m east of Fontwell Park. Claremont Lodge Care Home is 70m north east and Barchester – Westergate House Care Home is 700m north west. Wandleys Lane Car Park is 200m south east. The Goodwood Estate Country Park is 6.6km north west. The Coach House education centre is 700m north. Given the nature of the works there is not anticipated to be any effects on the local community or users of these community facilities during construction. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	0	-	0	-	Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump	Reuse excavated material and consider use of trenchless techniques during construction.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**

					is installed, contributing to resource demand.		Temporary	Temporary	Temporary	Temporary	**Permanence**
							Medium	Medium	Medium	Medium	**Certainty**
To avoid negative effects on built assets / infrastructure	0	0	+	0	The nearest major road, Fontwell Avenue (A29) is 25m east of the borehole location. A National Cycle Network is situated within 5.5km south east of the option. The nearest railway track is 2.1km south of the option. The option is 1.2km north east of the nearest CRoW Access Land and Registered Common Land. The nearest overhead electricity line is 18km north. The nearest substation Is Lovedean 400kv, located over 28km north west. Wandley's Lane historic landfill site is 200m south of the option. The nearest Permitted Waste Site is 1.3km north of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation.	Best practice measures including a Traffic Management Plan to be implemented to minimise disturbance during construction.	0	0	+	0	
							Characterisation of effects				
							Small	Small	Small	Small	**Magnitude**
							Local	Local	Local	Local	**Scale**
							Short term	Short term	Short term	Short term	**Duration**
							Temporary	Temporary	Temporary	Temporary	**Permanence**
							Medium	Medium	Medium	Medium	**Certainty**

E.3 Changing Pump at Source D

Option ID	
Option Name	Changing Pump at Source D
Option Description	Source D provides an individual annual licence quantity of 1.8Ml/d and forms part of a group licence with Source C which has an annual average licence rate of 20.5 Ml/d. The 1 in 200 year Deployable Output for Source D as per the WRMP24 is 0.9 Ml/d (annual average) and 1.8 Ml/d (critical period). The Deepest Advisable Pumping Water Level (DAPWL) for the borehole has been set to - 43.0mAOD and the pump currently sits at -21.1mAOD. While there is approximately 22.0m between the pump and DAPWL, it is suggested that the groundwater levels do not drop as low as the DAPWL. However, the source constraint is the pump cut-out level / pump depth as groundwater levels recede. **The drought option for Source D is to remove the constraint by lowering the pump depth and associated pump cut out level. The pump could potentially be lowered by approximately 22m before reaching the DAPWL which could allow abstraction up to the licenced amount as groundwater levels continue to recede.** This may also be beneficial for any potential Emergency Plan (Level 4) options for this source.
Embedded Mitigation	None identified.

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. River Itchen SAC is 5.1km west of the option and Solent & Southampton Water SPA and Ramsar site is 6.1km south. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (River Itchen SAC; Solent Maritime SAC (Marine Component); Solent & Southampton Water SPA; Solent & Southampton Water Ramsar; Solent and Dorset Coast SPA (Marine Component); Mottisfont Bats SAC; and Briddlesford Copses SAC), and a Stage 2 AA was not required. The Moors, Bishop's Waltham SSSI is approximately 3.7km south east of the option and Galley Down Wood SSSI is 4.7km north east. The nearest LNR, Claylands, is 2.3km south east and the nearest NNR, Beacon Hill, is 8.6km north east of the option. The nearest area of ancient woodland is 670m east of the option. There are areas of deciduous woodland and traditional orchard (priority habitats) near the option with the closest located 90m east (traditional orchard). Langstone Harbour RSPB Reserve is located approximately over 21km south east of the option. Construction impacts are expected to be minimal as works are confined to an	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation.	0	-	0	--



						existing borehole site, though temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows during operation of the option.		Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	0	0	-	The option is located within Grade 4 agricultural land. However, it is noted that all works are proposed within an existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.	None identified.	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	---	The option is 650m north west of Horton Health Stream (WFD River). The option falls within the South East River Basin District, SPZ 2c and a Nitrate Vulnerable Zone. The closest Surface Drinking Water Safeguard Zone is over 12km north west and the closest Groundwater DWSZ is 1.9km east. During construction, there is potential for short-term impacts on water quality due to ground disturbance, runoff or accidental spills. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper aquifer zones, reducing groundwater	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required.	0	-	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**

						levels and potentially leading to longer recovery times after drought. However, the option will contribute to resilience of supply by improving the reliability of assets within the network.		Medium	Medium	Medium	Medium	**Certainty**
Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, Eastleigh AQMA No1 is 6.2km west. The closest Noise Action Planning Important Area is within 5.3km south of the option. There are residential dwellings within 250m of the pipeline to the north. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During operation, the infrastructure is not expected to produce significant air or noise emissions, noting that it is an alteration to an existing site.	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	0	-	During construction, there will be emissions due to machinery use, vehicle movements, and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option may help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	0	0	0	The option is located within the South Hampshire Lowlands NCA. Isle of Wight National Landscape is located 22km south of the option and Chichester Harbour is 24km south east. South Downs National Park is 500m north east of the option. The nearest area of greenbelt is approximately 30km south west. As all works are proposed within an existing pumping station, any	Best practicable means to minimise visual intrusion during construction.	0	0	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**

						construction or operation effects are considered negligible.		Medium	Medium	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	-	The option is 500m north east of a Grade II listed building. The nearest Scheduled Monument is 2.1km north west. Upham Conservation Area is 2.3km north east. Townhill Park is a Registered Park 7.8km south west of the option. The option is approximately 12km from the nearest Registered Battlefield. Historic land use mapping indicates the option lies within an area of enclosed agricultural land. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown).	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via engagement with heritage specialist.	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	-	+	0	Durley Hall Farm French Language School is located approximately 520m south west of the option and The Village Pre School is 970m north. Priory Court Anchor Retirement Home is 950m north east. Albany Road Cricket Ground is located 1.7km south east of the option. The nearest Country Park is 5.6km south west of the option. Construction activities may cause short-term disruption, such as noise or restricted access to the adjacent residential properties and businesses, although effects are expected to be minor. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing.	None identified.	0	-	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	0	-	0	-	Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump is installed, contributing to resource demand.	Reuse excavated material and consider use of trenchless techniques during construction.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**

								Medium	Medium	Medium	Medium	**Certainty**
To avoid negative effects on built assets / infrastructure	0	0	+	0	Mortimers Lane (B3037) is 930m north west of the option. A National Cycle Network is situated within 7.4km west of the option. The nearest railway track is 4.5km south west of the option. The option is 4km south west of the nearest CRoW Access Land and 6.6km north west of the nearest Registered Common Land. The nearest overhead electricity line is 350m north east. The nearest substation Is Lovedean 400kv, located over 15km south east. Roughay Farm historic landfill site is over 1.7km north west of the option. The nearest Permitted Waste Site is 1.6km south west of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation	Best practice measures including a Traffic Management Plan to be implemented to minimise disturbance during construction.	0	0	+	0	
							Characterisation of effects				
							Small	Small	Small	Small	**Magnitude**
							Local	Local	Local	Local	**Scale**
							Short term	Short term	Short term	Short term	**Duration**
							Temporary	Temporary	Temporary	Temporary	**Permanence**
							Medium	Medium	Medium	Medium	**Certainty**

E.4 Source S Drought Permit

Option ID	
Option Name	Source S Drought Permit
Option Description	Source S provides an individual annual licence quantity of 2.5Ml/d and forms part of the Source Q Group Licence (Source Q, Source R, Source S and Source T) which has an annual average licence rate of 28.38Ml/d. The highest Deepest Advisable Pumping Water Level (DAPWL) for the borehole has been set to ~31mAOD and the pump sits at ~28mAOD. The drought option for Source S is to remove the constraint by replacing the current pumps with one with a higher rating to allow abstraction up to the revised licence amount as groundwater levels continue to recede. Construction works involve lifting, replacing and reconnecting a larger pump, and potentially the installation of a temporary treatment package plant.
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects

Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. Duncton to Bignor Escarpment SAC is 4.8km north of the option and Arun Valley SAC, SPA and Ramsar site are 8.5km north east. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (Duncton to Bignor Escarpment SAC; Arun Valley SAC; Arun Valley SPA; Arun Valley Ramsar; Solent and Dorset Coast SPA (Marine Component); Singleton and Cocking Tunnels SAC; The Mens SAC; and Ebernoe Common SAC), and a Stage 2 AA was not required. Fairmile Bottom SSSI and LNR is approximately 2.5km east of the option and Eartham Pit, Boxgrove SSSI is 2.9km west. The nearest NNR, Kingley Vale, is 13km west of the option. The nearest area of ancient woodland is 100m south of the option. There are areas of deciduous woodland (priority habitat) approximately 70m south of the option. Amberley Wildbrooks RSPB Reserve is located approximately 8.8km north east of the option. Construction impacts are expected to be minimal as works are confined to an existing borehole site, though temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows during operation of the option. The Environmental Assessment Report (EAR) identified likely minor impacts on Arundel Park SSSI unit 1 and up to major impacts on Arundel Park SSSI unit 2 and Arun Valley Watersfield to Arundel LWS due to a decrease in habitat quality as a result of decreased water levels, a decrease in the extent of habitat as a result of changes in water levels and increased predation and changes in abundance of species due to loss of habitat. Up to major impacts are also identified for NERC habitats (Reedbeds, lowland	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation. Further specific mitigation is considered in the EAR.	0	-	0	---

fens) due to a decrease in habitat quality as a result of decreased water levels and a decrease in the extent of habitat as a result of changes in water levels, and for headwaters due to a decrease in habitat quality as a result of decreased water levels and flows.

In terms of fish minor impacts are identified for flounder, three-spined stickleback and European eel (all at Mill Stream) and uncertain impacts for brown trout (Mill Stream) and other species (Mill Stream, Park Bottom tributary, Swanbourne Lake and WWT Reserve) due to reasons including fish stranding/isolation - reduced flows could make structures impassable, impacting fish populations, fish populations trapped between structures could be lost, habitat and flow regime change - barriers to natural fish movements (notably eels), change to macrophytes may result in loss of cover and habitat for fish and impacts to water quality. Although the reasons differ at each location.

Major impacts are likely for macroinvertebrates at Park Bottom Tributary, up to major for those at Mill Stream and WWT Reserve and uncertain for those at Swanbourne Lake due to reduced flows causing temporal loss of available habitats, leading to localised reduction or loss of communities or species, fine sediment deposition, smothering of habitats with an impact on macroinvertebrate population diversity and abundance and water quality impacts directly affecting macroinvertebrate diversity and abundances.

Moderate impacts are likely for macrophytes at Park Bottom Tributary, minor to moderate impacts for macrophytes at Swanbourne Lake and uncertain impacts for macrophytes at WWT Reserve and Mill Stream. These impacts are due to reasons including reduced flow velocities leading to loss/reduction of rheophilic species, reduced flows causing temporal loss of available habitats, leading to localised reduction or loss of communities or species, fine sediment deposition, smothering macrophytes, leading to loss of population diversity and abundance, water quality impacts (notably nutrient increase) affecting macrophyte diversity

						and abundances e.g. substitution with eutrophic species or filamentous algae. For protected NERC and notable species uncertain impacts are identified for terrestrial invertebrates (WWT Reserve and Mill Stream), minor impacts for terrestrial invertebrates (Swanbourne Lake), minor impacts for birds (WWT Reserve, Mill Stream, Swanbourne Lake and Fountain Pond), minor to moderate impacts for birds (Park Bottom tributary),		**Characterisation of effects**				
							Small	Small	Small	Small	**Magnitude**
							Local	Local	Local	Local	**Scale**
							Short term	Short term	Short term	Short term	**Duration**
							Temporary	Temporary	Temporary	Temporary	**Permanence**
							Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	0	0	-	The option is located within Grade 2 agricultural land, which is best and most versatile land. However, it is noted that all works are proposed within an existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.	None identified	0	0	0	-
							Characterisation of effects				
							Small	Small	Small	Small	**Magnitude**
							Local	Local	Local	Local	**Scale**
							Short term	Short term	Short term	Short term	**Duration**
							Temporary	Temporary	Temporary	Temporary	**Permanence**
							Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	---	The option is 3.1km north east of Lidsey Rife (WFD River). The option falls within the South East River Basin District, SPZ 3 and a Nitrate Vulnerable Zone. The option is within a Groundwater DWSZ and the closest Surface Drinking Water Safeguard Zone (DWSZ) is over 6km north. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper aquifer zones, reducing groundwater levels and potentially leading to longer recovery times after drought. However, the option will contribute to resilience of supply by improving the reliability of assets within the network. The WFD assessment screened all WFD surface water and transitional water bodies from further assessment. Swanbourne Lake, Mill Stream and the Wildfowl and Wetlands Trust Reserve	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required. The risk of temporary deterioration in WFD status will be discussed with the Environment Agency in the event that the Source S drought permit needs to be implemented in a future drought. The risks to WFD compliance will also be further assessed at this time to take account of any new evidence from new baseline data. Further specific mitigation is considered in the EAR.	0	-	+	---
							Characterisation of effects				
							Small	Small	Small	Small	**Magnitude**
							Local	Local	Local	Local	**Scale**
							Short term	Short term	Short term	Short term	**Duration**
							Temporary	Temporary	Temporary	Temporary	**Permanence**
							Medium	Medium	Medium	Medium	**Certainty**

						are beyond the scope of the WFD assessment as they are not WFD waterbodies. It has been assessed there is a medium risk of temporary deterioration in quantitative status owing to the GWDTEs test. All of the impacts are considered to be short-term, temporary and reversible. The EAR identified likely minor adverse effects on the chalk aquifer as the Source S permit may derogate other licensed groundwater abstractions (drawdown is predicted to be 0.3 to 0.4 m at some sources). The sensitivity of the abstractions to reduced groundwater levels is not known. Negligible impacts are likely for the River Lavant, Chichester Channel (of Chichester Harbour), Pagham Rife, Aldingbourne Rife, Lidsey Rife, Binstead Rife, Ryebank Rife and River Arun in terms of flows and levels. Major impacts are likely at Park Bottom tributary as the due to large flow reductions (relative). Minor impacts are identified at Swanbourne Lake due to the potential impact on flows. Up to major impacts are likely for Mill Stream and Wildfowl and Wetlands Trust (WWT) reserve due to the impacts on flows and levels. In terms of groundwater quality low risk impacts are likely for the Chalk aquifer and for surface water quality low risk impacts are likely for assessed water regime receptors. Medium risk impacts are likely for Park Bottom tributary, Mill Stream and WWT reserve in relation to hydromorphology and a negligible risk for Swanbourne Lake.						
Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, Chichester (St Pancras) AQMA is 9.6km south west. The closest Noise Action Planning Important Area is within 1.2km south of the option. There are residential dwellings within 700m of the option. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During operation, the infrastructure is not expected to produce significant air or noise emissions, noting that it is an alteration to an existing site.	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
		0	-	0	-			0	-	0	-	

Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050					During construction, there will be emissions due to machinery use, vehicle movements and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	**Characterisation of effects**				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option will help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	0	0	-	The option is located within the South Downs NCA. The nearest National Landscape (Chichester Harbour) is located 12km south west of the option. The option is located within South Downs National Park. The nearest area of greenbelt is over 23km north. As all works are proposed within an existing pumping station, any construction effects are considered negligible. The EAR identifies likely minor impacts on South Downs National Park and National Character Area for reasons including impacts on wildlife and habitats through temporary exacerbation of drought conditions and impact on landscape through temporary exacerbation of drought conditions.	Best practicable means to minimise visual intrusion during construction.	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	--	The nearest listed building (Grade II) is located over 500m east. The nearest Scheduled Monument is over 2km east. Slindon Conservation Area is over 500m east. Denmans Garden is a Registered Garden 1.7km south west of the option. The option is approximately 40km from the nearest Registered Battlefield. Historic land use mapping indicates the option lies within an area of enclosed agricultural land.	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via	0	0	0	-	
								Characterisation of effects				

						As all works are proposed within an existing pumping station, any construction effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown). The Heritage Impact Assessment report completed as part of the WRMP24 notes the increased abstraction limit may potentially exacerbate the effects of drought on the local water system regarding supply and recovery and therefore potential moderate effects to archaeological remains from waterlogging due to fluctuating water tables. No potential for impact has been identified on the setting of the scheduled Arundel Castle, listed buildings or the Arundel Conservation Area as a result of the Scheme. The changes to surface water sources will prolong existing natural cycles of wet and dry and not result in any significant change to the setting of surrounding historic buildings. Further detail can be found in the Heritage Impacts Assessment report.	engagement with heritage specialist. Recommendations arising from further modelling and assessment to be adopted in full.	Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	0	+	--	The option is within 700m of two places of worship (St Richard Church and St Mary's Church). The Laurels Nursing Home is within 1.6km of the option. The nearest Country Park is 6km north west of the option. The nearest school is within 500m east (Slindon College). Given the nature of the works there is not anticipated to be any effects on the local community or users of these community facilities during construction. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing. The EAR identified likely minor impacts on Swanbourne Lake boat hire and WWT Reserve boat safari due to short term and reversible impact on the ability to use boats. Moderate impacts are likely on Park Bottom tributary Chalk Springs Fishery (brown and rainbow trout fishing) due to potential for longer term impact on fish population and therefore fishing and loss of a recreational resource.	Further specific mitigation is considered in the EAR.	0	0	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

Material Assets	To minimise resource use and waste production	0	-	0	-	Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump is installed, contributing to resource demand.	Reuse excavated material and consider use of trenchless techniques during construction.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
	To avoid negative effects on built assets / infrastructure	0	0	+	0	The nearest major road, Arundel Road (A27) is 1.3km south of the option. The nearest railway track is 4.2km south of the option. The option is 600m south west of the nearest CRoW Access Land and Registered Common Land. The nearest overhead electricity line is 16km north. The nearest substation Is Lovedean 400kv, located over 28km north west. Slindon Bottom South historic landfill site is 400m south west of the option. The nearest Permitted Waste Site is 3.5km west of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation.	Best practice measures including implementation of a Traffic Management Plan to be considered to minimise disturbance during construction.	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

E.5 Changing Pump at Source F

Option ID	
Option Name	Changing Pump at Source F
Option Description	Source F provides an annual licence quantity of 9.02Ml/d from a well and forms parts of a group licence with Source G. Two Deepest Advisable Pumping Water Level (DAPWLs) have been identified at 5.5mAOD and 16mAOD. There are two pumps in the well and these both sit at 9.2mAOD. The 1 in 200 year Deployable Output as per the WRMP24 is 7.2 Ml/d (annual average) and 11.56 Ml/d (critical period). The constraint at this source during low groundwater level is the operational pump capacity. The current pump would not be able to cope with the increase in hydraulic head as groundwater levels fall past a certain point. **The drought option for Source F is to remove the constraint by replacing the current pump with one with a higher rating to allow abstraction up to the licenced amount as groundwater levels continue to recede.**
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects

Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. Solent & Southampton Water SPA and Ramsar site and Solent Maritime SAC are 7.3km south west of the option. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (Solent Maritime SAC (Marine Component); Solent & Southampton Water SPA; Solent & Southampton Water Ramsar; Solent and Dorset Coast SPA (Marine Component); Portsmouth Harbour SPA; Portsmouth Harbour Ramsar; Briddlesford Copses SAC; and Singleton and Cocking Tunnels SAC), and a Stage 2 AA was not required. Waltham Chase Meadows SSSI is approximately 3km north west of the option, The Moors, Bishop's Waltham SSSI is 3.8km north west and Galley Down Wood is 4.8km north west. The nearest LNR, The Moors, Bishop's Waltham, is 4.3km north west and the nearest NNR, Old Winchester Hill, is 7.5km north east of the option. The nearest area of ancient woodland is 300m south of the option. There are areas of deciduous woodland (priority habitat) near the option with the closest located approximately 20m east of the borehole. Pagham Harbour RSPB Reserve is located approximately 8.9km south west of the option. Construction impacts are expected to be minimal as works are confined to an existing borehole site, though temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows during operation of the option.	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation.	0	-	0	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the	0	0	0	-	The option is located within Grade 4 agricultural land. However, it is noted that all works are proposed within an	None identified	0	0	0	-	
								Characterisation of effects				

	functionality, quantity and quality of soils					existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.		Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	---	The option is 130m south of Meon River (WFD River). The option falls within the South East River Basin District, SPZ 2c and a Nitrate Vulnerable Zone. The closest Surface Drinking Water Safeguard Zone (DWSZ) is over 12km north east and the closest Groundwater DWSZ is 5.2km south. During construction, there is potential for short-term impacts on water quality due to ground disturbance, runoff or accidental spills. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper aquifer zones, reducing groundwater levels and potentially leading to longer recovery times after drought. However, the option will contribute to resilience of supply by improving the reliability of assets within the network.	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required.	0	-	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, High Street Botley AQMA is 8.4km south west. The closest Noise Action Planning Important Area is within 3.8km south west of the option. There are residential dwellings within 200m of the pipeline to the north east. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**

						operation, the infrastructure is not expected to produce significant air or noise emissions, noting that it is an alteration to an existing site.		Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	0	-	During construction, there will be emissions due to machinery use, vehicle movements, and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option may help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified.	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	0	0	0	The option is located within the South Hampshire Lowlands NCA. Chichester Harbour National Landscape is located over 15km south east of the option. The option is within South Downs National Park. The nearest area of greenbelt is approximately 34km south west. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible.	Best practicable means to minimise visual intrusion during construction.	0	0	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	-	The option is within 500m of four Grade II listed buildings. The nearest Scheduled Monument is 3.1km north east. The option is within Soberton Pumping Station Conservation Area. Warnford Park is a Registered Park 8.2km north east of the option. The option is approximately 14km from the nearest Registered Battlefield. Historic land use mapping indicates the option lies within an area of enclosed agricultural land.	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via engagement with heritage specialist.	0	0	0	-	

						Despite being within a Conservation Area, as all works are proposed within an existing pumping station, any construction or operation effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown).		**Characterisation of effects**				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	0	+	0	The option is 2.2km north west of a place of worship (Holy Trinity Church). Newtown Soberton Infant School and Earlybirds Pre School are located 2.2m south east of the option. Swanmore Golf Course is 1.3km north west. Pump House Specialist Auctions is located on the site of the pumping station. The nearest Country Park is 8.8km south west of the option. Given the nature of the works there is not anticipated to be any effects on the local community or users of these community facilities during construction. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	0	-	0	-	Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump is installed, contributing to resource demand.	Reuse excavated material and consider use of trenchless techniques during construction.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

	To avoid negative effects on built assets / infrastructure	0	-	+	0	The nearest major road, Wickham Road (A32) is 40m north of the option. A National Cycle Network is situated within 8.2km south of the option. The nearest railway track is 6km south west of the option. The option is 510m north east of the nearest CRoW Access Land and 1.1km south west of the nearest Registered Common Land. The nearest overhead electricity line is 1km north east. The nearest substation Is Lovedean 400kv, located 7.8km south east. Holywell Estate historic landfill site is 1km north east of the option. The nearest Permitted Waste Site is 2.5km south west of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation.	Best practice measures including a Traffic Management Plan to be implemented to minimise disturbance during construction.	0	-	+	0

Characterisation of effects				
Small	Small	Small	Small	**Magnitude**
Local	Local	Local	Local	**Scale**
Short term	Short term	Short term	Short term	**Duration**
Temporary	Temporary	Temporary	Temporary	**Permanence**
Medium	Medium	Medium	Medium	**Certainty**

E.6 Changing Pump at Source H

Option ID	
Option Name	Changing Pump at Source H
Option Description	Source H provides an individual licence quantity of 9.12Ml/d from two boreholes (BH2 and BH3). The Deepest Advisable Pumping Water Level (DAPWL) for BH2 sits at -3mAOD while BH3 sits at - 5mAOD. The pump for BH2 sits at 11.4mAOD. This is approximately 14m above the DAPWL. The pump for BH3 sits at 10.7mAOD. This is approximately 15m above the DAPWL. The constraint at this source during low groundwater level is the operational pump capacity. The current pump would not be able to cope with the increase in hydraulic head as groundwater levels falls past a certain point. **The drought option for Source H is to remove the constraint by replacing the current pumps with one with a higher rating to allow abstraction up to the licenced amount as groundwater levels continue to recede.**
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. Solent Maritime SAC and Solent & Southampton Water SPA and Ramsar site are approximately 9.2km south west. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (Solent Maritime SAC (Marine Component); Solent & Southampton Water SPA; Solent & Southampton Water Ramsar; Solent and Dorset Coast SPA (Marine Component); Briddlesford Copses SAC; and Singleton and Cocking Tunnels SAC), and a Stage 2 AA was not required. Galley Down Wood SSSI is approximately 3.8km north west of the option. The nearest LNR, The Moors, Bishops Waltham, is 4.5km north west and the nearest NNR, Old Winchester Hill, is 5.1km north east of the option. The nearest area of ancient woodland is 1.4km south west of the option. There are areas of priority habitat, including deciduous woodland and coastal and floodplain grazing marsh, near the option and the option is adjacent to an area of deciduous woodland. Langstone Harbour RSPB Reserve is located 14km south east of the option. Construction impacts are expected to be minimal as works are confined to an existing borehole site, though	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation.	0	-	0	--
										Characterisation of effects	

						temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows during operation of the option.		Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	0	0	-	The option is located within Grade 3 agricultural land, which may be best and most versatile land. However, it is noted that all works are proposed within an existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.	None identified	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	---	Meon WFD River is within 40m west of the option. During construction, and therefore during construction there is potential for short-term impacts on water quality due to ground disturbance, runoff or accidental spills. The option falls within the South East River Basin District, SPZ 2 and a Nitrate Vulnerable Zone. The closest Surface Drinking Water Safeguard Zone (DWSZ) is over 10km north east and the closest Groundwater DWSZ is 4.9km east. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper aquifer zones, reducing groundwater levels and potentially leading to longer recovery times after drought.	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required.	0	-	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

						However, the option will contribute to resilience of supply by improving the reliability of assets within the network.						
Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, High Street Botley AQMA is 9.8km south west. The closest Noise Action Planning Important Area is within 6.1km south west of the option. There are residential dwellings within 25m of the option to the south. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During operation, the infrastructure is not expected to produce significant air or noise emissions, noting that it is an alteration to an existing site.	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	0	-	During construction, there will be emissions due to machinery use, vehicle movements, and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option may help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	0	0	0	The option is located within the South Downs NCA. The nearest National Landscape (Chichester Harbour) is located over 15km south east of the option. The option is within South Downs National Park. The nearest area of greenbelt is over 34km north east. As all works are proposed within an existing pumping station, any	Best practicable means to minimise visual intrusion during construction.	0	0	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

						construction or operation effects are considered negligible.						
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	-	The option is within 500m of one Grade I listed building and seven Grade II listed buildings. The nearest Scheduled Monument is approximately 16km north west. Droxford Conservation Area is 16km north. Warnford Park is a Registered Park 5.9km north east of the option. The option is approximately 12km from the nearest Registered Battlefield. Historic land use mapping indicates the option lies within an area of enclosed agricultural land. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown).	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via engagement with heritage specialist.	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	0	+	0	Saint Peter's Church Soberton is 470m north east of the option. The nearest school is Droxford Junior School located 1.8km north west of the option. The nearest Country Park is over 11km north east. Given the nature of the works there is not anticipated to be any effects on the local community or users of these community facilities during construction. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	0	-	0	-	Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump is installed, contributing to resource demand.	Reuse excavated material and consider use of trenchless techniques during construction.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

	To avoid negative effects on built assets / infrastructure	0	0	+	0	The nearest major road, Wickham Road (A32) is 360m west of the option. A National Cycle Network is situated within 10km east of the option. The nearest railway track is 8.2km south west of the option. The option is 400m west of the nearest CRoW Access Land and Registered Common Land. The nearest overhead electricity line is 1.4km south west. The nearest substation Is Lovedean 400kv, located 7.2km south east. Holywell Estate historic landfill site is 1.3km south west of the option. The nearest Permitted Waste Site is 4.8km south west of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation.	Best practice measures including a Traffic Management Plan to be implemented to minimise disturbance during construction.	0	0	+	0	
								Characterisation of effects			
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

E.7 Changing Pump at Source R

Option ID	
Option Name	Changing Pump at Source R
Option Description	Source R provides an individual annual licence quantity of 22Ml/d from 3 boreholes and forms part of the Source Q Group Licence (Source Q, Source R, Source S and Source T) which has an annual average licence rate of 28.38Ml/d. The 3 boreholes Deepest Advisable Pumping Water Level (DAPWL) sits at 17mAOD (BH1) and 18mAOD (BH2). The pump for BH1 sites at -13.9mAOD and -12.7mAOD for BH2. BH3 is not currently in service. The constraint at this source during low groundwater level is the operational pump capacity. The current pumps would not be able to cope with the increase in hydraulic head as groundwater levels falls past a certain point. **The drought option for Source R is to remove the constraint by replacing the current pumps with ones with a higher rating to allow abstraction up to the licenced amount as groundwater levels continue to recede.**
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	0	---	There are no SPAs, SACs or Ramsar Sites within 3km of the option. Duncton to Bignor Escarpment SAC is located 7km north east of the option. Solent Maritime SAC and Chichester and Langstone Harbours SPA and Ramsar site are over 10km south west. The HRA Stage 1 did not identify any LSEs in relation to the European sites considered (Duncton to Bignor Escarpment SAC; Solent and Dorset Coast SPA (Marine Component); Singleton and Cocking Tunnels SAC; Pagham Harbour SPA; Pagham Harbour Ramsar; The Mens SAC; and Ebernoe Common SAC), and a Stage 2 AA was not required. Eartham Pit, Boxgrove SSSI is approximately 2.2km north west of the option and Halnaker Chalk Pit SSSI is 2.7km north west. The nearest LNR, Fairmile Bottom, is 4.4km north east and the nearest NNR, Kingley Vale, is over 11km north west of the option. The nearest area of ancient woodland is 820m north west of the option. There are areas of deciduous woodland priority habitats near the option with the closest located 30m north. Pagham Harbour RSPB Reserve is located approximately over 10km south west of the option.	Best practice methods to be implemented to minimise disturbance effects and habitat loss. During pump lowering or replacement, pollution control best practices including spill kits, drip trays, and controlled storage of fuels and chemicals, will be applied at all times. This is expected to include implementation of a robust CEMP which outlines measures to protect areas of biodiversity value such as pre-construction ecological checks, seasonal timing controls and biosecurity protocols. Further assessment and monitoring of ecological indicators will be required to understand the effects during operation.	0	-	0	--

						Construction impacts are expected to be minimal as works are confined to an existing borehole site, though temporary impacts may arise from noise, vibration, or increased human presence, which could affect nearby wildlife. During operation, there is a risk of water quality issues such as increased turbidity or nitrates, which could impact sensitive species. Groundwater Dependent Terrestrial Ecosystems (GWDTEs) may also be impacted by reduced groundwater flows during operation of the option.		**Characterisation of effects**				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	0	0	-	The option is located within Grade 3 agricultural land, which may be best and most versatile land. However, it is noted that all works are proposed within an existing pumping station and therefore construction effects are considered negligible. There is the potential that greater abstraction of groundwater will remove moisture from the soil, causing it to dry and increase the risk of erosion.	None identified	0	0	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	0	-	+	---	The option is 1.4km north west of Lidsey Rife (WFD River). The option falls within the South East River Basin District, SPZ 2c and a Nitrate Vulnerable Zone. The closest Surface Drinking Water Safeguard Zone (DWSZ) is 8.3km north and the closest Groundwater DWSZ is within 100m north. During construction, there is potential for short-term impacts on water quality due to ground disturbance, runoff or accidental spills. During operation, there is a risk that turbidity, nitrate or other water quality issues could materialise when pumping under low groundwater levels. Changes to abstraction can mobilise older, mineral rich water and there is potential for a deterioration in drinking water quality and increased treatment requirements during operation of the option. In terms of water quantity, pumping more groundwater may reduce baseflows to rivers and streams and cause lower river flows. The option may also increase abstraction from deeper	Further hydrogeological assessment and monitoring of groundwater levels and river flows is required.	0	-	+	--	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

						aquifer zones, reducing groundwater levels and potentially leading to longer recovery times after drought. However, the option will contribute to resilience of supply by improving the reliability of assets within the network.						
Air	To reduce and minimise air and noise emissions	0	-	0	0	The option is not within an AQMA and the closest, Chichester (St Pancras) AQMA is 7.7km south west. The closest Noise Action Planning Important Area is within 340m north west of the option. There are residential dwellings within 250m of the option to the north and south. During construction, activities such as pump replacement or lowering may generate air and noise emissions from machinery and vehicles. During operation, the infrastructure is not expected to produce significant air or noise emissions, noting that it is an alteration to an existing site.	Best practice mitigation measures implemented during construction. This is expected to include implementation of a robust CEMP which outlines measures such as use of low noise and low emissions vehicles and equipment.	0	-	0	0		
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	0	-	During construction, there will be emissions due to machinery use, vehicle movements, and material transport. During operation, energy demand may increase if a higher-rated pump is installed to maintain abstraction at lower groundwater levels, potentially leading to a slight increase in greenhouse gas emissions. However, effects are not expected to be significant.	Investigate use of renewables during operation for energy supply.	0	-	0	-	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	No impacts are identified during construction. By enabling continued abstraction during drought conditions, the option may help to maintain water supply and reduce pressure on existing systems, supporting infrastructure resilience.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape	0	0	0	0	The option is located within the South Coast Plain NCA. The nearest National Landscape (Chichester Harbour) is located 9.9km south west of the option.	Best practicable means to minimise visual intrusion during construction.	0	0	0	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**

	character and visual amenity					South Downs National Park is 400m north of the option. The nearest area of greenbelt is over 24km north. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible.		Short term Temporary Medium	Short term Temporary Medium	Short term Temporary Medium	Short term Temporary Medium	**Duration** **Permanence** **Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	0	0	0	-	The option is within 500m of a Grade II listed building. The nearest Scheduled Monument is 2.7km south west. Norton Conservation Area is 950m east. Denmans Garden is a Registered Garden 490m north-east of the option. The option is approximately 40km from the nearest Registered Battlefield. Historic land use mapping indicates the option lies within an area of enclosed agricultural land. As all works are proposed within an existing pumping station, any construction or operation effects are considered negligible. During operation, there is the potential that lowering of the water table could result in adverse impacts on waterlogged historic remains (known or unknown).	Best practice measures to be implemented to minimise setting effects during construction and consideration of unexpected heritage discovery in CEMP. Impacts through lowering of the water table on any heritage assets (including non-designated heritage assets) that are waterlogged may be investigated via engagement with heritage specialist.	0 **Characterisation of effects** Small Local Short term Temporary Medium	0 Small Local Short term Temporary Medium	0 Small Local Short term Temporary Medium	- Small Local Short term Temporary Medium	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	0	+	0	Barchester – Westergate House Care Home is 400m north east of the option. The Coach House Education Centre is 980m north east and Seasons Nursery Aldingbourne is 850m north west. The Croft Surgery is approximately 1.5km south east. The nearest places of worship, Westergate Christian Fellowship and Westergate Methodist Church, are 1.5km south of the option. The nearest Country Park is 5.7km north west of the option. Given the nature of the works there is not anticipated to be any effects on the local community or users of these community facilities during construction. During operation, the option will help to maintain water supply during drought conditions, which could result in a positive effect on the local economy and social wellbeing.	None identified	0 **Characterisation of effects** Small Local Short term Temporary Medium	0 Small Local Short term Temporary Medium	+ Small Local Short term Temporary Medium	0 Small Local Short term Temporary Medium	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
		0	-	0	-			0	-	0	-	

Material Assets	To minimise resource use and waste production					Construction activities will require materials, energy and may generate waste, though effects are not anticipated to be significant. During operation, energy use may increase slightly if a higher-rated pump is installed, contributing to resource demand.	Reuse excavated material and consider use of trenchless techniques during construction.	**Characterisation of effects**			
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
	To avoid negative effects on built assets / infrastructure	0	0	+	0	The nearest major road, Arundel Road (A27) is 320m north of the option. A National Cycle Network is situated within 7.9km south west of the option. The nearest railway track is 2.5km south of the option. The option is 850m south east of the nearest CRoW Access Land and Registered Common Land. The nearest overhead electricity line is 17km north. The nearest substation Is Lovedean 400kv, located over 27km north west. Roughay Farm historic landfill site is over 1.7km north west of the option. The nearest Permitted Waste Site is 1.6km south west of the option. As all works are proposed within an existing pumping station construction effects are considered negligible. Upgrade of this infrastructure would however ensure that it remains a valued asset, with beneficial effects during operation.	Best practice measures including a Traffic Management Plan to be implemented to minimise disturbance during construction.	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Short term	Short term	**Duration**
								Temporary	Temporary	Temporary	Temporary	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

E.8 Temporary Use Bans (TUBs)

Option ID	
Option Name	Temporary Use Bans (TUBs)
Option Description	Portsmouth Water can impose restrictions on customer's water use through Temporary Use Bans (TUBs), otherwise known as hosepipe bans, as set out in Section 36 of the Flood and Water Management Act 2010 and the Water Use (Temporary Bans) Order 2010. The legislation sets out that water companies may "prohibit one or more specified uses of water supplied by it if it thinks that it is experiencing, or may experience, a serious shortage of water for distribution". TUBs may need to be implemented if voluntary water restraints have not reduced demand sufficiently on their own. Under the ban, the following uses will be restricted: ▪ Watering a garden using a hosepipe; ▪ Cleaning a private motor vehicle using a hosepipe; ▪ Watering plants on domestic or other non-commercial premises using a hosepipe; ▪ Cleaning a private leisure boat using a hosepipe; ▪ Filling or maintaining a domestic swimming or paddling pool; ▪ Drawing water, using a hosepipe, for domestic recreational use; ▪ Filling or maintaining a domestic pond using a hosepipe; ▪ Filling or maintaining an ornamental fountain; ▪ Cleaning walls or windows of domestic premises using a hosepipe; ▪ Cleaning paths or patios using a hosepipe; ▪ Cleaning other artificial outdoor surfaces using a hosepipe.
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	N/A	N/A	+	-	TUBs may help protect biodiversity, Groundwater Dependent Terrestrial Ecosystems (GWDTE) and priority habitat by reducing water abstraction and conserving water in the natural environment. However, the restrictions on domestic water use, such as watering plants and filling ponds, may have minor adverse effects on pollinators, insects, fish (domestic ponds) and birds (bird baths) where gardens are found to support such biodiversity.	None identified	N/A	N/A	+	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	N/A	N/A	+	-	TUBs may have a minor and localised impact on soil quality, due to reduced irrigation and a potential increase in dust-related erosion. There may also be minor beneficial effects in areas associated with water abstraction where the conservation of water and reduced abstraction help to maintain soil moisture. However, given the	None identified	N/A	N/A	+	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**

						temporary nature of the intervention, these effects are not anticipated to be significant.		N/A	N/A	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	N/A	N/A	++	0	This option is temporary and implemented only during drought conditions. By reducing non-essential water use, TUBs directly lower demand on public supply, resulting in decreased abstraction from groundwater and surface water sources. This will help maintain river flows and protect the integrity of waterbodies during periods of stress. Additionally, by prioritising water availability for essential services, the option enhances system resilience.	None identified	N/A	N/A	++	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**
Air	To reduce and minimise air and noise emissions	N/A	N/A	+	0	This option is temporary and implemented only during drought conditions. It may result in minor positive effects on air quality due to a reduction in air and noise emissions associated with water supply / treatment. However, effects are not expected to be significant.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	N/A	N/A	+	0	By reducing water consumption, the option may lead to a decrease in energy use associated with water supply / treatment. This may result in minor reductions in greenhouse gas emissions. However, effects are not expected to be significant.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	N/A	N/A	+	0	By reducing water demand and potentially lowering abstraction rates, TUBs may contribute to maintaining soil moisture and ground conditions during droughts. This can have indirect beneficial effects on built infrastructure by reducing the risk to foundations etc.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape	N/A	N/A	0	-	TUBs may result in minor, short-term effects on local visual amenity, particularly in residential areas. Restrictions on watering gardens and maintaining ornamental fountains and ponds could lead to a decline in the appearance of green spaces and gardens, especially	None identified	N/A	N/A	0	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**

	character and visual amenity					during prolonged dry periods. These effects are likely to be temporary and reversible, with limited impact on the wider landscape character.		N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	N/A	N/A	0	0	The option is a TUB and is therefore not likely to have a significant effect on the historic environment, though there is a potential that it could help maintain soil moisture levels which could protect some archaeological objects – as this is unknown it is not quantified.	None identified	N/A	N/A	0	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	N/A	N/A	0	-	The implementation of a TUB may have minor adverse effects on community and social well-being due to restrictions on garden and allotment irrigation and use of water for recreational purposes. There may be a slight increased risk of fires in allotments as vegetation dries out. Reduced access to water-based recreational activities may negatively affect wellbeing, particularly by limiting opportunities that enhance heat tolerance and support physical and mental resilience during higher temperatures.	None identified	N/A	N/A	0	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**
Material Assets	To minimise resource use and waste production	N/A	N/A	+	0	The TUB is unlikely to result in increased waste production or resource consumption. However, by reducing non-essential water use, the option will act to conserve resource use for the period in which it is operational.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**
	To avoid negative effects on built assets / infrastructure	N/A	N/A	0	-	Aside from minor impacts on residential gardens and private assets, such as restrictions on washing or cleaning, the implementation of this option is unlikely to affect built assets and infrastructure.	None identified	N/A	N/A	0	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**

E.9 Non-Essential Use Bans (NEUBs)

Option ID	
Option Name	Non-Essential Use Bans (NEUBs)
Option Description	Should the drought continue to get worse, or the water demand reductions from TUBs are less than expected, then Portsmouth Water can extend the ban to “non-essential” uses of water. NEUBs are a set of measures granted to water companies by the Secretary of State via a Drought Order. The Drought Direction 2016 allows water companies to restrict the use of water for the following purposes: ▪ Watering outdoor plants on commercial premises using a hosepipe; ▪ Filling or maintaining a non-domestic swimming or paddling pool; ▪ Filling or maintaining a pond; ▪ Operating a mechanical vehicle washer; ▪ Cleaning any vehicle, boat, aircraft or railway rolling stock using a hosepipe; ▪ Cleaning non-domestic premises using a hosepipe; ▪ Cleaning a window of a non-domestic building using a hosepipe; ▪ Cleaning industrial plan using a hosepipe; ▪ Suppressing dust using a hosepipe; ▪ Operating cisterns in an unoccupied building.
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	N/A	N/A	+	-	NEUBs may help protect biodiversity, Groundwater Dependent Terrestrial Ecosystems (GWDTE) and priority habitat by reducing water abstraction and conserving water in the natural environment. However, the restrictions on domestic water use, such as watering plants and filling ponds, may have minor adverse effects on pollinators, insects, fish (domestic ponds) and birds (bird baths) where gardens are found to support such biodiversity. There may be an increased risk of INNS transfer where cleaning of boats and industrial plant is not permitted.	Risk of INNS to be considered when banning washing of watercraft. Consider mandating of visual inspections to ensure no transfer of INNS.	N/A	N/A	+	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	N/A	N/A	+	-	NEUBs may have a minor and localised impact on soil quality, due to reduced irrigation and a potential increase in dust-related erosion. There may also be minor beneficial effects in areas associated with water abstraction where the conservation of water and reduced abstraction help to maintain soil moisture. However, given the temporary nature of the intervention, these effects are not anticipated to be significant.	None identified	N/A	N/A	+	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**

Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	N/A	N/A	++	0	This option is temporary and implemented only during drought conditions. By reducing non-essential water use, NEUBs directly lower demand on public supply, resulting in decreased abstraction from groundwater and surface water sources. This will help maintain river flows and protect the integrity of waterbodies during periods of stress. Additionally, by prioritising water availability for essential services, the option enhances system resilience.	None identified	N/A	N/A	++	0		
								Characterisation of effects					
								N/A	N/A	Small	Small	**Magnitude**	
								N/A	N/A	Local	Local	**Scale**	
								N/A	N/A	Short term	Short term	**Duration**	
								N/A	N/A	Temporary	Temporary	**Permanence**	
								N/A	N/A	High	High	**Certainty**	
Air	To reduce and minimise air and noise emissions	N/A	N/A	+	0	This option is temporary and implemented only during drought conditions. It may result in minor positive effects on air quality due to a reduction in air and noise emissions associated with water supply / treatment and with the activities banned under the option. However, effects are not expected to be significant.	None identified	N/A	N/A	+	0		
								Characterisation of effects					
								N/A	N/A	Small	Small	**Magnitude**	
								N/A	N/A	Local	Local	**Scale**	
								N/A	N/A	Short term	Short term	**Duration**	
								N/A	N/A	Temporary	Temporary	**Permanence**	
								N/A	N/A	Medium	Medium	**Certainty**	
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	N/A	N/A	+	0	By reducing water consumption, the option may lead to a decrease in energy use associated with water supply / treatment and with the activities banned under the option. This may result in minor reductions in greenhouse gas emissions. However, effects are not expected to be significant.	None identified	N/A	N/A	+	0		
								Characterisation of effects					
								N/A	N/A	Small	Small	**Magnitude**	
								N/A	N/A	Local	Local	**Scale**	
								N/A	N/A	Short term	Short term	**Duration**	
								N/A	N/A	Temporary	Temporary	**Permanence**	
								N/A	N/A	High	High	**Certainty**	
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	N/A	N/A	+	0	By reducing water demand and potentially lowering abstraction rates, NEUBs may contribute to maintaining soil moisture and ground conditions during droughts. This can have indirect beneficial effects on built infrastructure by reducing the risk to foundations etc.	None identified	N/A	N/A	+	0		
								Characterisation of effects					
								N/A	N/A	Small	Small	**Magnitude**	
								N/A	N/A	Local	Local	**Scale**	
								N/A	N/A	Short term	Short term	**Duration**	
								N/A	N/A	Temporary	Temporary	**Permanence**	
								N/A	N/A	High	High	**Certainty**	
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	N/A	N/A	0	-	NEUBs may result in minor, short-term effects on local visual amenity. Restrictions on watering gardens, maintaining ornamental fountains and ponds and washing of domestic and commercial premises could lead to a decline in the appearance, particularly of green spaces and gardens, especially during prolonged dry periods. These	None identified	N/A	N/A	0	-		
								Characterisation of effects					
								N/A	N/A	Small	Small	**Magnitude**	
								N/A	N/A	Local	Local	**Scale**	
								N/A	N/A	Short term	Short term	**Duration**	
								N/A	N/A	Temporary	Temporary	**Permanence**	

						effects are likely to be temporary and reversible, with limited impact on the wider landscape character.		N/A	N/A	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	N/A	N/A	0	0	The option is a NEUB and is therefore not likely to have a significant effect on the historic environment, though there is a potential that it could help maintain soil moisture levels which could protect some archaeological objects – as this is unknown it is not quantified.	None identified	N/A	N/A	0	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	N/A	N/A	0	-	The implementation of a NEUB may have minor adverse effects on community and social well-being due to restrictions on garden and allotment irrigation and use of water for recreational purposes. There may be a slight increased risk of fires in allotments as vegetation dries out. Risk to human health and wellbeing may be increased where dust suppression measures cannot be implemented and cleaning of paths and other infrastructure restricted. This may increase health and safety risks. Businesses reliant on water use, such as window cleaning and car washing services, may experience financial strain due to reduced operational capacity.	Allowing allotments limited supplies of water and ensuring high levels of communication before, during and following the implementation of these measures will mitigate effects. Consider exemptions where dust suppression would alleviate impacts on particularly vulnerable groups e.g. construction works near hospitals, schools, nursery and care homes.	N/A	N/A	0	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	N/A	N/A	+	0	The NEUB is unlikely to result in increased waste production or resource consumption. However, by reducing non-essential water use, the option will act to conserve resource use for the period in which it is operational.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**
	To avoid negative effects on built assets / infrastructure	N/A	N/A	0	-	While temporary, the option is likely to adversely impact the maintenance of buildings and industrial plant.	None identified	N/A	N/A	0	-	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	High	High	**Certainty**

E.10 Enhanced Leakage Reduction

Option ID	
Option Name	Enhanced Leakage Reduction
Option Description	Measures to enhance leakage reduction include: ▪ Increasing resources to find and fix leaks (enhancing Active Leakage Control); ▪ Reducing the time taken to repair a leak once found by customers; ▪ Increasing communications with customers to further encourage them to report any leaks; ▪ Increasing the frequency of DMA flow monitoring; ▪ Reviewing and adapting the ongoing leakage programme to prioritise fixing leaks over other repair activities; ▪ Reducing pressure across the supply network (see pressure management option dossier for more details).
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	0	-	+	0	There is potential for minor adverse effects during construction (leakage works) on biodiversity and priority habitats, due to ground disturbance and noise. During operation, by reducing water loss and improving overall network efficiency, this option may help maintain more stable water availability in natural systems, particularly during drought conditions. Quicker leak repairs may also reduce unintended water discharge into habitats, minimising disruption to soil and aquatic ecosystems.	None identified	0	-	+	0
								Characterisation of effects			
								Small	Small	Small	Small **Magnitude**
								Local	Local	Local	Local **Scale**
								Short term	Short term	Long term	Long term **Duration**
								Temporary	Temporary	Permanent	Permanent **Permanence**
								Medium	Medium	Medium	Medium **Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	0	-	+	0	Where leakage works include installation of new mains, this has the potential to disturb contaminated material and impact on BMV agricultural land during construction. During operation, the option may result in slight beneficial effects on soil quality. By reducing unintended water discharge, the option may help prevent soil saturation, erosion, and nutrient leaching. Additionally, reducing pressure across the supply network may lower the risk of pipe bursts, which can disrupt soil structure and lead to localised contamination.	None identified	0	-	+	0
								Characterisation of effects			
								Small	Small	Small	Small **Magnitude**
								Local	Local	Local	Local **Scale**
								Short term	Short term	Long term	Long term **Duration**
								Temporary	Temporary	Permanent	Permanent **Permanence**
								Medium	Medium	Medium	Medium **Certainty**
Water	To protect and enhance the quantity and	0	-	+++	0	Negative effects during construction (leakage works) on water quality are not considered significant.	None identified	0	-	+++	0

	quality of surface, groundwater, estuarine and coastal waterbodies					During operation, by minimising water loss across the supply network, the option helps to maintain the quantity of surface and groundwater bodies during drought conditions. Reduced leakage also lowers the risk of unintended discharge that could affect water quality or disrupt sensitive habitats.		**Characterisation of effects**				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Air	To reduce and minimise air and noise emissions	0	-	+	0	Construction activities involved in leakage reduction, such as repairs to mains, may result in minor air and noise emissions from vehicle use and equipment. Where water demand is reduced there may be some positive effects from a reduction in air and noise emissions associated with water supply/treatment; however, this is not anticipated to be significant.	Maintain plant and equipment. Use low or zero emissions equipment / plant.	0	-	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	0	-	+	0	Construction activities involved in leakage reduction, such as repairs to mains, may result in minor carbon emissions from vehicle use and equipment, as well as embodied carbon in materials. Where water demand is reduced through reduced leakage, there may be positive effects from a reduction in greenhouse gas emissions associated with water supply/treatment.	None identified	0	-	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	0	0	+	0	By improving the efficiency and resilience of the water supply network and reducing leakage, the option may help reduce vulnerability of infrastructure during drought conditions.	None identified	0	0	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	0	-	+	0	Potential for negative effects during construction (leakage works) on the landscape. During operation, minor positive impacts are anticipated as the option may improve water efficiency and retain water within the environment.	None identified	0	-	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
		0	-	0	0		None identified	0	-	0	0	

Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains					Leakage reduction works may pose minor risks to the historic environment during construction, particularly through ground disturbance near heritage assets.		**Characterisation of effects**				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	0	-	+	0	Potential for minor temporary negative effects on wellbeing during construction (leakage reduction works) which give rise to disturbance (noise, vibration, air quality). Positive operational effects identified through securing more resilient water supply.	Community engagement. Maintain plant and equipment. Use of low emission or zero emission equipment / plant.	0	-	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	0	-	++	0	Leakage reduction works may involve pipe rehabilitation activities that generate waste materials such as spoil, pipe sections, and subsurface fill. Once operational, leakage reduction measures will contribute positively by reducing water loss, thereby minimising resource consumption and supporting more efficient use of infrastructure.	None identified	0	-	++	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**
	To avoid negative effects on built assets / infrastructure	0	-	+	0	Potential for negative effects during construction (leakage works) on built assets and infrastructure, such as road surfacing. During operation, reduced water leakage may prevent damage such as ground instability that may affect buildings.	None identified	0	-	+	0	
								Characterisation of effects				
								Small	Small	Small	Small	**Magnitude**
								Local	Local	Local	Local	**Scale**
								Short term	Short term	Long term	Long term	**Duration**
								Temporary	Temporary	Permanent	Permanent	**Permanence**
								Medium	Medium	Medium	Medium	**Certainty**

E.11 Pressure Management

Option ID	
Option Name	Pressure Management
Option Description	Pressure management strongly relates to reducing leakage. A 'calm' network, where pressures are consistent as possible throughout the day, increases the life of pipes and reduces the number of leaks and bursts that occur. In a period of drought, pressure management can be used to reduce the demand for water and water lost through leakage. It can also help conserve what water resources are available. Portsmouth Water (and other water companies) can reduce customers water pressure to the guaranteed standard of seven metres static head (0.7 bar) in the communication pipe. Problematic District Metered Areas (DMAs) such as those with high consumption, can also be rezoned within a Water Resource Zone (WRZ). It is important that throughout the duration of a drought event the activities to reduce pressure within the network are enhanced. This can include reducing the pressure below the guaranteed standard or only reducing the pressure during the day. It is difficult to estimate the demand saving benefit of this option as it will ultimately vary across the WRZ. The location for this option will focus in hot spot areas within the DMAs.
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Biodiversity	To protect and enhance biodiversity, priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain	N/A	N/A	+	0	Pressure management increases the life of pipes and reduces the number of leaks and bursts that occur, and may help maintain more stable water availability in natural systems, particularly during drought conditions. It may also help to reduce unintended water discharge through leaks or bursts into habitats, minimising disruption to soil and aquatic ecosystems.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Soil	To protect and enhance the functionality, quantity and quality of soils	N/A	N/A	+	0	Pressure management may result in slight beneficial effects on soil quality. By reducing unintended water discharge through leaks, the option may help prevent soil saturation, erosion, and nutrient leaching. Additionally, reducing pressure across the supply network may lower the risk of pipe bursts, which can disrupt soil structure and lead to localised contamination.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	N/A	N/A	++	0	During operation, by minimising water loss across the supply network and conserving water resources, the option helps to maintain the quantity of surface and groundwater bodies during drought conditions. Reducing the chances of leakage or burst pipes also lowers the risk of unintended discharge that could affect water quality or disrupt sensitive habitats.	None identified	N/A	N/A	++	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**

								N/A	N/A	Medium	Medium	**Certainty**
Air	To reduce and minimise air and noise emissions	N/A	N/A	+	0	Where water resources are conserved through reduced pressure there may be some positive effects from a reduction in air and noise emissions associated with water supply/treatment; however, this is not anticipated to be significant.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to Net Zero by 2030 and contribute to national target of Net Zero by 2050	N/A	N/A	+	0	Where water resources are conserved through reduced pressure, there may be positive effects from a reduction in greenhouse gas emissions associated with water supply/treatment.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	N/A	N/A	+	0	By improving the efficiency and resilience of the water supply network through reducing leakage and reducing pressure, the option may help reduce vulnerability of infrastructure during drought conditions.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	N/A	N/A	+	0	During operation, minor positive impacts are anticipated as the option may improve water efficiency and retain water within the environment.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	N/A	N/A	0	0	No operational effects have been identified in terms of cultural heritage.	None identified	N/A	N/A	0	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**

								N/A	N/A	Medium	Medium	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	N/A	N/A	+	0	Positive operational effects are anticipated through securing a more resilient water supply.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
Material Assets	To minimise resource use and waste production	N/A	N/A	++	0	Once operational, pressure management will contribute positively by reducing water loss and conserving water, thereby minimising resource consumption and supporting more efficient use of infrastructure.	None identified	N/A	N/A	++	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**
	To avoid negative effects on built assets / infrastructure	N/A	N/A	+	0	During operation, reduced water leakage and burst pipes may prevent damage such as ground instability that may affect buildings.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Permanent	Permanent	**Permanence**
								N/A	N/A	Medium	Medium	**Certainty**

E.12 Enhanced Communications Campaign

Option ID	
Option Name	Enhanced Communications Campaign
Option Description	To include social media posts, local press and radio, posters in public buildings, email postscripts, having discussions with stakeholders, NAVs, and groups like Citizen Advice etc.
Embedded Mitigation	None identified

SEA Topic	SEA Objective	Construction		Operational		Comment	Additional Mitigation	Residual Construction		Residual Operational	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Biodiversity	To protect and enhance biodiversity,	N/A	N/A	+	0	Positive effects on biodiversity due to awareness campaigns resulting in protection of water	None identified	N/A	N/A	+	0

	priority species, vulnerable habitats and habitat connectivity and achieve biodiversity net gain					resources, increasing availability for water dependant habitat and species.		**Characterisation of effects**				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Soils	To protect and enhance the functionality, quantity and quality of soils	N/A	N/A	+	0	During operation, minor positive impacts are anticipated as the option may improve water efficiency and retain water within the environment, helping to prevent the erosion of soils.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Water	To protect and enhance the quantity and quality of surface, groundwater, estuarine and coastal waterbodies	N/A	N/A	+	0	Positive effects for water resources due to awareness campaigns resulting in reduced pressures on water supplies.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Medium	Medium	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Long term	Long term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Air	To reduce and minimise air and noise emissions	N/A	N/A	+	0	There may be some positive effects from a reduction in air and noise emissions associated with water supply/treatment; however, this is not anticipated to be significant.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Reginal	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Greenhouse Gas Emissions	To achieve Portsmouth Water's target of reducing carbon emissions to	N/A	N/A	+	0	This option has the potential to reduce the need for water, therefore reducing operational carbon emissions.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**

	Net Zero by 2030 and contribute to national target of Net Zero by 2050							N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Climate Factors	To reduce vulnerability of built infrastructure to climate change risks and hazards	N/A	N/A	+	0	Positive effects for resilient supplies due to awareness campaigns resulting in water being kept within the environment.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Landscape	To conserve, protect and enhance landscape, townscape and seascape character and visual amenity	N/A	N/A	+	0	During operation, minor positive impacts are anticipated as the option may improve water efficiency and retain water within the environment.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Cultural Heritage	To conserve, protect and enhance heritage assets and the historic environment, including archaeological remains	N/A	N/A	0	0	No effects anticipated.	None identified	N/A	N/A	0	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Population and Human Health	To maintain and enhance the health and wellbeing of the local community, including economic and social wellbeing	N/A	N/A	+	0	Increased awareness and actions to conserve water anticipated to result in improved health and wellbeing where the measures reduce need for more disruptive action.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
Material Assets	To minimise resource use and waste production	N/A	N/A	+	0	Increased awareness and actions to conserve water acts to minimise resource use and waste production.	None identified	N/A	N/A	+	0	
								Characterisation of effects				
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**

							N/A	N/A	Short term	Short term	**Duration**
							N/A	N/A	Temporary	Temporary	**Permanence**
							N/A	N/A	Low	Low	**Certainty**
	To avoid negative effects on built assets / infrastructure	N/A	N/A	+	0	No effects anticipated.	None identified	N/A	N/A	+	0	
								Characterisation of effects			
								N/A	N/A	Small	Small	**Magnitude**
								N/A	N/A	Regional	Regional	**Scale**
								N/A	N/A	Short term	Short term	**Duration**
								N/A	N/A	Temporary	Temporary	**Permanence**
								N/A	N/A	Low	Low	**Certainty**

Appendix F. Option Figures

Due to file size, these figures are included in a separate volume.

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