FOOTPRINT ECOLOGY

Christchurch Neighbourhood Plan HRA

Durwyn Liley & Emily Rush

FOOTPRINT ECOLOGY, FOREST OFFICE, BERE ROAD,
WAREHAM, DORSET BH20 7PA
WWW.FOOTPRINT-ECOLOGY.CO.UK
01929 552444

FOOTPRINT ECOLOGY

Footprint Ecology is a small, employee-owned, ecological consultancy with an ethical focus. Founded in 2004 and based in Purbeck, Dorset we are catalysts for change, collaborating with organisations that share our commitment to sustainability and social responsibility. We create practical solutions to complex ecological challenges across a diverse portfolio including nature conservation, outdoor recreation and associated strategic planning.

Footprint Contract Reference: 872
Date: 11th November 2025
Version: Final
Recommended Citation: Liley, D. & Rush, E. (2025). Christchurch Neighbourhood Plan HRA. Report by Footprint Ecology.

Summary

The Conservation of Habitats and Species Regulations 2017 (as amended) require local authorities to assess the impact of their local plan on the internationally important nature conservation sites in and around their administrative areas. The task is achieved by means of a Habitats Regulations Assessment (HRA). Sites that are relevant to the assessment are 'European sites' and include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites.

These European sites are the top tier of protected sites in the UK and many of the adjacent local areas are designated, reflecting the importance of the area for nature conservation. There are 22 European sites in total within the 20kmm radius, of which 7 sites are within or abut the Christchurch Neighbourhood Plan area. These include the Dorset Heaths SAC, the Dorset Heathlands SPA and Ramsar, as well as the River Avon SAC and Avon Valley SPA and Ramsar.

An HRA asks very specific questions of a plan. Firstly, it 'screens' the plan to identify if there is a risk that certain policies or allocations may have a 'likely significant effect' on a European site, alone or (if necessary) in-combination with other plans and projects. If the risk of likely significant effects can be ruled out, then the plan may be adopted but if they cannot, the plan must be subjected to the greater scrutiny of an 'appropriate assessment'. Following an appropriate assessment, a Plan may be adopted if an adverse effect on the integrity of the site can be ruled out, alone or in-combination with other plans or projects.

This document is the HRA of the Christchurch Neighbourhood Plan ('the Plan'). Neighbourhood plans give communities direct power to develop a shared vision for their neighbourhood and shape the development and growth of their local area. The Plan has been revised to incorporate a number of small text changes that add clarity or further detail around HRA matters and European sites – following initial feedback as part of the HRA work.

All policies were screened for likely significant effects and the screening identified risks (in the absence of any mitigation measures) in relation to the following impact pathways and policies:

- Recreation (including urban effects): likely significant effects in-combination for all allocations with respect to the Dorset Heaths SAC/SPA/Ramsar.
- Recreation: likely significant effects in-combination for all allocations with respect to the the New Forest SAC/SPA/Ramsar;
- Recreation/disturbance: likely significant effects alone for the Solent and Dorset Coast SPA; policy 17.
- Water quality: likely significant effects in-combination for nutrient-neutrality impacts and the River Avon SAC; policies 14, 15, 18 and 19.
- Water quality: likely significant effects in-combination for the Solent and Dorset Coast SPA; policies 14, 15, 16, 18 and 19.

- Water quality: likely significant effects alone for water quality and the River Avon SAC/Solent and Dorset Coast SPA in terms of run-off and surface water contamination for Policy 17.
- Air quality: likely significant effects in-combination for all allocations with respect to the Dorset Heaths SAC/SPA/Ramsar and New Forest.

Each of the above pathways is taken to appropriate assessment where mitigation measures (as set out in Policy 7) are considered. Following appropriate assessment, it can be concluded that the Plan is in conformity with the Habitats Regulations, and at a plan level a conclusion of no adverse effects on European site integrity, alone or in-combination with other plans or projects, can be drawn.

Contents

Acknowledgements

This HRA has been commissioned by Christchurch Town Council. Our thanks to Zeynap Aktuna, Councillor Viv Charrett and Jo Witherden for useful comment and discussion. Thanks also to Nick Squirrell (Natural England) for additional information and advice.

1. Introduction

1.1 This document is a Habitat Regulations Assessment (HRA) report to accompany the Christchurch Neighbourhood Plan ('the Plan'). The report has been prepared by Footprint Ecology on behalf of Christchurch Town Council. An HRA assesses the implications of a plan for the most important nature conservation sites – 'European sites' in the area.

The Christchurch Neighbourhood Plan

1.2 Neighbourhood plans give communities direct power to develop a shared vision for their neighbourhood and shape the development and growth of their local area.

1.3 The Christchurch Neighbourhood Plan has been prepared by a steering group made up of local residents, local business representatives and Town Councillors. The Plan relates to the Parish of Christchurch and covers the period from 2024 – 2034.

1.4 The Plan contains 19 policies which fall within five broad themes encompassing:

- Design and Heritage;
- Green and Open Spaces;
- Getting About;
- Town Centre, Shops and Services;
- Place-making.

1.5 This HRA report accompanies the pre-submission, draft plan ('Regulation 14') and is based on a version of the Plan initially shared with Footprint Ecology in September 2025 (and an updated version then shared in late October 2025). The draft plan will be subject to consultation, following which it may be changed prior to being submitted to BCP Council who will organise the examination and referendum. The HRA will be finalised at the point at which the plan is finalised and ready for adoption.

1.6 Neighbourhood plans form part of the development plan for a planning authority and must be in general conformity with the strategic policies of the development plan in force at the time. The relevant adopted plan in this case is the Christchurch and East Dorset Local Plan Core Strategy (adopted in 2014) and saved policies of the earlier Christchurch Borough Council Local

Plan. BCP Council did submit a revised Local Plan for examination in 2024, however this was withdrawn on the advice of the Planning Inspector. It is likely that there will be no new revised BCP Local Plan in place until 2028, at which point it may be necessary to revise and update the Christchurch Neighbourhood Plan. In the meantime, given the age of the adopted plan, the Neighbourhood Plan will play an important role in providing clarity and further detail underpinning local planning decisions.

Habitats Regulations Assessment process

1.7 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the 'Habitats Regulations'. These are domestic law and remain in place post-Brexit. The most recent amendments (the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019[1]) take account of the UKs departure from the EU.

1.8 Regulation 105 *et seq* addresses the assessment of local plans and determines the scope of this HRA alongside recent Government Guidance on the interpretation and application of the Regulations[2] .

European sites

1.9 'European sites' are those over which the provisions of the Habitat Regulations exert an influence, through statute or policy. They are the top tier of protected sites in the UK and are of international importance for nature conservation. Prior to Brexit, these were part of the Natura 2000 network of sites which formed the largest global network of protected sites.

1.10 Sites that are afforded statutory protection and included within Regulation 8 of the Habitats Regulations are now part of the 'national network' and referred to as Habitats sites. Statutory sites comprise of the following:

- Special Areas of Conservation (SACs) designated under the 1992 Habitats Directive;

[1] The amending regulations generally seek to retain the requirements of the 2017 Regulations but with adjustments for the UK's exit from the European Union. See Regulation 4, which also confirms that the interpretation of these Regulations as they had effect, or any guidance as it applied, before exit day, shall continue to do so.

[2] Habitats regulations assessments: protecting a European site. Defra and Natural England. 24 February 2021. https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

- Sites of Community Importance (SCI) included on the list of such sites compiled by the European Commission and submitted before the UK left the EU;
- Candidate SACs (cSACs), submitted by the UK government to the European Commission before Exit day as eligible for selection as an SCI;
- Special Protection Areas (SPAs) classified under the 1979 Birds Directive;
- Potential SPAs (pSPAs) include potential sites as designated by the European Comission under the Conservation of Wild Birds Directive (2009).
- Areas providing formal compensation for damage to a European site.

1.11 According to long-established Government policy[3] and the NPPF, Ramsar sites (Wetlands of International Importance), are afforded the same level of protection although these do not form part of the national network.

1.12 The overarching objectives of the national network are to maintain, or where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive to a Favourable Conservation Status. They also contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

1.13 The appropriate authorities must have regard to the importance of protected sites, coherence of the national site network and threats of degradation or destruction (including deterioration and disturbance of protected features) on SPAs and SACs.

Process

1.14 Plans and projects which are directly connected with or necessary to the management of a European site may be exempt from the HRA process. For all other plans and projects, assessment proceeds through a step-by-step process. The step-by-step process of HRA is summarised in Figure 1.

[3] ODPM Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (16 August 2005), to be read in conjunction with the current NPPF, other Government guidance and the current version of the Habitats Regulations.

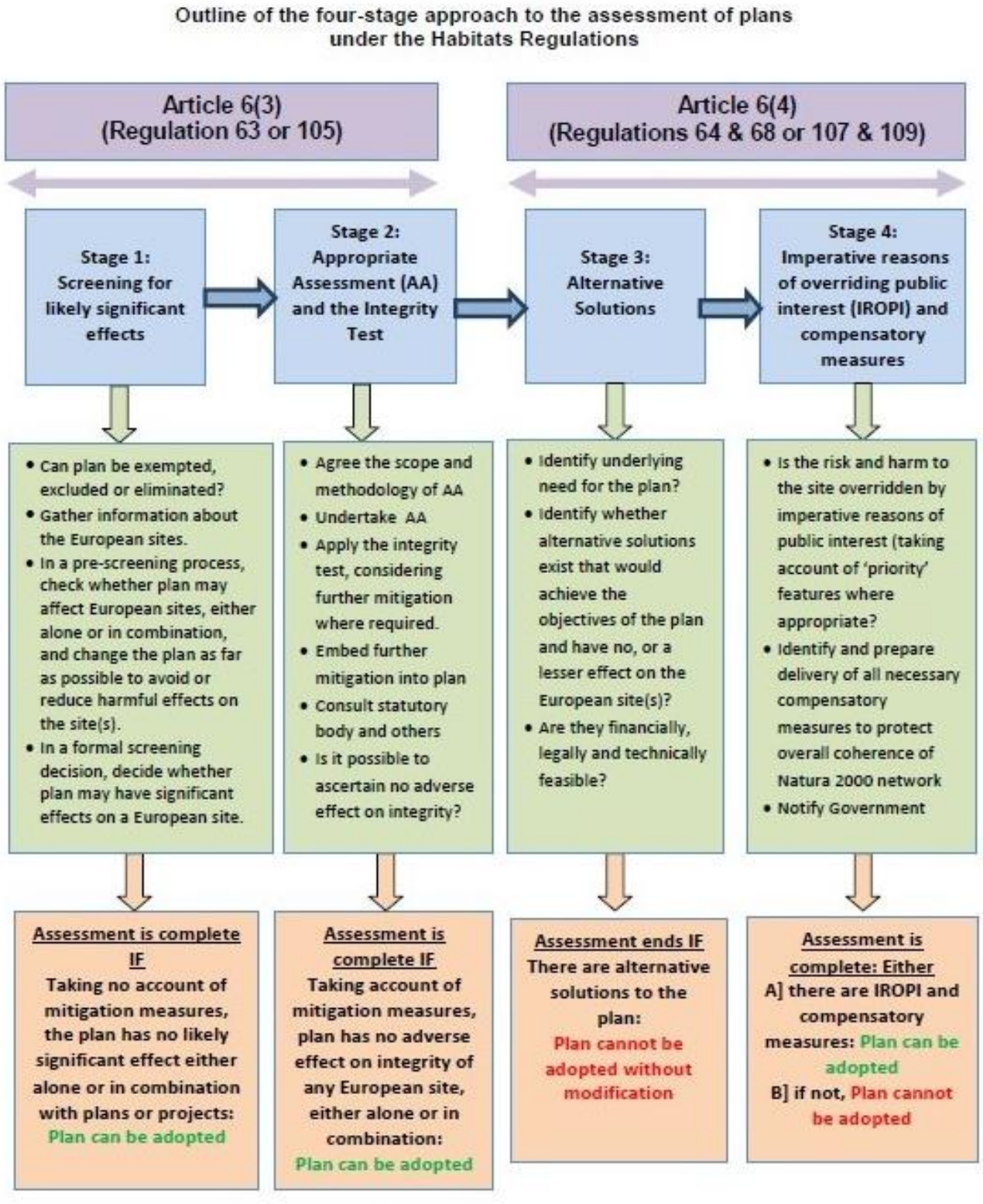


Figure 1: Outline of the assessment of plans under the Habitats Regulations. Though dated prior to the latest amendments to the Regulations, the same tests still apply and it still remains valid.

1.15 Throughout all stages, there is a continual consideration of the options available to avoid and mitigate any identified potential impacts. A competent authority may consider that there is a need to undertake further levels of evidence gathering and evaluation at the appropriate assessment stage in order to provide the necessary certainty. At this point the competent authority may identify the need to add to or modify a plan in order to adequately protect the European site, and these mitigation measures may be added through the imposition of particular restrictions and conditions.

1.16 For plans, the stages of HRA are often quite fluid, with the plan normally being prepared by the competent authority itself. This gives the competent authority the opportunity to repeatedly explore options to prevent impacts, refine the plan and rescreen it to demonstrate that all potential risks to European sites have been successfully dealt with.

1.17 When preparing a plan, a competent authority may therefore go through a continued assessment as the plan develops, enabling the assessment to inform the development of the plan. For example, a competent authority may choose to pursue an amended or different option where impacts can be avoided, rather than continue to assess an option that has the potential to significantly affect European site interest features.

1.18 After completing an assessment, a competent authority should only adopt a plan where it can be ascertained that there will not be an adverse effect on the integrity of the European site(s) in question. In order to reach this conclusion, the competent authority may have made changes to the plan, or modified the project with restrictions or conditions, in light of their Appropriate Assessment findings.

1.19 Where adverse effects cannot be ruled out, further exceptional tests are set out in Regulation 107. In exceptional cases, this allows a plan to be taken forward where there are no 'alternative solutions', where 'imperative reasons of overriding public interest' apply and where compensation can be delivered. It should be noted that meeting these tests is a rare last resort and ordinarily, competent authorities seek to ensure that a plan or project is fully mitigated for, or it does not proceed.

Definitions, references to case law and guidance

1.20 This HRA follows principles of case law, both UK and EU. It also refers as appropriate to the Habitats Regulations Assessment Handbook (Tyldesley

and Chapman, 2013), to which Footprint Ecology subscribes. We also follow relevant government guidance.

1.21 Drawing on the Handbook, other relevant guidance and case law, we clarify the following terms used in the flow chart (Figure 1).

1.22 In Stage 1, a **'likely significant effect'** following Waddenzee[4], is a '*possible significant effect; one whose occurrence cannot be excluded on the basis of objective information'*. It is a low threshold and simply means that there is a risk or doubt regarding such an effect. The screening stage is a preliminary examination, sometimes described as a coarse filter, or following Sweetman[5], as '*a trigger for the obligation to carry out an appropriate assessment'*. There should however be credible evidence to show that there is a real rather than a hypothetical risk of effects that could undermine a site's conservation objectives. This was amplified in the Bagmoor Wind[6] case where '*if the absence of risk… can only be demonstrated after a detailed investigation, or expert opinion,* [then] *the authority must move from preliminary examination to appropriate assessment'.*

1.23 Following the People Over Wind judgement[7], when making screening decisions for the purposes of deciding whether an appropriate assessment is required, competent authorities cannot take into account any measures intended to avoid or reduce harmful effects upon a European site.

1.24 Stage 2 involves the **appropriate assessment and integrity test**. Here a plan can only be adopted if the competent authority can demonstrate that it will not adversely affect the integrity of the European site. This is precautionary approach and means it is necessary to show the absence of harm.

1.25 Following Champion[8] **'appropriate'** is not a technical term but simply indicates that the assessment needs to be appropriate to the task in hand.

---

[4] Waddenzee: European Courts C-127/02 Waddenzee 7th September 2004, reference for a preliminary ruling from the Raad van State.
[5] Sweetman: European Court C – 258/11 Sweetman 11th April 2013, reference for a preliminary ruling from the Supreme Court of Ireland
[6] Bagmoor Wind: UK courts Bagmoor Wind v The Scottish Ministers, Court of Session [2012] CSIH 93
[7] *People Over Wind and Sweetman v Coillte Teoranta* (323-17) [2018] PTSR 1668
[8] *R (on the application of Champion v North Norfolk District Council)* [2015] 1 WLR 3170 at para 41

1.26 The **integrity** of a European site has been described as the 'coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified[9]. An alternative definition, after Sweetman[10], is 'the lasting preservation of the constitutive characteristics of the site'.

1.27 In terms of the burden of proof, the HRA of development plans was first made a requirement in the UK following a ruling by the European Court of Justice in EC v UK[11]. However, the judgement[12] recognised that any assessment had to reflect the actual stage in the strategic planning process and the level of evidence that might or might not be available. This was given expression in the High Court (Feeney)[13] which stated: "*Each … assessment … cannot do more than the level of detail of the strategy at that stage permits*".

1.28 The need to consider possible **in-combination** effects arises at stage 1 – the screening and also at stage 2 – the appropriate assessment and integrity test. The effects of the plan in-combination with other plans or projects are the cumulative effects which will or might arise from the addition of the effects of other relevant plans or projects alongside the plan under consideration. If during the stage 1 screening it is found the subject plan would have no likely effect alone but might have such an effect in-combination, then the appropriate assessment at stage 2 will proceed to consider cumulative effects. Where a plan is screened as having a likely significant effect alone, the appropriate assessment should initially concentrate on its effects alone.

Role of the competent authority

1.29 This HRA has been prepared to help BCP Council discharge its duties under the Habitats Regulations, it is BCP that is the competent authority, and it must decide whether to accept this report or otherwise. Further, it should be noted that this HRA has been prepared for the purposes of preparing and examining the Plan. Individual allocations will need to be reviewed when they become the subject of an individual planning application, to ensure that

[9] Para 20 of the ODPM Circ. 06/2005
[10] *Sweetman v An Bord Pleanála* (C–258-11) [2014] PTSR 1092 at paragraph 39
[11] Commission v UK (C-6/04) [2005] ECR 1-9017
[12] Commission of the European Communities v UK Opinion of Advocate General Kokott
[13] *Feeney v Oxford City Council* [2011] EWHC 2699 Admin at paragraph 92

if further assessment under the Habitats Regulations is necessary, it is undertaken in accordance with the requirements of appropriate assessment.

Planning Reform

1.30 The draft Planning and Infrastructure Bill[14] is proposed to speed up and streamline the delivery of new homes, with a focus on strategic mitigation to enable development. The Bill proposes that a delivery body (like Natural England) is responsible for the production of Environmental Delivery Plans (EDPs), determining standardised levels of environmental mitigation needed for certain types and scales of development in a specific area. Where an EDP exists, developers will have the option to pay into a new 'Nature Restoration Fund', which the delivery body will use to fund appropriate mitigations, including by pooling contributions from multiple developers. It is proposed that contributions to the Nature Restoration Fund will mean that HRAs will not need to assess the implications of a particular development in respect to the particular impact pathway the EDP is addressing. It is likely that EDPs will cover strategic issues such as nutrient neutrality, recreation or air quality.

1.31 Until such time as the Bill becomes law and further clarity is available on how EDPs might work and when the Nature Restoration Fund might be operational, it will be necessary to assume that BCP Council, as the competent authority, must assess all impact pathways. The Plan will need to be assessed in light of the legislation and legal requirements in place at the time, and as such it is necessary to ensure all impacts are identified in the early stages of the Plan and necessary mitigation identified and secured.

Other relevant HRAs

1.32 It is usually the case with neighbourhood plans that the HRA can defer to the strategic HRA work done to accompany the local plan. In this case, the adopted local plan is very dated and cannot be relied on to inform this HRA. More relevant is the HRA work undertaken to accompany the 2024 BCP local plan[15]. This provides a useful check and background to this HRA, however

[14] The bill is yet to receive Royal Assent, see https://bills.parliament.uk/bills/3946 for background and details of progress.
[15] Available in the examination library for the withdrawn local plan: https://www.bcpcouncil.gov.uk/planning-and-building-control/planning-policy/examination-library

given that the plan was withdrawn, we take the approach of ensuring this HRA report is complete, stands-alone and does not simply defer to the conclusions in that HRA.

2. European sites in and around Christchurch

2.1 In line with the HRA work undertaken for the now withdrawn BCP Local Plan, we have used a 20km boundary from the Christchurch boundary as an initial area of search (20km providing a reasonable area of search within which policies could reasonably be considered to generate measurable effects). Air quality impacts at plan level are typically considered to relate to a 10km distance (Chapman and Kite, 2021) while generic analysis of Footprint Ecology visitor data to countryside sites in the UK (Weitowitz et al., 2019) indicates that the majority of visitors originate within a 12.6km radius. The choice of 20km is therefore precautionary.

2.2 Sites that fall within this initial area of search are listed in Table 1 and shown in Map 1 (SACs), Map 2 (SPAs) and Map 3 (Ramsar). There are 22 European sites in total that are within the 20km radius, of which 7 are within or abut Christchurch. All 22 sites are also listed in Appendix 1, which gives the relevant qualifying features and other site background, including links to the conservation objectives for each site.

Table 1: European sites within 20km of the Christchurch Neighbourhood Plan area boundary. Those where no distance is given lie within or partly within the boundary. 20km reflects the distance we normally use to identify sites that might be relevant for the screening, recognising that many of these will then be eliminated from further consideration.

European site	Distance to Christchurch boundary (km)
SACs	
Dorset Heaths	-
Dorset Heaths (Purbeck & Wareham) & Studland Dunes	11.8
Isle of Portland to Studland Cliffs	14.3
Isle of Wight Downs	13.0
River Avon	-
Solent & Isle of Wight Lagoons	13.1
Solent Maritime	9.9
South Wight Maritime	11.1
St Albans Head to Durlston Head	19.4
Studland to Portland	12.7
The New Forest	3.8
SPAs	
Avon Valley	-
Dorset Heathlands	-

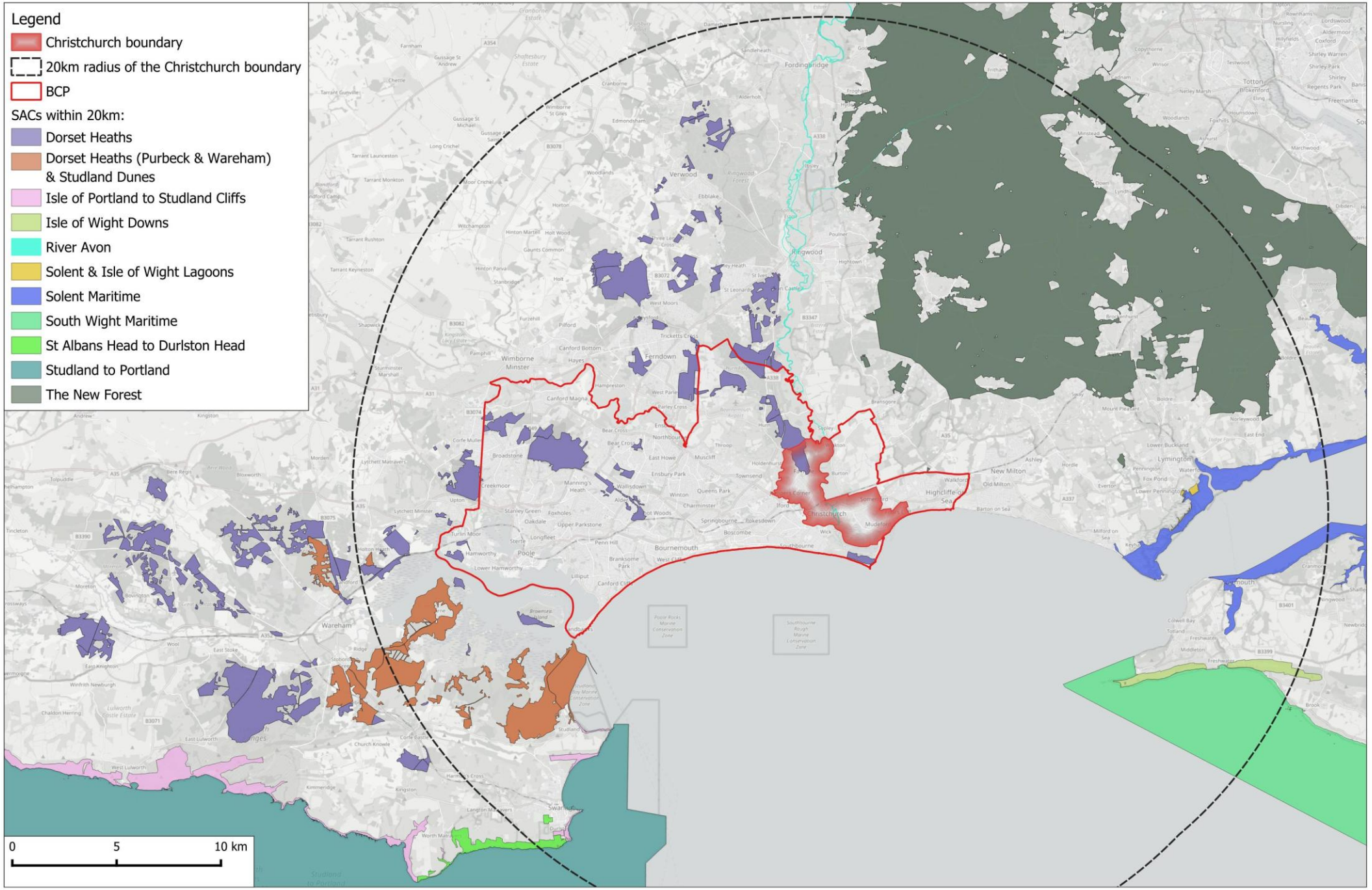
European site	Distance to Christchurch boundary (km)
Poole Harbour	9.8
Solent & Southampton Water	9.5
Solent & Dorset Coast	-
The New Forest	5.0
Ramsar	
Avon Valley	-
Dorset Heathlands	-
Poole Harbour	9.8
Solent & Southampton Water	9.5
The New Forest	5.0

Overlapping site boundaries

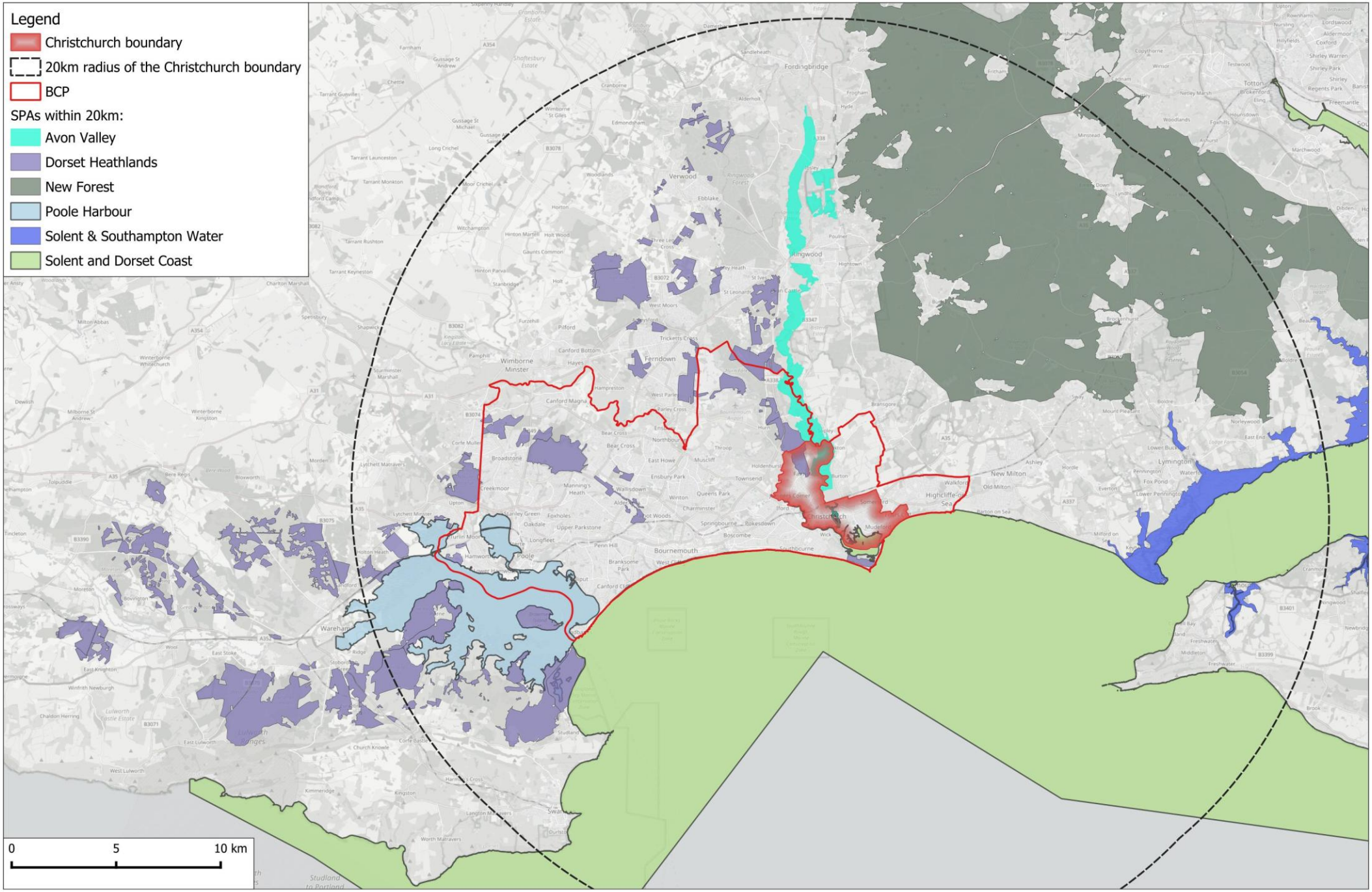
2.3 The Dorset Heaths comprise a series of different heathland patches, from just to the east of Dorchester to the Hampshire boundary. These cover some 40 different SSSIs and multiple European sites. Where relevant and for simplicity, we use 'Dorset Heaths SAC/SPA/Ramsar' as an umbrella term for the following European sites: Dorset Heaths SAC; Dorset Heathlands SPA; and Dorset Heathlands Ramsar, noting that the boundaries of these sites are not necessarily all contiguous.

2.4 Similarly, we refer to the New Forest SAC/SPA/Ramsar when referring to the New Forest sites combined. It should be noted that the SAC, SPA and Ramsar site boundaries are not the same, but largely cover the same area. One relevant exception is that the New Forest SAC includes Shirley common on the outskirts of Bransgore; this area is close to Christchurch and lies outside the New Forest SPA and Ramsar.

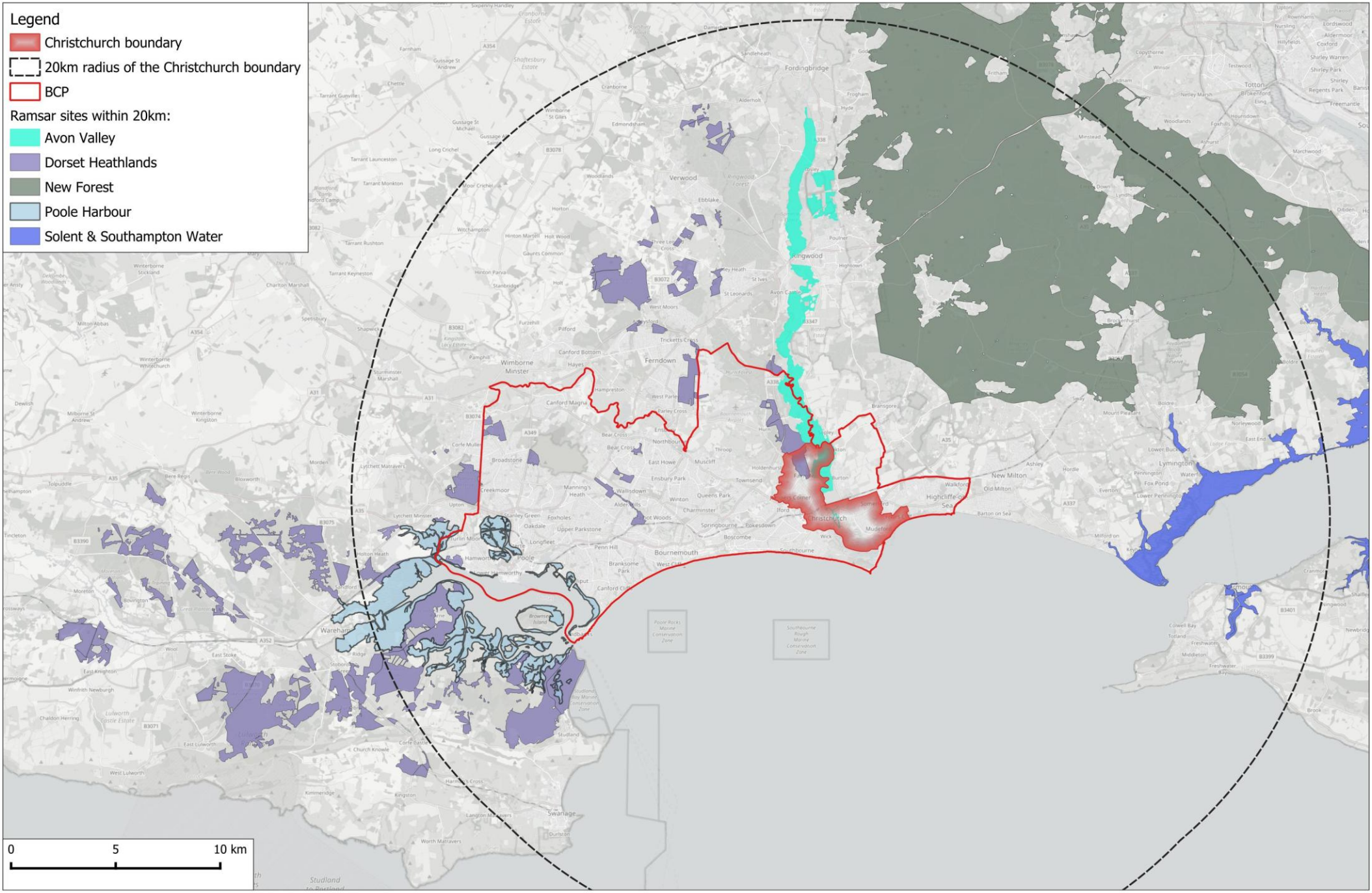
Map 1: SAC sites within 20km radius of Christchurch



Map 2: SPA sites within 20km radius of Christchurch



Map 3: Ramsar sites within 20km radius of Christchurch



Potential impact pathways

2.6 Drawing on the background information relating to European sites, previous HRA work for the withdrawn BCP Local Plan and HRA work for the New Forest National Park Local Plan review, we can identify the following broad potential impact pathways, i.e. ways in which elements of the Plan might conceivably impact on the relevant European sites and trigger likely significant effects:

- **Habitat loss and land-take,** i.e. the direct loss of land within European sites, e.g. from development;
- **General urban effects**, covering impacts associated with development in very close proximity to European sites, through for example light pollution, noise, domestic cats, spread of garden waste and invasive species etc. This pathway would only be relevant where European sites are within the Christchurch boundary. Also only relates to sites with existing boundaries with extensive urban fringe or qualfying features potentially vulnerable to cat predation (e.g. heathland birds, herptiles);
- **Mobile species and impacts to functionally-linked land**, i.e. impacts to supporting habitat (loss of land or change of use) or risks for species moving outside European site boundaries (e.g. where lighting or development hinders movement). Relevant species are potentially Nightjar, Great-crested Newt, migratory fish, waterbirds);
- **Recreation**, covering impacts relating to public access to sensitive areas, including disturbance, increased fire risk and contamination from dogs. Relevant where sites are accessible to the public and the accessible areas include habitats vulnerable to recreation/fire, such as heathland, chalk grassland, reedbeds, vegetated shingle, sand dunes or particular species (ground-nesting birds, colonial waterbirds, Dartford Warbler, wintering waterbirds etc.);
- **Water quality**, covering the impacts from increased nutrients and pollution and relevant for European sites with water-dependent qualifying features and a catchment within Christchurch;
- **Water quantity**, covering impacts relating to abstraction of water and a reduction in the amount of water available, relevant for European sites with water-dependent qualifying features;
- **Air quality**, covering the impacts of air pollution including those associated with increased traffic. Relevant to European sites with roads within 200m and qualifying features potentially vulnerable to changes in air quality.

2.7 These are simplified, umbrella terms to facilitate screening and simplify a range of complex issues. The European sites have different qualifying features and as such impacts are relevant for different sites. The local geography and distance from the Christchurch Neighbourhood Plan area boundary to the European sites will also determine which sites are vulnerable in which ways.

European sites and impact pathways

2.8 Potential impact pathways that are relevant to each of the European sites around Christchurch are summarised in Table 2. This table provides the context for the screening for likely significant effects and shows which sites could be relevant and the pathways that need to be the focus when screening the Plan.

2.9 It can be seen that all impact pathways are potentially relevant for at least one European site and that the following European sites are the only ones for which there could be any credible impact pathway (and will therefore form the focus for the screening):

- Dorset Heaths SAC/SPA/Ramsar;
- River Avon SAC;
- The New Forest SAC/SPA/Ramsar;
- Avon Valley SPA/Ramsar;
- Solent and Dorset Coast SPA.

2.10 The table also helps eliminate European sites that do not need further consideration as – due to their location, interest features or other characteristics there is no credible way they could be impacted by the Plan. The pale grey shading in the table indicates these sites are there are 12 European sites that need no further consideration within the HRA.

Table 2: Summary of potential impact pathways identified for each European site within 20km of Christchurch. Grey shading indicates sites where plan could pose no credible risk.

European sites	Distance (km) to Christchurch boundary	Habitat loss and Land-take	General urban effects	Mobile species and Functionally linked land	Recreation	Water quality	Water quantity	Air quality	Commentry/reasoning
SACs									
Dorset Heaths	0.0	✓	✓		✓	✓	✓	✓	Long standing concerns around urban effects and recreation pressure (with strategic mitigation approach established through the Dorset Heathlands Planning Framework). Species such as southern damselfly can be mobile however relatively small dispersal and Dorset sites are well away from the New Forest. SAC within the Christchurch Boundary and therefore risks in relation to run-off, water quality. Air quality also a concern with numerous roads within 200m of the heaths.
Dorset Heaths (Purbeck & Wareham) & Studland Dunes	12.3								Location in relation to Christchurch precludes all risks. Poole Harbour and need to cross conurbation means recreation not relevant. No connectivity in terms of water.
Isle of Portland to Studland Cliffs	14.3								Location in relation to Christchurch precludes all risks. Poole Harbour and need to cross conurbation means recreation not relevant.
Isle of Wight Downs	13.0								Site on Isle of Wight, separated by Solent, therefore no impact pathways relevant.

European sites	Distance (km) to Christchurch boundary	Habitat loss and Land-take	General urban effects	Mobile species and Functionally linked land	Recreation	Water quality	Water quantity	Air quality	Commentry/reasoning
River Avon	0.0		✓	✓	✓	✓	✓	✓	Mobile species interest are fish; recreation a concern in relation to wild swimming, kayaks etc; existing requirement for nutrient neutrality with new development. Urban effects possible as SAC within Christchurch.
Solent & Isle of Wight Lagoons	13.1								Pennington and Normandy Marsh have public access along sea wall, but no potential for recreation impacts to lagoons as these are reserves where access controlled. Air quality not a credible pathway as Normandy Lane to south of Lymington is the only road within 200m and this is beyond 200m from the lagoons. The road is very minor and traffic here would not be affected by development within Christchurch. No hydrological connections.
Solent Maritime	9.9								SAC qualifies for a range of coastal habitats including saltmarsh and lagoons but access to many areas difficult/restricted and distance from Christchurch Harbour precludes risks from recreation. Water quality not relevant as any nutrients would have to flow out of Christchurch Harbour and have over 10km of sea within which to mix and disperse – Natural England have advised that Nitrogen discharge through Christchurch Harbour can be considered insignificant. No other conceivable pathways relevant.

European sites	Distance (km) to Christchurch boundary	Habitat loss and Land-take	General urban effects	Mobile species and Functionally linked land	Recreation	Water quality	Water quantity	Air quality	Commentry/reasoning
South Wight Maritime	11.1								Marine SAC along the south side of the Isle of Wight and separated from Christchurch by the Solent. Distance and location preclude any risk.
St Albans Head to Durlston Head	19.4								Closest part of the SAC is Durlston and distance/travel time exclude recreation risks. Distance precludes all other risks.
Studland to Portland	12.7								Marine SAC that qualifies for reefs. Distance and location precludes risk.
The New Forest	3.8				✓			✓	Large SAC qualifying for wide range of features and lying in relative proximity to Christchurch. Mobile species (Great-crested Newt, Southern damselfly and stag beetle) potentially relevant as mobile species but contiguous nature of the SAC and scale means risks potentially low. No hydrological links with Christchurch.
SPAs									
Avon Valley	0.0				✓	✓	✓		Urban effects not relevant as Gadwall and Bewicks Swan are the only qualifying features and e.g. cat predation highly unlikely. No credible risks in relation to mobile species as neither species likely to be hindered in movement as a result of development in Christchurch. Air quality not relevant to either qualifying feature.

European sites	Distance (km) to Christchurch boundary	Habitat loss and Land-take	General urban effects	Mobile species and Functionally linked land	Recreation	Water quality	Water quantity	Air quality	Commentry/reasoning
Dorset Heathlands	0.0	✓	✓	✓	✓			✓	Long standing concerns around urban effects and recreation pressure (with strategic mitigation approach established through the Dorset Heathlands Planning Framework). Nightjar, Hen harrier, Merlin movement between New Forest and Dorset Heaths populations (mobile species). Air quality a recognised concern for the Dorset Heaths and could have implications for bird interest.
Poole Harbour	9.8								Distance and geography preclude risk. None of the Christchurch is within the catchment for Poole Harbour and Christchurch is well outside the zone of influence for recreation. There could be some movements of waterbirds between the Solent and the Harbour but no conceivable risks from development within Christchurch.
Solent & Southampton Water	9.5								SPA extends along coastline well to the east (from Hurst Spit). Recreation a clear risk, however Christchurch well outside the zone of influence (5.6km). No hydrological connectivity in terms of freshwater (see commentary under Solent Maritime SAC) or risks from air quality.
Solent and Dorset Coast	0.0				✓	✓			SPA covers open water areas used by foraging terns. Possibly a risk in relation to recreation (boats, kayaks and water-based

European sites	Distance (km) to Christchurch boundary	Habitat loss and Land-take	General urban effects	Mobile species and Functionally linked land	Recreation	Water quality	Water quantity	Air quality	Commentry/reasoning
									activity) as extends into Christchurch Harbour. Water quality also a risk (as per supplementary conservation advice).
The New Forest	5.0			✓	✓			✓	Large SPA. Nightjar, Hen harrier, Merlin movement between New Forest and Dorset Heaths populations (mobile species). Christchurch within the 13.8km zone of influence for recreation. Air quality relevant given proximity and road network.
Ramsar sites									
Avon Valley	0.0		✓		✓	✓	✓	✓	Ramsar includes floodplain habitats and wetland invertebrates and plants and abuts Christchurch boundary so a range of impact pathways potentially relevant.
Dorset Heathlands	0.0	✓	✓		✓	✓	✓	✓	Long standing concerns around urban effects and recreation pressure (with strategic mitigation approach established through the Dorset Heathlands Planning Framework). SAC within the Christchurch Boundary and therefore risks in relation to run-off, water quality. Air quality also a concern with numerous roads within 200m of the heaths.
Poole Harbour	9.8								Distance precludes risk. There could be some movements of waterbirds between the Solent and the Harbour but no conceivable risks from development within Christchurch.

European sites	Distance (km) to Christchurch boundary	Habitat loss and Land-take	General urban effects	Mobile species and Functionally linked land	Recreation	Water quality	Water quantity	Air quality	Commentry/reasoning
Solent & Southampton Water	9.5	✓	✓	✓	✓	✓		✓	Ramsar extends along coastline well to the east (from Hurst Spit). Recreation a clear risk, however Christchurch well outside the zone of influence (5.6km). No hydrological connectivity in terms of freshwater (see commentary under Solent Maritime SAC) or risks from air quality.
The New Forest	5.0				✓			✓	Large site listed for wide range of features. No hydrological links with Christchurch.

3. Screening and the potential for Likely Significant Effects

3.1 The screening is stage one of the four-stage process and is the point at which the plan is checked for likely significant effects. With a neighbourhood plan the screening is usually a policy-by-policy check to ensure all elements of the plan are considered in the context of the Habitat Regulations. Any areas of concern will then be examined in more detail at the appropriate assessment stage (stage two) of the Habitat Regulations process. In the previous section we have identified the relevant European sites and the potential impact pathways that be relevant to those sites – this facilitates the screening by setting out the different things that need to be checked.

3.2 The screening has been undertaken using the draft policies shared in August 2025. The screening needs to be reviewed and updated with any further versions or changes to the plan. The complete screening of all policies and all parts of the plan is set out in Table 3.

3.3 Map 4 shows the potential development that would come forward as a result of the Plan. Sites that are shown in dark brown are ones carried forward from the 2019 local plan.

3.4 In undertaking the screening we have drawn upon the following general geographic criteria, based on existing evidence or mitigation strategies:

- Likely significant effects from recreation for the New Forest SAC/SPA/Ramsar triggered for any residential or tourist development anywhere within the Christchurch boundary (as the entire area is within the 13.8km zone of influence);
- Likely significant effects for recreation for the Dorset Heaths SAC/SPA/Ramsar for any residential or tourist development anywhere within the Christchurch boundary (as the entire area is within the 5m zone of influence)[16];

[16] See Dorset Heaths planning framework for background and context: https://www.dorsetcouncil.gov.uk/w/dorset-heathlands-planning-framework

- Likely significant effects for water quality for the River Avon SAC triggered if proposal relates to overnight accommodation within the relevant catchment (see Map 5)[17].
- Likely significant effects for air quality only possible where roads are within 10km and where there are roads within 200m of the European site (see Map 6, which for context shows all roads within 200m of a European site).

[17] For further information on the catchment maps see the Natural England website: https://publications.naturalengland.org.uk/publication/4982167238344704 and https://publications.naturalengland.org.uk/publication/6522945605468160

Table 3: Screening for likely significant effects ('LSE'). Green shading indicates section headings and themes (structure for the Plan). Grey shading indicates policy or other content screened out. Pale red shading (bold text) indicates those policies screened in for further assessment.

	Policy	Description	Screening outcome	Relevant European Sites	Notes
	Overview	Summary text.	No LSE. Summary/administrative text.		
1	Introduction	Introductory text.	No LSE. Introductory text.		
	Vision, themes and objectives	Sets out overarching vision and objectives for the plan.	No LSE. General aspirations and strategic overview.		
2	About the neighbourhood plan area	Context and background information	No LSE. Context and background.		
3	Design and heritage	Theme heading and associated text	No LSE. Context and background.		
	Policy 1: Principles for good design	Policy sets a range of design criteria.	No LSE. Criteria based policy with no possible risk to a European site.		
	Policy 2: Shopfront design	Provides guidance for shopfronts in relation to windows, doorways, fascia and lettering, signage etc.	No LSE. Criteria based policy with no possible risk to a European site.		
	Policy 3: Locally important historic buildings	Policy requires development to conserve and where possible enhance local important	No LSE. Policy with no conceivable risk to a European site.		

	Policy	Description	Screening outcome	Relevant European Sites	Notes
		historic buildings and structures.			
	Policy 4: Locally important views	Policy ensures views of The Priory are retained and protected and ensures the generally verdant character of the town, when viewed from the water/river is retained.	No LSE. Policy with no conceivable risk to a European site.		
4	Green and open spaces	Theme heading and associated text.	No LSE. Context and background.		Provides cross reference to SANGs and the Dorset Heathlands Planning Framework.
	Policy 5: Locally important green spaces	Policy protects green spaces from inappropriate development.	No LSE. Policy with no conceivable risk to a European site.		Retention and enhancement of local greenspaces likely to contribute to reducing recreation pressure on European sites, however policy does not provide mitigation and therefore does not need to be considered at appropriate assessment (in accordance with *People vs wind*).
	Policy 6: Opportunities for wildlife	Policy encourages retention of trees and improvements to biodiversity interest. Provides a steer for biodiversity net gain to focus on opportunities to link and strengthen the network of existing and proposed green corridors.	No LSE. Policy with no conceivable risk to a European site.		Environmentally positive policy likely to have general benefits for wildlife.

	Policy	Description	Screening outcome	Relevant European Sites	Notes
	Policy 7: Protected habitats sites	**Policy providing protection to European sites. Policy sets a presumption of no residential development within 400m of the Dorset Heaths SAC/SPA/Ramsar and requires mitigation for all residential development in relation to recreation/urban effects and the Dorset Heaths SAC/SPA/Ramsar, recreation and the New Forest SAC/SPA/Ramsar and water quality (River Avon SAC).**	**LSE. Bespoke policy intended to avoid or reduce harmful effects on a European site.**	**LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (urban effects, recreation, air quality); New Forest SAC/SPA/Ramsar (recreation), River Avon (water quality)**	**In accordance with *People vs Wind*, policy screened in for consideration at appropriate assessment as it sets out need for mitigation and relevant areas.**
5	Getting about	Theme heading and associated text	No LSE. Context and background.		
	Policy 8: Opportunities for walking and cycling	Policy requiring development to enable people to get about on foot, mobility scooter/wheelchair and by cycle. Sets a need for developers to contribute towards the improvement of wider pedestrian and cycle network.	No LSE. Policy with no conceivable risk to a European site.		Policy does not identify specific routes or promote access to particular locations in any way. Focus is on access routes to schools, shops, employment areas facilities etc rather than promoting routes to European sites.

	Policy	Description	Screening outcome	Relevant European Sites	Notes
	Policy 9: Design and layout of streets and spaces	Policy sets a range of design criteria to encourage walking and cycling.	No LSE. Policy with no conceivable risk to a European site.		Policy does not identify specific routes or promote access to particular locations in any way. Policy sets general criteria relating to safety, crossing points, layout etc.
	Policy 10: Managing parking requirements	Policy cross references to the BCP Council Parking Standards SPD and ensures no reductions in key public car parks to beaches.	No LSE. Policy with no conceivable risk to a European site.		
6	Town centre, shops and services	Theme heading and associated text.	No LSE. Context and background.		
	Policy 11: The town centre strategy	Policy relating to town centre area, focussed around preserving or enhancing heritage, maintaining suitable uses that reinforce vibrancy and identity, promotes pedestrian and cycling, reduces traffic volumes and speeds and sets design criteria for pavements. Also includes retaining a buffer to allow access to waterfronts.	No LSE. Policy with no conceivable risk to a European site.		
	Policy 12: Town centre car park capacity	Policy relating to parking needs, resisting loss of parking spaces and supporting	No LSE. Policy with no conceivable risk to a European site.		

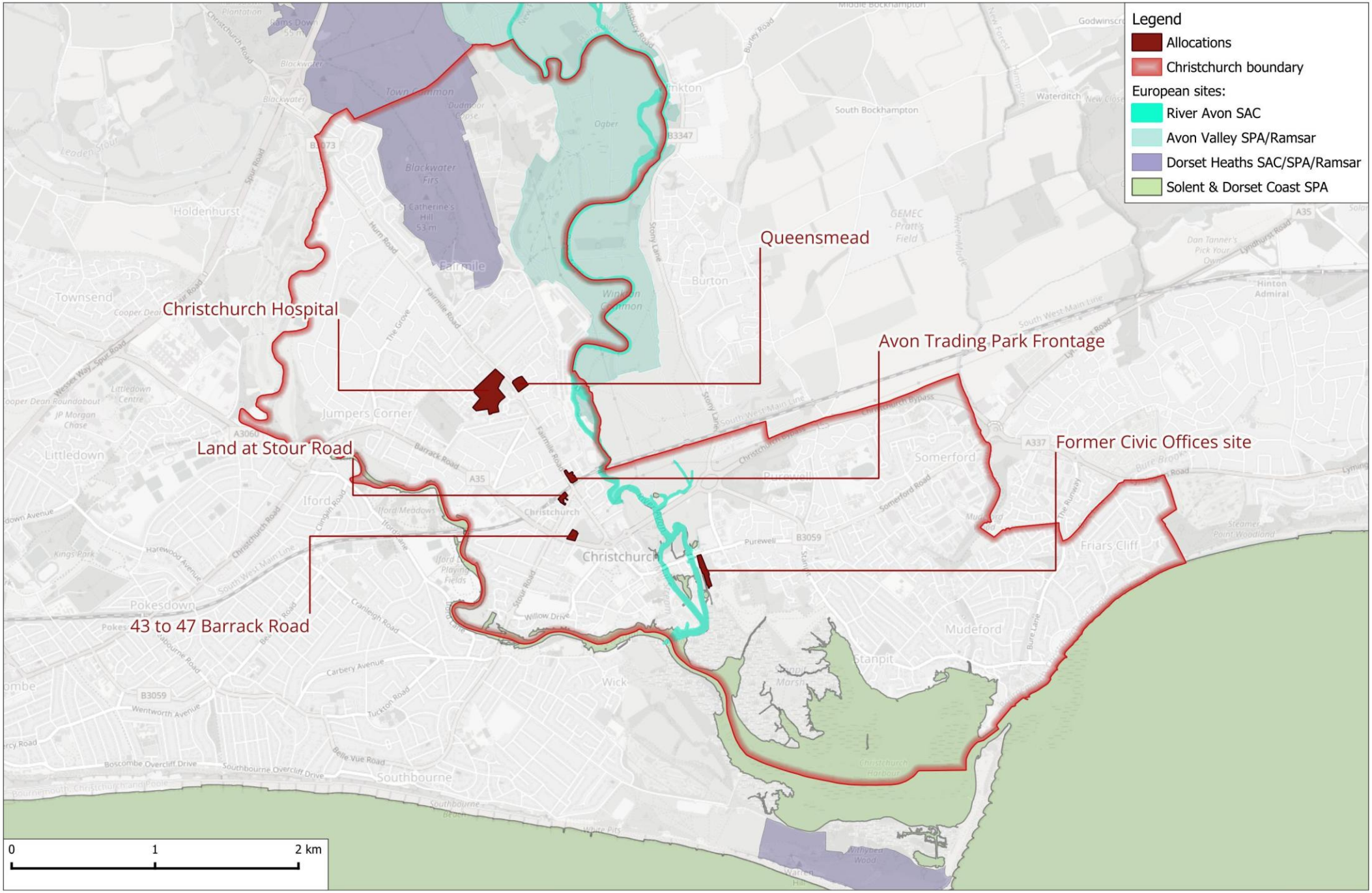
	Policy	Description	Screening outcome	Relevant European Sites	Notes
		temporary parking at periods of high demand.			
7	Place-making	Theme heading and associated text.	No LSE. Context and background.		
	Policy 13: Meeting local housing and employment needs	Policy expecting housing to make provision for access to open space and green infrastructure and incorporating employment space.	No LSE. General policy setting criteria for setting suitability of proposals.		Policy cross references Policy 7 and need for green space as mitigation, but this policy in itself does not deliver that mitigation.
	Policy 14: Land at Stour Road	**Allocation for residential development for around 20 homes.**	**LSE. Policy with potential risks to a European site.**	**LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (recreation, air quality), River Avon SAC (water quality), Solent and Dorset Coast SPA (water quality), the New Forest SAC/SPA/Ramsar (recreation, air quality).**	**Site boundary overlaps catchment for River Avon SAC and nutrient neutrality, therefore screened in for water quality and the River Avon SAC. Site is around 265m from the River Avon and separated by multiple buildings, gardens and a road, as such direct run off unlikely. Site around 1,500m from nearest part of the Dorset Heaths SAC/SPA/Ramsar at St. Catherine's Hill.**
	Policy 15: Avon trading frontage	**Allocation for residential development for around 20 homes and may include some compatible employment/community uses.**	**LSE. Policy with potential risks to a European site.**	**LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (recreation, air quality), River Avon SAC (water quality), Solent and Dorset Coast SPA (water quality),**	**Site boundary within catchment for River Avon SAC and nutrient neutrality, therefore screened in for water quality and the River Avon SAC. Site is around 161m from the River Avon and separated by multiple buildings, gardens and a road, as such direct run off unlikely. Site**

	Policy	Description	Screening outcome	Relevant European Sites	Notes
				the New Forest SAC/SPA/Ramsar (recreation, air quality).	around 1,380m from nearest part of the Dorset Heaths SAC/SPA/Ramsar at St. Catherine's Hill.
	Policy 16: Numbers 43 to 47 Barrack Road	Allocation for residential development and may include compatible town centre uses.	LSE. Policy with potential risks to a European site.	LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (recreation, air quality), the New Forest SAC/SPA/Ramsar (recreation, air quality), Solent & Dorset Coast SPA (water quality)	Construction has commenced on 130 dwellings, 39 units of age-restricted sheltered accommodation and community space. 0.3ha remains and relates to two sub-divided plots. Site is outside catchment for River Avon and nutrient neutrality, however water quality issues still relevant with respect to Solent and Dorset Coast SPA. Relevant plot is around 190m from River Avon SAC and separated by existing buildings and main road so no risks of urban effects. Site around 1,760m from the Dorset Heaths SAC/SPA/Ramsar.
	Policy 17: Former civic offices site and adjoining car parks	Policy supporting re-use and potential re-development of former civic offices site	LSE. Policy with potential risks to a European site.	LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (recreation, air quality), the New Forest SAC/SPA/Ramsar (recreation, air quality), Solent & Dorset Coast SPA (recreation and water quality), River Avon SAC (water quality).	Construction has commenced on 130 dwellings, 39 units of age-restricted sheltered accommodation and community space. 0.3ha remains and relates to two sub-divided plots. Site is outside catchment for River Avon and nutrient neutrality. Site is in close proximity (11m at closest) to the River Avon SAC so risks with run-off to water quality (note site is outside catchment for nutrient neutrality). Run-off

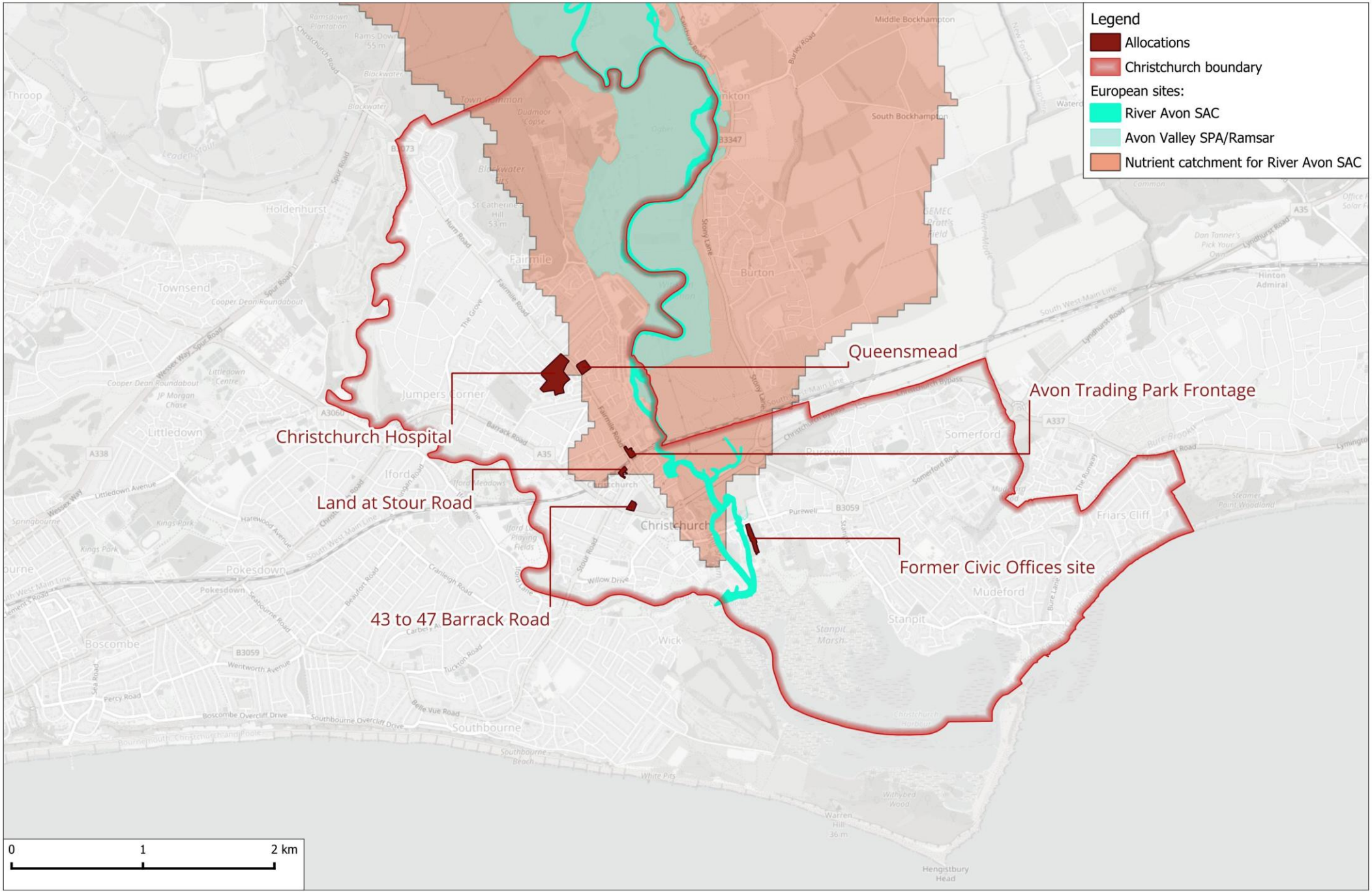
	Policy	Description	Screening outcome	Relevant European Sites	Notes
					considered under water quality pathway and urban effects can otherwise be ruled out for the River Avon SAC and Solent & Dorset Coast SPA given site is already developed. Solent & Dorset Coast SPA extends to adjacent marina and waterbodies within 10m of site boundary. Site is around 1,600m from Dorset Heaths SAC/SPA/Ramsar (Hengistbury Head).
	Policy 18: Queensmead, Fairmile Road	Allocation for education and/or residential development.	LSE. Policy with potential risks to a European site.	LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (recreation, air quality), River Avon SAC (water quality), Solent and Dorset Coast SPA (water quality), the New Forest SAC/SPA/Ramsar (recreation, air quality).	Site estimated to be able to deliver around 20 homes, or 30 extra care bed spaces. It also has the potential to be used as a school. Site boundary within catchment for River Avon SAC and nutrient neutrality, therefore screened in for water quality and the River Avon SAC. Site is around 300m from the River Avon and separated by multiple buildings, and green space, as such direct run off unlikely. Site around 670m from nearest part of the Dorset Heaths SAC/SPA/Ramsar at St. Catherine's Hill.
	Policy 19: Christchurch Hospital	Further development of land at hospital site supported for further expansion and improvement of healthcare uses. Potential for some residential use.	LSE. Policy with potential risks to a European site.	LSE in-combination for: Dorset Heaths SAC/SPA/Ramsar (recreation, air quality), River Avon SAC (water quality), Solent and Dorset Coast SPA (water quality),	Site boundary overlaps catchment for River Avon SAC and nutrient neutrality, therefore screened in for water quality and the River Avon SAC. Site is around 460m from the River Avon and separated by multiple buildings, and green space, as

	Policy	Description	Screening outcome	Relevant European Sites	Notes
				the New Forest SAC/SPA/Ramsar (recreation, air quality).	**such direct run off unlikely. Site around 580m from nearest part of the Dorset Heaths SAC/SPA/Ramsar at St. Catherine's Hill.**
	Appendix 1 – Supporting documents/information	Links to background material	No LSE. Administrative text/background.		
	Appendix 2 – Character area analysis and design codes	Further background and supporting information	No LSE. Administrative text/background.		
	Appendix 3 – Design prompts	Further background and supporting information	No LSE. Administrative text/background.		
	Appendix 4 – Shop front assessment – Character areas	Further background and supporting information	No LSE. Administrative text/background.		
	Appendix 5 – Locally important historic buildings	Further background and supporting information	No LSE. Administrative text/background.		
	Appendix 6 – Important views assessment	Further background and supporting information	No LSE. Administrative text/background.		
	Appendix 7 – Green spaces assessment	Further background and supporting information	No LSE. Administrative text/background.		Lists local greenspaces, some of which are SANG.

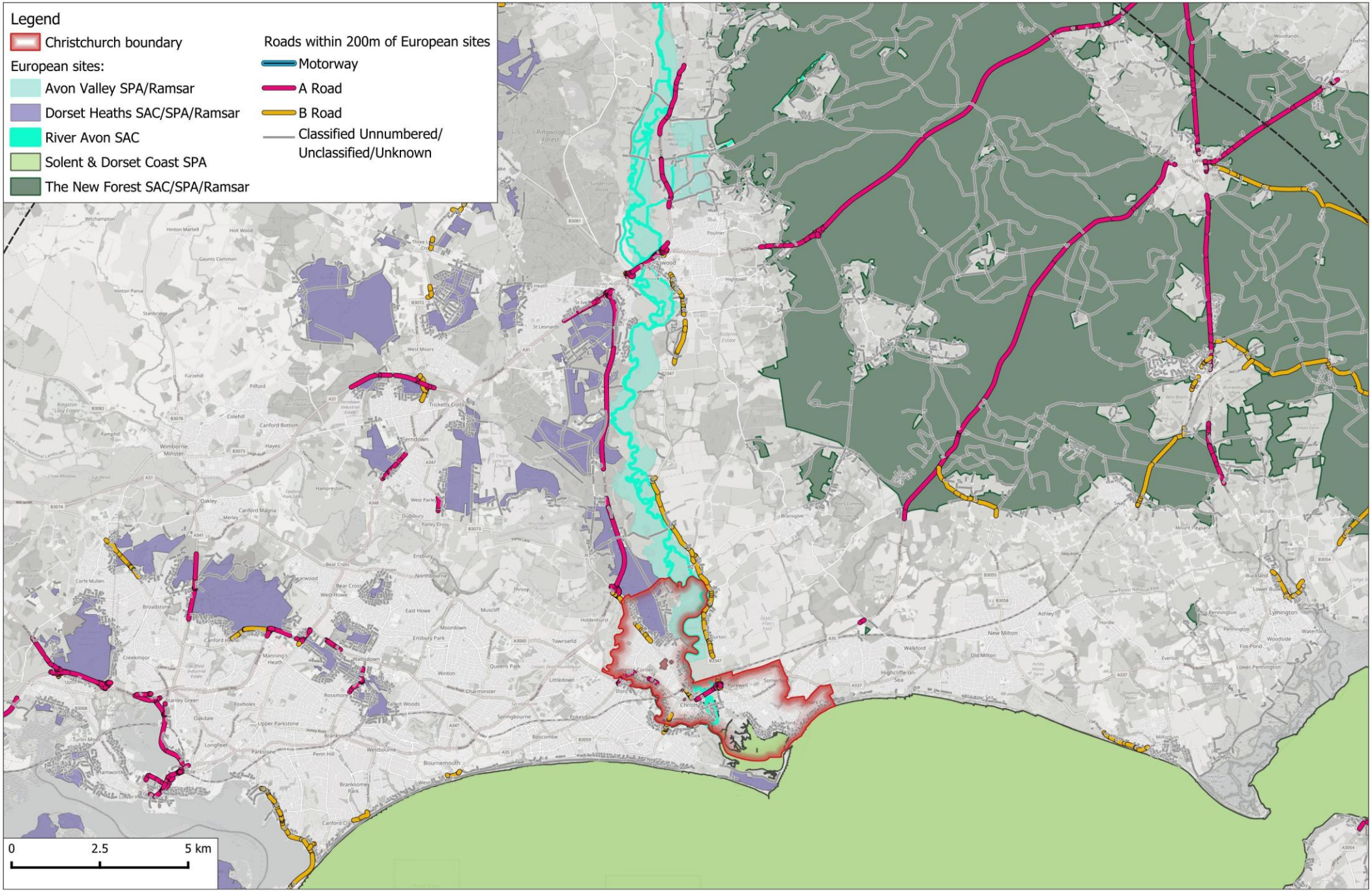
Map 4 Allocations



Map 5 River Avon catchment and allocations



Map 6 Roads within 200m of European sites



Screening findings

3.5 Likely significant effects were identified for one or more European sites for the following policies, alone or in-combination:

- Policy 14 Land at Stour Road
- Policy 15 Avon trading frontage
- Policy 16 Numbers 43 to 47 Barrack Road
- Policy 17 Former civic offices site and adjoining car parks
- Policy 18 Queensmead, Fairmile Road
- Policy 19 Christchurch Hospital

3.6 In addition, Policy 7 is a bespoke policy intended to avoid or reduce harmful effects on a European site and sets out mitigation measures that need to be considered at appropriate assessment.

3.7 Findings for each impact pathway are summarised below.

Habitat loss and land-take

3.8 No allocations or elements of the Plan result in any loss of habitat or land-take from European sites and this pathway does not need to be considered at appropriate assessment.

General urban effects

3.9 Urban effects for the Dorset Heaths need to be considered at appropriate assessment as Policy 7 sets a policy requirement to avoid development within 400m of the heaths. It should however be noted that no allocations fall within the 400m area. The 400m zone provides protection for both urban effects and recreation, and urban effects for the Dorset Heaths SAC/SPA/Ramsar are therefore covered at appropriate assessment under the recreation heading.

3.10 Likely significant effects were ruled out for all other European sites. It should be noted that Policy 17 relates to a site in very close proximity to both the River Avon SAC and the Solent and Dorset Coast SPA. Urban effects in this case can be ruled out given the already developed nature of the riverside area. Risks from run-off are covered under the water quality pathway.

Mobile species and functionally linked land

3.11 No likely significant effects were identified with respect to mobile species and functionally linked land and this pathway does not need to be considered at appropriate assessment.

Recreation

3.12 The whole of Christchurch is within the 13.8km zone of influence for the New Forest SAC/SPA/Ramsar and also the Dorset Heaths SAC/SPA/Ramsar. As such likely significant effects in-combination were triggered for all allocations. Policy 7, sets out the requirement for mitigation and relevant mitigation approaches, which need to be considered at appropriate assessment.

3.13 Policy 17 was screened in alone for recreation and the Solent and Dorset Coast SPA as the allocation is within very close proximity of the SPA and there is a marina and boat access to the water. Given the narrow channels and proximity of development recreation and other disturbance may pose a risk for foraging terns.

3.14 No likely significant effects were identified with respect to recreation and the River Avon SAC or Avon Valley SPA/Ramsar as allocations are mostly well away from the river and any access points, or the gravel pits associated with the SPA/Ramsar. In the case of Policy 17 it is likely that any access will be focussed towards the harbour and open water rather than heading upriver.

Water quality

3.15 A number of allocations were screened in for water quality, in-combination, as they are within (or partly within) the nutrient catchment of the River Avon SAC. Relevant allocations were: Policies 14, 15, 18 and 19.

3.16 Due to the proximity of the allocation to the River Avon SAC, likely significant effects were triggered alone for Policy 17, as surface water run-off during construction or once the development has been built poses a potential risk.

3.17 For all allocations, water quality risks extend to the Solent and Dorset Coast SPA, on a precautionary basis. The SPA includes the Stour as far as Iford Bridge and Christchurch Harbour, and therefore all allocations could be potentially relevant.

Water quantity

3.18 No likely significant effects were identified with respect to water quantity. There are no proposals in the plan that will directly affect the availability of water in sites with water dependent qualifying features – such as the River Avon SAC. This conclusion follows that of the HRA for the withdrawn BCP Local Plan.

3.19 The issues in terms of abstraction are strategic in nature and relate to the overall levels of growth and whether these can be supported without harm to European sites (including any potential new infrastructure that might be required).

3.20 It should be noted that it is the role of the Environment Agency to make sure that abstraction is sustainable and does not damage the environment. Water abstraction is managed through a licensing system originally introduced by the Water Resources Act 1963. The Environment Agency oversees the publication of River Basin Management Plans (RBMPs). These set the legally binding locally specific environmental objectives that underpin water regulation.

3.21 The most recent RBMPs were updated in 2022, with a plan for the South West[18] (which includes the catchment of the River Avon)[19]. The plan commits the Environment Agency to assess all licence applications and only issue licences that adequately protect and improve the environment; where necessary each should be subject to an individual HRA. In addition, for existing licences, the Agency will prioritise actions to protect and improve European sites and address the most seriously damaging abstractions during this plan period. The RBMPs was subject to HRA[20] which did not identify any likely significant effects on any European sites, alone or in combination with other plans or projects.

3.22 The Water Act 2003 introduced a legal requirement into the Water Industry Act 1991 for water companies to prepare, publish and maintain Water Resources Management Plans (WRMPs). These take place on a five-year cycle and set out how public water supply will be maintained over a minimum of

[18] https://www.gov.uk/guidance/south-west-river-basin-district-river-basin-management-plan-updated-2022

[19] https://www.gov.uk/guidance/south-east-river-basin-district-river-basin-management-plan-updated-2022

[20] https://assets.publishing.service.gov.uk/media/635246fae90e07768c1a73a2/South_west_river_basin_management_plan_2022_HRA.pdf

25 years in a way that is economically, socially and environmentally sustainable. South West Water cover the Bournemouth Water Resource Zone, which includes Christchurch. The most recent WRMP (dated 2024) was subject to HRA[21], which concluded that adverse effects can be avoided or fully mitigated for nearly all the options included in the WRMP and all European sites. The HRA did not, however, cover one of the options included in the Plan (which is unlikely to be relevant to Christchurch) and highlights that further assessment work will be required.

3.23 According to government guidance[22], BCP Council can defer to the HRA for the relevant WRMP and rely on its conclusions if there is no information or evidence that may lead to a different conclusion, if the previous assessment is relevant, thorough and correct, the conclusions are rigorous and there is no new case law that might be relevant.

Air quality

3.24 All allocations were screened in for air quality risks, in-combination and the Dorset Heaths SAC/SPA/Ramsar and the New Forest SAC/SPA/Ramsar. The main routes from the north heading towards Christchurch all pass within 200m of these European sites. Given the scale of growth set out in the Plan and the development locations, no likely significant effects were identified from air quality and the River Avon SAC. The A31 just to the west of Ringwood crosses the river, however this crossing point is well over 10km from any of the allocations in the Plan. The only other main road crossing is the Christchurch by-pass, at Millhams. Here there is a very short section of the road within 200m of the SAC, the road section is well above the river and there is ample tree cover in the vicinity of the road. Furthermore, this point is close to the very lowest reaches of the SAC. The HRA for the withdrawn BCP local plan did not identify likely significant effects for air quality for the River Avon SAC.

Screening summary

[21] https://www.bournemouthwater.co.uk/siteassets/documents/about-us/wrmp/sww-dwrmp24-appendix-7-sea-report-dec23-annex-h-hra.pdf
[22] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site#make-decision-making-quicker

3.25 The following impact pathways and European sites have been screened in for likely significant effects and need to be considered at appropriate assessment:

- Recreation (including urban effects): likely significant effects in-combination for all allocations with respect to the Dorset Heaths SAC/SPA/Ramsar.
- Recreation: likely significant effects in-combination for all allocations with respect to the the New Forest SAC/SPA/Ramsar;
- Recreation/disturbance: likely significant effects alone for the Solent and Dorset Coast SPA; policy 17.
- Water quality: likely significant effects in-combination for nutrient-neutrality impacts and the River Avon SAC; policies 14, 15, 18 and 19.
- Water quality: likely significant effects in-combination for nutrient-enrichment impacts and the Solent & Dorset Coast SPA; (all allocations).
- Water quality: likely significant effects alone for water quality and the River Avon SAC and Solent & Dorset Coast SPA in terms of run-off and surface water contamination for Policy 17.
- Air quality: likely significant effects in-combination for all allocations with respect to the Dorset Heaths SAC/SPA/Ramsar and New Forest SAC/SPA/Ramsar.

3.26 These effects have been identified in the absence of mitigation, in accordance with *People vs Wind.* Policy 7 is a bespoke policy intended to avoid or reduce harmful effects on a European site and sets out mitigation measures in relation to recreation, nutrient-neutrality and air quality that need to be considered as part of the appropriate assessment.

3.27 The above bulleted impact pathways match those taken to appropriate assessment in the HRA for the withdrawn BCP local plan. While we have reached the same conclusions in relation to the screening, we have checked all relevant pathways and undertaken a complete screening to ensure a complete and accurate record, given that plan has been withdrawn.

4. Appropriate assessment: Recreation (including urban effects) and the Dorset Heaths SAC/SPA/Ramsar

Policies identified in the screening

4.1 All allocations were screened in, in-combination, for recreation impacts in relation to the Dorset Heaths SAC/SPA/Ramsar. It should be noted here that we use the term Dorset Heaths SAC/SPA/Ramsar to refer to all the various European site designations that relate to the Dorset Heaths. The Dorset Heaths (Purbeck & Wareham) & Studland Dunes SAC was however screened out for all likely significant effects and is not considered further.

4.2 Mitigation in relation to recreation (and urban effects) is set out in Policy 7, which sets a presumption against development within 400m of the Dorset Heaths SAC/SPA/Ramsar and sets the need for contributions, and conformity with, the existing strategic mitigation schemes.

Overview of impact

4.3 New housing growth has the potential to result in more people visiting the countryside. This is generally positive as it provides wider benefits to society that include benefits to mental/physical health (Bragg and Atkins, 2016; Kondo et al., 2020; Lee and Maheswaran, 2011) and economic benefits (Bateman et al., 2014; Dasgupta, 2021; Day, 2020). Access to greenspaces can also enforce pro-environmental behaviours and instil a greater respect for the world around us (Richardson et al., 2016).

4.4 Recreation can nonetheless result in a number of impacts to the nature conservation interest of sites, particularly where there are high levels of use or where sensitive features occur. These impacts include damage from trampling and erosion, contamination (e.g. dog fouling), increased fire risk and disturbance. The impacts are summarised in a number of general reviews (Buckley, 2004; Liddle, 1997; Liley et al., 2019, 2010; Lowen et al., 2008; Marzano and Dandy, 2012; Ryan, 2012).

Urban effects and recreation impacts

Urban effects

4.5 Urban effects relate to issues where development is close to the European site boundary and is an umbrella term relating to impacts such as light, noise, cat predation, fly tipping, spread of invasive species (e.g. from gardens and garden waste) and vandalism. Most heathland sites have a legal right of public access and the heaths draw visitors for a range of activities. Recreation use is associated with impacts such as disturbance, trampling and contamination. Heaths are also vulnerable to fires, which can be triggered by recreation use (barbeques etc.), as well as arson and from adjacent land (e.g. gardens).

4.6 The general (global) impacts of development on wildlife sites are well documented (e.g. Mcdonald, Kareiva & Forman 2008; Mcdonald et al. 2009). The impacts of urban development on heathlands in the UK have been the subject of a range of studies and have been reviewed by Haskins (2000) and Underhill-Day (2005). Studies using data from multiple heathland sites have shown reduced densities of nightjars (Liley & Clarke 2003; Liley et al. 2006) and woodlarks (Mallord 2005) on sites with higher levels of surrounding urban development, in other words, heaths with more houses around them support fewer birds. Studies of fire incidence have shown that heathland sites with high levels of housing within 500m of the site boundary have a higher fire incidence (Kirby and Tantram, 1999). These studies provide strong evidence that surrounding urban development has a negative effect on the European site interest.

4.7 Where housing is directly adjacent to sites, access can occur directly from gardens and informal access points. Use will spill over from adjacent gardens and adjacent green space next to urban areas is often subject to a range of activities that are not necessarily compatible with nature conservation. Fly-tipping and dumping of garden waste can be more common. As such, managing and looking after such sites can be more challenging.

4.8 One of the other key concerns relating to urban effects is the loss of connectivity between heaths where they are fragmented and surrounded by housing. The issue is relevant for some of the Annex I bird species for which the Dorset Heaths SPA is classified.

4.9 Nightjars are the main species of concern. Studies of Nightjar in the Purbeck area have shown that birds will fly a considerable distance away from the breeding sites to feed at night (Alexander & Cresswell 1990; Cresswell 1996). These studies radio-tracked birds and showed that they were leaving forest clearings (most of the tracking was conducted in conifer plantations) to feed

in deciduous woodland, orchards, village gardens and they also used wetland sites such as streams, small ponds and water meadows. Cresswell (1996) also noted that radio-tracking from an open heathland site (Hartland Moor) found birds were using nearby saltmarsh.

4.10 Nightjar feed on insects and predominantly catch them in flight, either in sustained flight or 'fly-catching' from a perch or the ground (see Cresswell 1996 for details). Cresswell (1996) argues that habitats used on foraging trips - deciduous woodland and wet grassland in particular - may be of considerable importance to Nightjar: "when it comes to Nightjar conservation, we believe that there may be a need to consider both breeding and feeding habitats".

4.11 Significant urban growth around heaths may therefore impact on Nightjar. The concerns would relate to:

- The direct loss of foraging habitat that is functionally linked to the SPA;
- Flight paths and access to foraging habitat being blocked or restricted by the presence of built development.

Recreation

4.12 For both nightjar and woodlark studies have shown recreation use affects the distribution of birds within sites, such that busy areas are avoided (Liley et al. 2006; Mallord et al. 2007; Lowe, Rogers & Durrant 2014). For Dartford warblers, breeding productivity is lower in territories where access levels are high (Murison et al. 2007), this is because disturbed birds nest later in the season. For nightjars there is also evidence of breeding success being lower on busier sites and busier parts of sites (Murison 2002). For woodlarks at least, there are clear population-level impacts as a result of the presence of people on the heaths (Mallord et al. 2007).

4.13 Alongside the disturbance of Annex I birds, the use of the heaths for recreation brings other issues (see Underhill-Day 2005 for review). Dog fouling results in nutrient enrichment, with dog faeces being very nutrient rich. Heathland soils are nutrient poor and enrichment results in a switch in vegetation to grassy swards. This can be exacerbated by trampling, which has a lesser effect on species such as grasses (which grow from the base rather than the tip). Where the level of nutrient enrichment from dog fouling has been quantified it has been shown to be very substantial (De Frenne et al., 2022).

4.14 The change in vegetation leads to a loss of habitat for many invertebrates and a loss of habitat for Annex I birds. Trampling can lead to vegetation wear, soil compaction and erosion. The presence of people and dogs can make grazing (necessary for management of sites) difficult[23], and recreational use can lead to people opposing conservation management, for example removal of tree or scrub cover (the heaths are open habitats which require regular management to maintain).

4.15 A further issue is increased predation, associated with urban areas. Domestic cats can occur at high densities in urban areas and have been recorded predating a wide variety of species, based on the prey items brought 'home' (Woods, McDonald & Harris 2003). Cats are suggested as a major source of mortality for some bird species in the UK (Baker *et al.* 2008). The impacts of cats are however not simply from direct predation, it is also important to recognise that the simple presence of an artificially high number of predators in an area can have an impact. The presence of cats may result in potential prey species changing their behaviour, switching to different habitats and even modifying their breeding behaviour; these sub-lethal effects (essentially relating to a fear of cats) are hard to quantify but could have marked additional impacts (Beckerman, Boots & Gaston 2007).

4.16 A range of potential predators to the Annex I bird species and herptiles are associated with gardens and environments with more people and buildings. These include Brown Rat, Red Fox, European Hedgehog, Magpie and Carrion Crow. These species can occur at particularly high densities – higher than would be expected on the heaths. An overview of the impacts, and relevant studies is provided by Underhill-Day (Underhill-Day 2005). A study of woodlarks nesting on the Thames Basin Heaths found foxes, carrion crows and magpies to be the main nest predators (Eyre & Baldwin 2014), so changes in the abundance of these predators are likely to have direct impacts on the SPA populations.

4.17 Fires can start in a range of ways, including deliberate arson, children playing, campfires, barbeques, sparks from vehicles, discarded cigarettes etc. 'Wild' fires can have a catastrophic impact on heathland wildlife. During dry weather fires can spread rapidly and burn large areas, for example a fire in Wareham Forest in 2020 spread over 200ha of heathland habitat and was believed to have been started by disposable barbeques. Such fires result in

[23] There are well developed plans to graze Hazeley Heath in the near future.

direct mortality for the Annex I birds, herptiles, insects and potential loss of plant species. After a fire, it can take many years for the habitat to be suitable for the species to recolonise and the same vegetation communities do not always return.

4.18 Recreation and urban effects can clearly therefore undermine the conservation objectives for the relevant European sites (see Appendix 1 for links to relevant documents and further information). For the Dorset Heathlands SPA, the supplementary advice for each species states in relation to disturbance:

"Disturbance caused by human activity is particularly significant within parts of the Dorset Heathlands SPA because of its proximity to large urban areas. Without avoidance measures, the cumulative effect of new housing would be likely to lead to an increase in urban pressures (e.g. an increase in wildfires, damaging recreational uses, introduction of incompatible plants and animals, loss of vegetation and soil erosion and disturbance by humans and their pets – Underhill-Day 2005) on parts of the SPA with negative effects on [relevant species] likely. A strategic approach to avoiding and mitigating these potential impacts arising as a result of new residential development has been developed for the Dorset Heathlands in response to the significant levels of housing growth."

4.19 Similarly, the supplementary advice for the two Dorset Heaths SACs highlights the issues with respect to recreation and urban effects, in relation to the structure and function of the SACs:

"Typical species such as the rare reptiles are vulnerable to effects associated with heaths in urban locations such as a high incidence of fires, predation by domestic cats and trampling or disturbance of egg-laying sites. Public access to lowland heathland from nearby residential developments and other proposals that lead to an increase in visitor numbers, or changes in the pattern of public access may increase the frequency of these effects. These effects are most marked within 400m of heathland. A strategic approach to avoiding and mitigating for potential impacts arising from recreational pressure as a result of new residential development has been developed for the Dorset Heathlands in response to the significant levels of growth in emerging regional plans. The mitigation strategy for the Dorset Heathlands has now been in place since 2006, The Dorset Heathlands Planning Framework Supplementary Planning Document 2015 – 2020 (SPD) sets out the detailed approach to the avoidance and mitigation of adverse effects of development on the Dorset Heathlands. The guiding principle of the SPD is that there is no net increase on urban pressures".

Established mitigation approach: the Dorset Heathlands Planning Framework

4.20 Urban effects and recreation impacts are synergistic and relate to the overall volume of housing. Impacts of development are therefore cumulative, i.e. additional new housing adds to the effect from existing housing. Development in close proximity to the heathland sites is likely to have the greatest impact, but development over a wide area has the potential to give rise to deleterious effects.

4.21 The issues of urban effects have long been recognised on the Dorset Heaths (De Molinaar, 1998; Haskins, 2000; Liley et al., 2007). The strategic approach to avoidance and mitigation for urban effects in Dorset is long established, with local authorities within 5km of the heaths setting out a joint approach in 2007 that has been subsequently been revised and updated, with the current iteration set out in a joint supplementary planning document (SPD) that runs from 2020-25 (Dorset Council and BCP Council, 2020)[24].

4.22 Recreation pressure is complex, as the way visitors use a site can change with time and the distribution of the qualifying features can also change. Furthermore, to ensure effectiveness, mitigation needs to include a package of measures that work in an integrated way. For example, educating visitors, reinforcing messages with site-based staff, and providing the right infrastructure to meet visitor needs and influence visitor behaviour could all fit together as part of a mitigation package, but cannot be delivered in a piecemeal way, implemented by individual developments.

4.23 Collective funding is essential for on-site measures, and these can then in turn be supported by the provision of the right alternative green infrastructure, i.e. a positive step to create more space for recreation and make a meaningful reduction in visits to the European sites. A strategic approach also ensures that mitigation can be secured in a way to maximise benefits for local communities and wildlife, ensuring a positive approach that provides for recreation use and ensures long-term protection for the European sites.

[24] See relevant page on Dorset Council website for details

4.24 Climate change will impact the distribution of the qualifying features, exacerbate risks such as fire incidence, change recreation patterns and fundamentally change the coast and surrounding habitats.

4.25 Recreation use will shift over time in response to trends, social media and a range of social factors and as such there is some complexity and inevitable uncertainty around the scale of future risk. Dog ownership increased markedly during Covid (Morgan et al., 2020). Wild swimming (Bates and Moles, 2022), paddleboarding (Baker et al., 2021), e-bikes (Rérat, 2021) and drones (Rebolo-Ifrán et al., 2019) are becoming increasingly popular. Changes to camera technology mean wildlife photography is now much more popular. Tourism trends are also changing, with for example an increase in campervans, mobile homes and short-trip vacations to countryside destinations (e.g. Sommer, 2020). Such changes in the types of activity and how recreation takes place may mean people access sites in novel ways, at different times of day or different seasons. Mitigation needs to be flexible to these changes and be able to respond appropriately.

4.26 The Dorset Heathlands Planning Framework consists of two mutually dependent and supporting policy mechanisms:

- Restrictions on development within 400m of heathland; and
- Mitigation for particular types of development within 400m – 5km of heathland, involving:

    1) Strategic Access Management and Monitoring (SAMM); and
    2) Heathland Infrastructure Projects (HIPs), which include Suitable Alternative Natural Greenspace (SANG).

4.27 SAMM involves awareness raising, education and wardening as well as monitoring. HIPs cover physical infrastructure, such as enhancing existing greenspace or creating new spaces, targeted for recreation. These avoidance and mitigation measures are therefore designed to resolve issues associated with urban effects and recreation. Full details of how the various measures are established and implemented are set out in the SPD. Policy 7 in the Plan sets out the need for mitigation and cross-references to the SPD.

4.28 The mitigation approach for the Dorset Heaths is long-established, has provided the model for other similar strategic mitigation schemes across the country and has been refined and updated over time. It has been tested at a range of public inquiries and local plan examinations. Panter *et al.* (2021) provide a review of monitoring data relating to the Dorset Heathlands

Planning Framework and covering the period 2007-2020. The review was commissioned from BCP and Dorset Councils in 2021 with the aim of reviewing mitigation delivery and effectiveness and using the results to highlight implications for future mitigation delivery. It. highlights some of the achievements of the mitigation approach and makes a series of suggestions for the future direction of the mitigation delivery.

4.29 The 400m zone ensures development is set back from the heaths, reducing impacts from cats, fires from gardens, spread of non-native species and loss of off-site foraging areas. It gives greater confidence in the effectiveness of mitigation as it prevents housing coming forward in the most sensitive locations. The 400m zone is secured in Policy 7.

4.30 The current Dorset Heathlands Planning Framework joint SPD runs until 2025 and it is the intention of the relevant Council to produce an updated strategy. This will allow the two Councils to ensure the mitigation proposed aligns with the evidence and relates to the levels of growth proposed in their plans. Compliance with the mitigation strategy ensures a conclusion of no adverse effect on integrity for the Dorset Heaths SACs/SPA/Ramsar from urban effects and recreation, alone or in-combination. Given the strategy is currently in its third iteration there is no reason to assume that mitigation delivery will not continue. The Plan is clear in Policy 7 that proposed development will provide mitigation in accordance with the strategy or appropriate to the adverse effects identified, and this gives sufficient confidence that development will only proceed with suitable mitigation secured and in place.

Heathland Infrastructure Projects (HIPs)

4.31 The Dorset Heathlands Planning Framework gives a guideline of around 50 dwellings as the necessary size of development to trigger the SANG provision (unless stated differently in an existing adopted local plan for an area). In built up areas, opportunities to provide HIPs alongside large developments are more constrained and approaches can vary, for example with respect to contributions towards a strategic HIP. The Dorset Heathlands Planning framework does not apply a rigorous minimum per ha standard for the amount of SANG provided per development.

4.32 SANG considerations are relevant in relation to the Former Civic Offices site (Policy 17). The Plan does not give a quantum figure for the amount of housing that is expected to come forward at this site. The site is considered

suitable for mixed use. Constraints include flood risks, the presence of a number of Grade II Listed Buildings and important sports and leisure facilities. As such it is not clear how much housing might come forward at the site. The Plan (paragraph 7.45) refers to the limited size of the site in terms of SANG provision and indicates that improvements to the nearby Stanpit SANG could provide sufficient mitigation. Given lack of clarity about the number of dwellings, the need for SANG and specific details of the mitigation will need to be confirmed at project level, alongside any application that comes forward for the site. Details will need to be confirmed prior to any planning application and agreed with Natural England.

4.33 The other allocation where SANG considerations are relevant is the Christchurch Hospital site on Fairmile Road. This is stated as being able to deliver about 160 homes including key worker homes, care or extra care uses. Previous masterplans for the site aimed to build a larger Macmillan hospice and to create a senior living community, as well as extending the hospital itself. As such there is uncertainty as to how much SANG might be necessary and the scale of risk for the Dorset Heaths. Where residents are very frail and not mobile, risks from recreation can be ruled out. The site (around 580m from the nearest part of the heaths) is beyond the distance many residents might walk. SANG requirements will need to be determined at project level, once the full details of the scale of development and likely uses are proposed. The Plan sets out options that include contributions towards the Stour Valley to the west or to enhance Endfield Road Recreation Ground. Details will need to be confirmed prior to any planning application and agreed with Natural England.

5. Appropriate assessment: Recreation and the New Forest SAC/SPA/Ramsar

Policies identified in the screening

5.1 All allocations were screened in, in-combination, for recreation impacts in relation to the New Forest SAC/SPA/Ramsar.

5.2 Mitigation in relation to recreation is set out in Policy 7, which sets the need for contributions, and conformity with, the existing strategic mitigation scheme.

The New Forest SAC/SPA/Ramsar

5.3 Any changes in recreation use could lead to a number of impacts relevant to the European site qualifying features. The issues for the New Forest are very similar to those already discussed for the Dorset Heaths (see previous section).

5.4 There is also a large body of specific evidence on impacts for the New Forest sites (for further information and review see Lake et al., 2020; Liley et al., 2021). One key difference is that the Dorset Heaths SAC/SPA/Ramsar extend into Christchurch and are within walking distance of many areas, whereas the New Forest is further away meaning access is likely to be mostly by car and focussed at car parks. Furthermore, the New Forest SAC/SPA/Ramsar lies within the National Park and as such the facilities, draw and management is different (see Lake et al., 2020 for discussion and further details).

Strategic mitigation

5.5 The New Forest lies relatively close to a number of settlements and urban areas including Southampton, Salisbury, Bournemouth and Christchurch. For the New Forest SPA/SAC/Ramsar issues around recreation have long been recognised and addressed by individual local authorities through dedicated, separate mitigation schemes.

5.6 A large volume of background evidence sets out the links between where people live and recreation use of the Forest and the impacts associated with such use (Lake et al., 2020; Liley et al., 2020a, 2020b; Liley and Panter, 2020; Panter and Saunders, 2020).

5.7 In order to ensure no adverse effects on the integrity of the New Forest SAC/SPA/Ramsar from new development, some of the surrounding local authorities have established a range of mitigation measures and these have typically been implemented on an authority-by-authority basis to date. More recently, and following extensive evidence gathering, local authorities have come together to develop a strategic mitigation approach, based on a 13.8km zone of influence.

5.8 A SAMM strategy has been established, and this sets out a range of mitigation measures relating to access management and monitoring within the New Forest. BCP Council are part of the group of authorities involved in the development of this strategy[25] and the implementation of the strategy is referenced in Policy 7 of the Plan. The strategy also relies on SANG for mitigation and SANG are already secured as part of heathland mitigation. There is no need to duplicate SANG provision where there are multiple European sites and this is the approach assumed by the New Forest SAMM strategy and also by neighbouring authorities (for example see Liley, 2022).

5.9 The 13.8km zone of influence covers the whole of Christchurch and the relevant housing allocations within it. The New Forest SAMM approach has been developed on the approximate assumption of around 45,000 new dwellings requiring mitigation, of which around 10,313 might come forward in BCP. The mitigation as set out therefore more than addresses the allocations and likely windfall etc. anticipated within the Plan.

5.10 By addressing risks up front, these schemes provide a proactive, cross-boundary, solution that ensures cumulative impacts of growth are taken into account and that the necessary resources and costs are identified.

[25] See https://www.bcpcouncil.gov.uk/planning-and-building-control/apply-for-planning-permission/developer-contributions

6. Appropriate assessment: Disturbance and the Solent and Dorset Coast SPA

Policies identified in the screening

6.1 Likely significant effects were identified alone for the Solent and Dorset Coast SPA with respect to Policy 17, the former civic offices site.

The Solent and Dorset Coast SPA and potential risks

6.2 The Solent and Dorset Coast SPA is a very large SPA covering an extensive body of coastal water classified for foraging terns of three species: Sandwich Tern, Little Tern and Common Tern. These three species feed in shallow coastal waters, diving for small fish.

6.3 The SPA includes open coastal waters as well as the waters of various harbours, including Christchurch Harbour. The SPA boundary extends beyond the River Avon SAC to include the marina and nearby channels directly adjacent to the former civic offices site (Policy 17). The relevant parts of the SPA are shown in Map 7.

6.4 The risks are potentially low and no risks were identified for the Solent and Dorset Coast SPA in the HRA for the now withdrawn BCP local plan. Previous surveys have demonstrated use of marinas and built up areas by terns (Liley, 2017) and the various harbours and marinas included in the SPA were present at classification.

6.5 Nonetheless, there is scope to undermine the conservation objectives. The supplementary conservation objectives[26] refer to disturbance for all three tern features and set a target to: "*Restrict the frequency, duration and / or intensity of disturbance affecting roosting, nesting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed*".

6.6 Supporting notes provide further detail, for example for Common Tern: "*Foraging behaviour may be interrupted if birds are feeding close to places where*

[26] See https://designatedsites.naturalengland.org.uk/ConservationAdvice/SupplementaryAdvice.aspx?SiteCode=UK9020330&SiteName=solent&SiteNameDisplay=Solent+and+Dorset+Coast+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=3

recreational activities take place…. However, foraging mainly occurs offshore and there is no evidence to suggest that foraging behaviours are impacted by movement of watercrafts. Common terns forage throughout the harbours within the SPA and into the wider Solent offshore areas, amongst and around boats, ships and personal watercrafts."

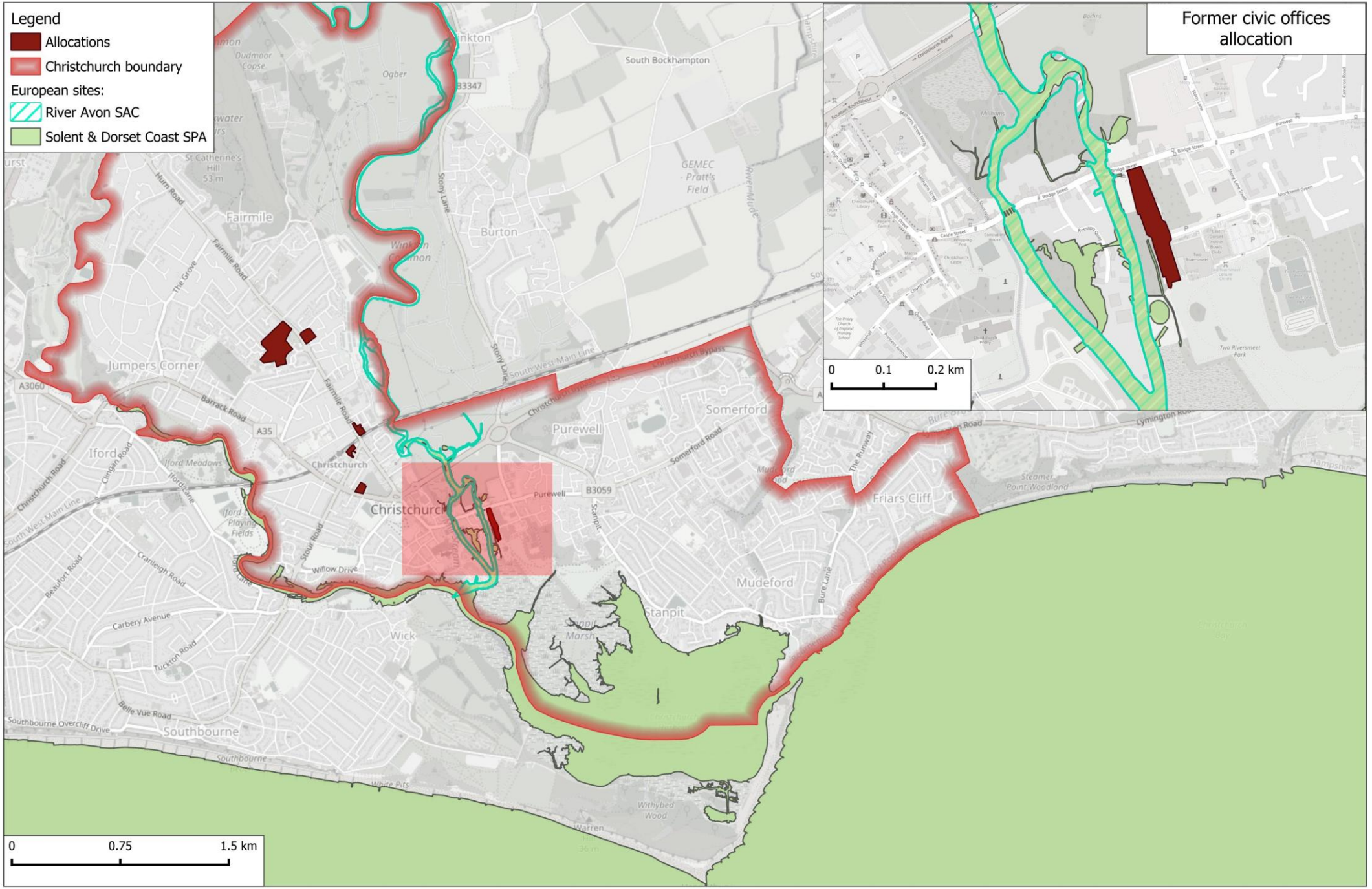
6.7 Given that foraging behaviour may be interrupted by disturbance, the immediate proximity of the SPA to the site needs to be considered. Construction work, building height and the presence of more people and activity during construction and once built could influence the extent the area is used by the birds. Given the characteristics of the adjacent parts of the SPA – i.e. very small areas of water in an already built-up environment – it is quite possible that the risks are small, if present at all.

6.8 Given the large overall size of the SPA (88,980ha) the small areas of water adjacent to the former civic offices are unlikely to provide important foraging areas. It may also be that these areas of the SPA are simply site fabric, i.e. are not part of the special interest of the site and nor do they contribute to the interest in any way. It is possible their inclusion in the SPA boundary reflects pragmatic decisions around where the boundary is drawn and convenience in defining an area. Many European site boundaries encompass small car parks, areas of hard standing and parts of road verges that are part of a site but are not expected to make a contribution to the achievement of conservation objectives.

6.9 Further checks are recommended prior to any planning application and to inform project-level HRA. These could involve checks for records of terns in the area, targeted surveys during the breeding season and advice from Natural England.

6.10 Given the very localised nature of the issue and low levels of risk (if any), further checks will not undermine the plan in any way and simply need to be undertaken to inform site design and further master-planning of the site, to ensure any risks are addressed. The terns are only present during the summer, and so construction work could easily be scheduled during the winter period and carefully planned design/layout could ensure disturbance risks are avoided.

Map 7 Former civic offices site in relation to the Solent and Dorset Coast SPA



7. Appropriate assessment: Water quality and the River Avon SAC and the Solent & Dorset Coast SPA

Policies identified in the screening

7.1 Likely significant effects were identified in-combination for nutrient-neutrality impacts and the River Avon SAC with respect to policies 14, 15, 18 and 19. In addition, likely significant effects alone for water quality and the River Avon SAC in terms of run-off and surface water contamination for Policy 17.

7.2 Policy 7 sets out mitigation requirements in relation to water quality and the River Avon SAC.

7.3 Likely significant effects were also identified for Policy 17 alone for the Solent & Dorset Coast SPA and in-combination for all other allocations.

Wastewater and nutrient neutrality

7.4 Wastewater or sewage can be very damaging to water bodies as it can contain large amounts of nutrients (such as phosphates and nitrates), ammonia, bacteria, harmful chemicals and other damaging substances. Issues arise where sewage treatment technology to adequately reduce levels of phosphates and harmful chemicals is not in place, where leakages occur from privately owned septic tanks and, in wet weather, storm overflows can discharge untreated sewage. Poorly installed domestic washing machines and even washing cars at home can, in places, also add to the pollution load. Outcomes can include increased turbidity, algal blooms, reduced dissolved oxygen and an overall increase in the nutrient status of receiving waterbodies. Simply, increases in housing increase pressure on the sewage network and the volume of wastewater.

7.5 The pollution of inland and coastal waters has received greater recognition in recent years and the significance of such potential impacts and the need to mitigate has been given emphasis by Natural England's advice to local planning authorities. Natural England have advised that new development affecting vulnerable water bodies must achieve 'nutrient neutrality', i.e. avoid

any net increase in nitrate and/or phosphate pollution. Whilst this relates primarily to the disposal of foul water, run-off from hard surfaces can also be a factor. This reflects contemporary case law (the Dutch case) which makes clear that where water quality targets of European sites are not being met, further inputs of pollutants should not be allowed.

7.6 The River Avon SAC is covered by Natural England's advice and a need for nutrient neutrality. Any development involving the potential for overnight accommodation within the catchment will therefore need to ensure nutrient neutrality, specifically in terms of phosphates.

7.7 The Solent & Dorset Coast SPA is classified for foraging terns, which range over shallow coastal waters and dive for small fish. Given the mixing of coastal waters any nutrient enrichment is likely to be very diluted and risks for terns are potentially low. There is however potential for the conservation objectives to be undermined as the supplementary conservation advice for the SPA sets a target to maintain water quality for all 3 tern species. Studies have demonstrated impacts of water quality on foraging success for Sandwich Terns (Baptist and Leopold, 2010) and Natural England have advised[27] that water quality is a relevant impact pathway with respect to the SPA.

Mitigation

7.8 With respect to the River Avon SAC, Policy 7 ensures development can only come forward if neutrality in relation to phosphates is achieved: "*development proposals that would result in an increase in phosphorous loading within the catchment of the River Avon SAC must include the provision of appropriate avoidance / mitigation measures to ensure development is 'phosphorous neutral'.*" Allocations set out in Policies 14, 15, 18 and 19 are all within, or potentially within, the River Avon catchment and supporting text highlights this.

7.9 The HRA work for the withdrawn Local Plan reviews the potential for mitigation [28]. It highlights that the Christchurch water recycling centre

[27] Natural England representations to Dorset Council regarding the Regulation 18 version of the Dorset Plan, 2025

[28] See para graphs 6.2.15 – 6.2.18 in the overview, document SD6a in the examination library, available at https://www.bcpcouncil.gov.uk/planning-and-building-control/planning-policy/examination-library

discharges treated effluent to the Hampshire Avon SAC and that a total TP load of 700.51kg would need to be mitigated to achieve nutrient neutrality for the Local Plan allocations. It indicates that mitigation credits could be purchased if mitigation cannot be provided on site and two credit options are listed in the HRA. Both are trout farms where the cessation of trout farming would reduce phosphates entering the river. These credits are shown to provide more than sufficient mitigation for the housing allocations in the BCP, Dorset and New Forest District Council areas. As such it is clear mitigation options are available, deliverable and can be secured at the point development comes forward.

7.10 It is necessary for the mitigation to be delivered prior to each housing being occupied, but details can be secured once the number of dwellings and site details are confirmed, at the point of the planning application. As such the requirement for nutrient neutrality set out in the Plan ensures risks are addressed for the River Avon SAC and impacts avoided.

7.11 The requirement for nutrient neutrality and the River Avon SAC means that nutrient issues for the Solent and Dorset Coast SPA are also largely addressed. Two allocations (Policies 16 and 17) are outside the River Avon SAC catchment and would therefore be the only allocations with any water quality risk for the Stour component of the Solent and Dorset Coast SPA. These together represent a very small amount of growth. Given the terns feed on small fish around the surface of the water, any enrichment would have to be very dramatic to impact foraging behaviour. Sandwich Tern and Little Tern are both species that are very much coastal and they do not feed within the Stour. Common Tern use of the Stour is limited. Risks of wastewater contamination into the Solent and Dorset Coast SPA, as a result of the Plan, can therefore be discounted. This decision was checked with Natural England who have advised[29] that they consider minor additional N discharge into Christchurch Harbour to be insignificant and would not prejudice the achievement of the conservation objectives for the Solent sites with respect to eutrophication.

Policy 17 former civic offices site

7.12 Likely significant effects were identified for the former civic offices site alone, due to its proximity to the River Avon SAC and Solent and Dorset Coast SPA

[29] Letter from Nick Squirrell, dated 11th November 2025

(see Map 7 for details). For this site there is a specific local risk with run-off from the allocation site onto the European site, including from construction. This risk is likely to be exacerbated by flooding.

7.13 These risks can only be fully assessed at project level and suitable mitigation, where necessary, secured through design. Sustainable Urban Drainage (SUDS), layout, landscaping and boundary works will determine the degree of risk.

7.14 The generic protective wording in Policy 7 ensures risks for European sites must be properly assessed and addressed. Supporting text to Policy 17 identifies that care will need to be taken on the boundaries where the site abuts important wildlife sites, in order to ensure that these are not harmed. The River Avon SSSI and local green space important for wildlife (that forms a buffer between the allocation and the SAC) are both clearly marked on the map that is included with the supporting text. These protections should ensure that site design and layout provides the necessary protection and these can be checked at project level through the HRA.

8. Appropriate assessment: Air quality and the Dorset Heaths SAC/SPA/Ramsar and the New Forest SAC/SPA/Ramsar

Policies identified in the screening

8.1 Likely significant effects were identified in-combination for all allocations with respect to air quality and the Dorset Heaths SAC/SPA/Ramsar and the New Forest SAC/SPA/Ramsar.

8.2 Mitigation in relation to air quality and the Dorset Heaths is secured in Policy 7.

Overview of impact

8.3 The primary impact mechanism for air quality relates to increased traffic emissions. Development is typically associated with increased traffic and emissions which can increase the airborne concentration of nitrogen oxides (NO_x) and ammonia (NH_3), and the subsequent rate of nitrogen deposition from the atmosphere. This can lead to the nutrient enrichment and acidification of soils, encouraging more tolerant ruderal species at the expense of sensitive plant, lower plant and invertebrate communities. In high concentrations, ammonia can result in direct toxic effects on vegetation, a factor which may also be true of NO_x. Larger animals, such as small mammals and birds are considered immune to direct effects but can be vulnerable to change in their supporting habitats. Furthermore, it can exacerbate the effects of other factors such as climate change or pathogens, for example.

8.4 Air quality impacts decline with distance away from the road, and it is therefore only where a road goes through a European site or is within 200m of the site, that impacts are likely (see CIEEM, 2021; Natural England, 2018 for background and discussion on the application of the 200m distance).

8.5 The Dorset Heaths SAC/SPA/Ramsar is crossed by a wide range of roads (see Map 6), in particular the A338 (Spur Road) runs north from Christchurch and is the main route north. It runs within 200m of the heaths in numerous locations, including Town Common, Sopley Common and Week Common. The New Forest SAC/SPA/Ramsar is also bisected by numerous roads, with

the A35 (to Lyndhurst) and the A31 (from Ringwood) connecting to the M27 on the eastern edge of the New Forest.

8.6 For both the Dorset Heaths SAC/SPA/Ramsar and the New Forest SAC/SPA/Ramsar, the HRA that accompanied the withdrawn BCP local plan drew on traffic modelling. It identified that the local plan was likely to trigger exceedances >1% of the critical level for Nitrogen deposition for the Dorset Heaths SAC, Dorset Heathlands SPA/Ramsar and the New Forest SAC/SPA/Ramsar.

8.7 The HRA recommended that further plan level assessment was necessary prior to adoption and that dispersion modelling was necessary to confirm the spatial extent of changes to air quality.

8.8 For the New Forest SAC/SPA/Ramsar, the HRA work undertaken for the existing New Forest National Park Authority Local Plan, and New Forest District Council's Local Plan identified uncertainties around the potential for in-combination effects of traffic and impacts to the New Forest SAC/SPA/Ramsar. The Local Plans included commitments to monitor and, if necessary, mitigate adverse air quality. A mitigation strategy was produced with a detailed monitoring regime to monitor air quality concentrations and habitat condition at representative locations. The results from the initial monitoring (in 2021) are summarised by Atkins (2022). Subsequent, future monitoring was scheduled to be carried out at the same fixed-point monitoring locations in 2024 and 2027.

8.9 The monitoring results from 2021 provided no indication that the New Forest SAC is being adversely affected by local traffic emissions 45m or more from the road. Atkins recommended that further repeats of the monitoring would be useful to determine if any changes occur with the predicted increases in traffic emissions.

Mitigation and implications for the Plan

8.10 Air quality is a strategic issue that relates to the in-combination effects of traffic over a wide area. It is best assessed and addressed at a local plan level. Unfortunately, the HRA work for the withdrawn BCP local plan was incomplete with respect to air quality and as such there is no higher-tier assessment work that can be relied on.

8.11 When considering air quality impacts, a process contribution of 1% of the relevant critical load or level, either alone or in combination with other plans

or projects, is usually used to identify an effect as potentially significant. Air quality modelling work to generate process contribution data for the allocations within the Plan, in-combination with growth in surrounding areas (BCP, New Forest District and the New Forest National Park) is a significant undertaking and not currently available.

8.12 The level of growth with the Plan is relatively limited. The principal concern is the Dorset Heaths SAC/SPA/Ramsar, given the layout of the road network. For the Dorset Heaths SAC/SPA/Ramsar there is an existing air quality mitigation strategy (2020-2025)[30]. This (and any subsequent revisions) provides a means to ensure that the necessary monitoring and mitigation is secured. The Strategy is cross-referenced in Policy 7.

8.13 For the New Forest SAC/SPA/Ramsar there are speed restrictions in place across much of the National Park and traffic from Christchurch is unlikely to use the A35 as the main route north or east due to the time taken to cross the Forest, particularly around Lyndhurst. As such risks are relatively low and monitoring is secured by neighbouring authorities.

[30] https://www.bcpcouncil.gov.uk/about-the-council/strategies-plans-and-policies/dorset-heathlands-air-quality-strategy

9. Key findings and integrity test

9.1 The Christchurch Neighbourhood Plan (draft plan) has been subjected to an appropriate assessment and integrity test according to the statutory provisions laid out in the Habitats Regulations 2017, as amended. The HRA will be updated once the Plan is finalised and ready for adoption.

9.2 Likely significant effects were identified for the Dorset Heaths SAC and Dorset Heathlands SPA/Ramsar with respect to recreation. The Dorset Heaths Planning Framework provides the mechanism to deliver mitigation and has been in place since 2007. With the Framework secured in the long-term and running for the duration of the Plan, with adequate revisions and monitoring to ensure it adapts to any changing circumstances, risks are addressed. Policy 7 provides a necessary 'break' on development should mitigation not be secured.

9.3 The Planning Framework includes a restriction on any additional residential development within a 400m zone around the heaths. This ensures development avoids the most sensitive locations and is secured in Policy 7.

9.4 HIPs are part of the mitigation requirements set out in the Planning Framework and in order to meet the housing growth coming forward it is necessary to ensure there are sufficient HIPs. Given lack of clarity about the number of dwellings associated with the larger allocations, the need for SANG and specific details of the mitigation will need to be confirmed at project level, alongside any application that comes forward for the site. Details will need to be confirmed prior to any planning application and agreed with Natural England. Policy wording for the two site allocations ensure permission at project level would be dependent on sufficient and suitable SANG being available and secured.

9.5 With necessary detail added around the need to secure SANG, adverse effects on integrity from recreation for the Dorset Heaths SAC and the Dorset Heathlands SPA/Ramsar can be ruled out, through the reliance on the Planning Framework. The mitigation SPD is jointly adopted between BCP Council and Dorset Council; adherence to the strategy by both councils gives the reassurance that in-combination effects are addressed and there is no need for further in-combination assessment.

9.6 Similarly, a strategic mitigation scheme provides the means to address recreation impacts for the New Forest SAC/SPA/Ramsar. The approach has

been developed over a number of years by relevant planning authorities, working with Natural England and Forestry England (who manage most of the New Forest). The mitigation is a strategic approach and once agreed by all the planning authorities within the 13.8km zone of influence, can be relied on to rule out adverse effects on integrity alone or in-combination. Given the strategy is nearly finalised, the zone of influence clearly set out on the BCP website and mitigation measures identified, there is no reason to suggest it will not be in place when the development in the Plan comes forward. Policy 7 contains wording to ensure that, prior to the strategy being fully adopted, mitigation is secured. As such adverse effects can be ruled out alone and in-combination.

9.7 Likely significant effects were also identified with respect to recreation/disturbance and the Solent and Dorset Coast SPA, as a result of the allocation at the Former Civic Offices (Policy 17). Risks are low (as the areas are unlikely to be used much by foraging terns) but given the proximity of the SPA to the allocation site and the absence of further information, further detail and evidence are necessary to rule out adverse effects on integrity. Concerns would relate to construction, people around the buildings and on the edge of the water that form the SPA. Impacts can only be fully assessed at project level and some further evidence gathering around the use of the area by foraging terns may be necessary. Given the low risk, and scope for any such risks to be addressed at project level HRA once further details of the development (such as masterplans) are available, it is entirely appropriate to rely on lower tier assessment at project level. Such an approach accords with the advice in the HRA Handbook[31] (Tyldesley and Chapman, 2013). The need for further assessment is identified within Policy 17, and as such, adverse effects on integrity at the Plan level can be ruled out and there is no need for in-combination assessment.

9.8 Likely significant effects for water quality and nutrient neutrality on the River Avon SAC were identified. Policy 7 ensures that development proposals that would result in an increase in phosphorous loading within the catchment of the River Avon SAC must include the provision of appropriate avoidance / mitigation measures to ensure development is 'phosphorous neutral'. Allocations set out in Policies 14, 15, 18 and 19 are all within or potentially within the catchment and this is identified in the supporting text for each. Cross-reference to the now withdrawn BCP Local Plan provides evidence that

[31] See section F.10.1.5

sufficient mitigation is available to address in-combination effects from all relevant authorities that fall within the Avon catchment. As such mitigation options are available and can be secured. At a Plan level, adverse effects can therefore be ruled out. The requirement for nutrient neutrality ensures there are no residual risks and no need for further in-combination assessment.

9.9 Adverse effects on integrity from wastewater contamination of the Solent and Dorset Coast SPA can also be ruled out. The requirement for nutrient neutrality with respect to the River Avon SAC also removes risks for virtually all development and the SPA. The remaining two allocations (that lie in the Stour catchment rather than the Avon catchment) mean only a small amount of growth is relevant. Terns hardly use the River Stour for foraging and any change in water quality would have to be very marked to affect the ability of the terns to fish. As such the risks can be discounted entirely and adverse effects on integrity ruled out alone or in-combination with other plans or projects.

9.10 Likely significant effects were identified with respect to water quality from run-off and the River Avon SAC/Solent and Dorset Coast SPA, as a result of the allocation at the Former Civic Offices (Policy 17). Risks relate to the proximity of the allocation and risks from run-off associated with construction or flood water. Impacts can only be fully assessed at project level once the design details are known and conditions can be secured around bunding during construction, drainage requirements etc. The requirement for these measures has been added to the criteria for the allocation and ensures adverse effects on integrity can be ruled out at Plan level.

9.11 Air quality is a strategic issue that relates to the in-combination effects of traffic over a wide area. It is best assessed and addressed at a local plan level. Unfortunately, the HRA work for the withdrawn BCP local plan was incomplete with respect to air quality and as such there is no higher-tier assessment work that can be relied on. The principal concern is the Dorset Heaths SAC/SPA/Ramsar, given the layout of the road network. There is an existing air quality mitigation strategy (2020-2025)[32]. This (and any subsequent revisions) provides a means to ensure that the necessary monitoring and mitigation is secured. The Strategy is cross-referenced in

[32] https://www.bcpcouncil.gov.uk/about-the-council/strategies-plans-and-policies/dorset-heathlands-air-quality-strategy

Policy 7. Reliance on the strategic approach, which has been approved by Natural England and adopted by both BCP Council and Dorset Council provides the confidence that adverse effects on integrity can be ruled out for the Dorset Heaths from the in-combination effects of traffic. **As the Plan progresses any further updates to the strategy should be checked and cross-referenced as relevant.**

9.12 For the New Forest SAC/SPA/Ramsar risks relating to traffic flow and air quality are less. As the Plan does not set any particular quantum or level of growth and when any development might come forward, it is difficult to assess further and have precision around how traffic flows might change and when. Monitoring of air quality is secured by neighbouring authorities (New Forest District Council and the New Forest National Park Authority). This monitoring should be used to inform the HRA for individual planning applications and Policy 7 ensures, if any risks are identified, the development will not proceed. As such adverse effects at plan level can be ruled out, alone or in-combination.

9.13 The Plan has been revised to incorporate a number of small text changes that add clarity or further detail around HRA matters and European sites – following initial feedback as part of the HRA work. It can be concluded that the Christchurch Neighbourhood Plan, draft plan version, is in conformity with the Habitats Regulations, and at a plan level a conclusion of no adverse effects on European site integrity, alone or in-combination with other plans or projects, can be drawn.

References

Atkins Ltd., 2022. New Forest Habitat and Air Quality Monitoring. Report by Atkins for New Forest District Council and the New Forest National Park Authority.

Baker, J., D'Antonio, A., Monz, C., Taff, D., Rice, W.L., Newton, J., Newman, P., Miller, Z.D., Freeman, S., 2021. What's 'SUP' with paddlers? Integrating spatial, social, and ecological data to understand behavior among paddlesport users at a popular lake destination. Applied Geography 135, 102531. https://doi.org/10.1016/j.apgeog.2021.102531

Baptist, M.J., Leopold, M.F., 2010. Prey capture success of Sandwich Terns Sterna sandvicensis varies non-linearly with water transparency. Ibis 152, 815–825. https://doi.org/10.1111/j.1474-919X.2010.01054.x

Bateman, I.J., Harwood, A.R., Abson, D.J., Andrews, B., Crowe, A., Dugdale, S., Fezzi, C., Foden, J., Hadley, D., Haines-Young, R., Hulme, M., Kontoleon, A., Munday, P., Pascual, U., Paterson, J., Perino, G., Sen, A., Siriwardena, G., Termansen, M., 2014. Economic Analysis for the UK National Ecosystem Assessment: Synthesis and Scenario Valuation of Changes in Ecosystem Services. Environ Resource Econ 57, 273–297. https://doi.org/10.1007/s10640-013-9662-y

Bates, C., Moles, K., 2022. Bobbing in the park: wild swimming, conviviality and belonging. Leisure Studies 0, 1–13. https://doi.org/10.1080/02614367.2022.2085774

Bragg, R., Atkins, G., 2016. A review of nature-based interventions for mental health care. Natural England Commissioned Reports, Number 204.

Buckley, R., 2004. Environmental impacts of Ecotourism. CABI, Wallingford, Oxfordshire.

Chapman, C., Kite, B., 2021. Guidance on decision-making thresholds for air pollution (JNCC Report No. 696). JNCC, Peterborough.

CIEEM, 2021. Advice on Ecological Assessment of Air Quality Impacts. Chartered Institute of Ecology and Environmental Management.

Dasgupta, P., 2021. The Economics of Biodiversity: The Dasgupta Review. HM Treasury, London.

Day, B.H., 2020. The Value of Greenspace Under Pandemic Lockdown. Environ Resource Econ 76, 1161–1185. https://doi.org/10.1007/s10640-020-00489-y

De Frenne, P., Cougnon, M., Janssens, G.P.J., Vangansbeke, P., 2022. Nutrient fertilization by dogs in peri-urban ecosystems. Ecological Solutions and Evidence 3, e12128. https://doi.org/10.1002/2688-8319.12128

De Molinaar, H.J.G., 1998. On-the-spot appraisal of the Dorset heathland, UK. Report and recommendations to the standing committee on The Convention on the Conservation of European Wildlife and Natural Habitats. Council of Europe., Strasbourg:

Dorset Council, BCP Council, 2020. The Dorset Heathlands Planning Framework 2020-2025 Supplementary Planning Document.

Haskins, L., 2000. Heathlands in an urban setting - effects of urban development on heathlands of south-east Dorset. British Wildlife 11, 229–237.

Kirby, J.S., Tantram, D.A.S., 1999. Monitoring heathland fires in Dorset: Phase 1.

Kondo, M.C., Oyekanmi, K.O., Gibson, A., South, E.C., Bocarro, J., Hipp, J.A., 2020. Nature Prescriptions for Health: A Review of Evidence and Research Opportunities. International Journal of Environmental Research and Public Health 17, 4213. https://doi.org/10.3390/ijerph17124213

Lake, S., Liley, D., Saunders, P., 2020. Recreation use of the New Forest SAC SPA Ramsar: Impacts of recreation and potential mitigation approaches (No. 499). Footprint Ecology / Test Valley BC.

Lee, A.C.K., Maheswaran, R., 2011. The health benefits of urban green spaces: a review of the evidence. J Public Health 33, 212–222. https://doi.org/10.1093/pubmed/fdq068

Liddle, M.J., 1997. Recreation Ecology. Chapman & Hall, London.

Liley, D., 2022. Visitor use of the New Forest by residents of Dorset and implications for the Dorset Local Plan. Report by Footprint Ecology for Dorset Council.

Liley, D., 2017. Use of marinas and channels in Poole Harbour by terns : verification survey for Poole pSPA (No. 411). Footprint Ecology / Natural England.

Liley, D., Clarke, R., Panter, C., Saunders, P., 2020a. Recreation use of the New Forest SAC/SPA/Ramsar: Overview of visitor results and implications of housing change on visitor numbers (published report No. 499). Footprint Ecology / Test Valley BC.

Liley, D., Clarke, R.T., Underhill-Day, J., Tyldesley, D.T., 2007. Evidence to support the Appropriate Assessment of development plans and projects in south-east Dorset. Footprint Ecology / Dorset County Council.

Liley, D., Lake, S., Panter, C., Saunders, P., 2019. Potential impacts of recreation on Woodland Trust reserves: a general review (Unpub. No. 521). Footprint Ecology / Woodland Trust.

Liley, D., Lake, S., Underhill-Day, J., Sharp, J., White, J., Hoskin, R., Cruickshanks, K., Fearnley, H., 2010. Welsh Seasonal Habitat Vulnerability Review. Footprint Ecology / CCW.

Liley, D., Panter, C., 2020. Recreation use of the New Forest SPA/SAC/Ramsar: Results of a telephone survey with people living within 25km (Unpublished No. 499). Footprint Ecology / Test Valley BC.

Liley, D., Panter, C., Caals, Z., Saunders, P., 2020b. Recreation use of the New Forest SAC/SPA/Ramsar: New Forest visitor survey 2018/19 (Unpublished No. 499). Footprint Ecology / Test Valley BC.

Liley, D., Saunders, P., Caals, Z., Fleming, B., 2021. Forestry England Recreation Permissions in the New Forest: background evidence and mitigation protocol. Report by Footprint Ecology for Forestry England.

Lowen, J., Liley, D., Underhill-Day, J., Whitehouse, A.T., 2008. Access and Nature Conservation Reconciliation: supplementary guidance for England.

Marzano, M., Dandy, N., 2012. Recreational use of forests and disturbance of wildlife. A literature review. Forestry Commission.

Morgan, L., Protopopova, A., Birkler, R.I.D., Itin-Shwartz, B., Sutton, G.A., Gamliel, A., Yakobson, B., Raz, T., 2020. Human–dog relationships during the COVID-19 pandemic: booming dog adoption during social isolation. Humanit Soc Sci Commun 7, 1–11. https://doi.org/10.1057/s41599-020-00649-x

Natural England, 2018. Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA No. 001). Natural England.

Panter, C., Liley, D., Caals, Z., Saunders, P., Clarke, R., 2021. Urban development and the Dorset Heaths: long term analysis & evidence base review (No. 616). Report by Footprint Ecology for the Urban Heaths Partnership.

Panter, C., Saunders, P., 2020. Recreation use of the New Forest SPA/SAC/Ramsar: New Forest Vehicle Counts 2018/19 (Unpublished No. 499). Unpublished report by Footprint Ecology for Test Valley Council.

Rebolo-Ifrán, N., Grilli, M.G., Lambertucci, S.A., 2019. Drones as a Threat to Wildlife: YouTube Complements Science in Providing Evidence about Their Effect. Environmental Conservation 46, 205–210. https://doi.org/10.1017/S0376892919000080

Rérat, P., 2021. The rise of the e-bike: Towards an extension of the practice of cycling? Mobilities 16, 423–439. https://doi.org/10.1080/17450101.2021.1897236

Richardson, M., Cormack, A., McRobert, L., Underhill, R., 2016. 30 Days Wild: Development and Evaluation of a Large-Scale Nature Engagement Campaign to Improve Well-Being. PLOS ONE 11, e0149777. https://doi.org/10.1371/journal.pone.0149777

Ryan, L., 2012. Impacts of nearby development on ancient woodland – addendum. The Woodland Trust.

Sommer, K., 2020. Holidays at home - Camping and glamping as a part of domestic tourism: An overview and analysis of camping (and in particular luxury camping) as an alternative form of domestic tourism in the time of the coronavirus (Working Paper No. 6/2020). IUBH Discussion Papers - Tourismus & Hospitality.

Tyldesley, D., Chapman, C., 2013. The Habitats Regulations Handbook, November 2024 update. ed. DTA Publications.

Weitowitz, D.C., Panter, C., Hoskin, R., Liley, D., 2019. The effect of urban development on visitor numbers to nearby protected nature conservation sites. J Urban Ecol 5. https://doi.org/10.1093/jue/juz019

Appendix 1: Summary of European sites

Summary of European sites and their interest features. Links in the site column relate to the conservation objectives page on the Natural England website for each site. # in the interest features column denotes an interest feature for which the UK has a special responsibility. Qualifying features are drawn from the Natural England designated site view; descriptions reflect text on the designated sites view page or that used in other relevant documents (such as the site improvement plan).

European site	Qualifying features	Description
Avon Valley Ramsar	Gadwall, Anas strepera - Wintering Mixed floodplain habitats Wetland invertebrate assemblage Wetland plant assemblage	The site encompasses the lower reaches of the River Avon and its floodplain between Bickton and Christchurch. The River Avon displays wide fluctuations in water level and parts of the valley are regularly flooded in winter. The Avon valley has a greater range of habitats and a more diverse flora and fauna than any other chalk river in Britain. The valley includes one of the largest expanses of unimproved floodplain grassland in Britain, including extensive areas managed as hay meadow.
Avon Valley SPA	Bewick's swan, *Cygnus columbianus bewickii* - A037, nb Gadwall, *Mareca strepera* - A051, nb	See above Ramsar description.
Dorset Heathlands Ramsar	Fens and fen meadows (including Alkaline Fens, Molinia meadows, Calcareous Fens) Northern Atlantic wet heaths Southern Atlantic wet heaths Valley mires (and associated spring fed mires, bog pools, soakaways and transitions to swamp and saltmarsh) Wetland invertebrate assemblage Wetland plant assemblage	Extensive and fragmented, these heathland areas are centred around the estuary of Poole Harbour and are adjacent to the urban conurbation of Bournemouth and Poole. The heathland contains numerous examples of wet heath and acid valley mire, habitats that are restricted to the Atlantic fringe of Europe. These heath wetlands are among the best of their type in lowland Britain. There are also transitions to coastal wetland and fen habitat types. The wetland flora and fauna includes a large assemblage of nationally rare and scarce species, especially invertebrates.

European site	Qualifying features	Description
Dorset Heathlands SPA	A224(B) *Caprimulgus europaeus*: European Nightjar A246(B) *Lullula arborea*: Woodlark A302(B) *Sylvia undata*: Dartford Warbler A082(NB) *Circus cyaneus*: Hen Harrier A098(NB) *Falco columbarius*: Merlin	The Dorset heathlands is an extensive lowland heathland area in southern England. Formerly a single tract divided only by river valleys it is now fragmented. The heathlands comprise a wide range of different habitat types related to variation in soils, hydrology, water chemistry and land use history.
Dorset Heaths (Purbeck & Wareham) & Studland Dunes SAC	H4030 European dry heaths H2150# Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) H7230 Alkaline fens H2110 Embryonic shifting dunes H2190 Humid dune slacks H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) H4010 Northern Atlantic wet heaths with *Erica tetralix* H2120 Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") H3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) H7150 Depressions on peat substrates of the Rhynchosporion H4020# Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix* H7210# Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains H91D0# Bog woodland S1044 *Coenagrion mercuriale*: Southern damselfly S1166 *Triturus cristatus*: Great crested newt	See SPA text above.

European site	Qualifying features	Description
Dorset Heaths SAC	H4030 European dry heaths H7230 Alkaline fens H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) H4010 Northern Atlantic wet heaths with *Erica tetralix* H7150 Depressions on peat substrates of the Rhynchosporion H7210# Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains S1044 *Coenagrion mercuriale*: Southern damselfly S1166 *Triturus cristatus*: Great crested newt	See SPA text above.
Isle of Portland to Studland Cliffs SAC	H1210 Annual vegetation of drift lines H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) S1654 *Gentianella anglica*: Early Gentian	Jurassic and Cretaceous sea cliffs recognised as a World Heritage Site overlooking the English Channel in Dorset. The outstanding geology supports extensive swathes of calcareous grassland with early spider orchid and the endemic early gentian; sea cliff vegetation on hard rocks and a diversity of habitat on seepage rich slumping clays. A highly ephemeral drift line is present on sandy shingle throughout the site.
Isle of Wight Downs SAC	H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts H4030 European dry heaths H6210 Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*), (note that this includes the priority feature 'important orchid rich sites') S1654 Early gentian *Gentianella anglica*	The Isle of Wight Downs SAC is located at either end of the east-west running chalk spine of The Isle of Wight. In the west, it notably takes in the high exposed white chalk cliffs and cliff top grassland of West High and Tennyson Downs and the iconic Needles headland, and Ventnor Downs with their spectacular coastal views to the east. Chalk grassland is the dominant habitat typically supporting a very rich ecology and a number of rare species including often locally abundant Early Gentian, one of only a small number of endemic

European site	Qualifying features	Description
		plants to the British Isles. It is also noted as being exceptional for its diversity and abundances of butterflies.
Poole Harbour Ramsar	Criterion 1: The site is the best and largest example of a bar-built estuary with lagoonal characteristics (a natural harbour) in Britain. Criterion 2: The site supports two species of nationally rare plant and one nationally rare alga. There are at least three British Red data book invertebrate species. Criterion 3: The site includes examples of natural habitat types of community interest - Mediterranean and thermo Atlantic halophilous scrubs, in this case dominated by *Suaeda vera*, as well as calcareous fens with *Cladium mariscus*. Transitions from saltmarsh through to peatland mires are of exceptional conservation importance as few such examples remain in Britain. The site supports nationally important populations of breeding waterfowl including Common Tern, *Sterna hirundo* and Mediterranean Gull *Larus melanocephalus*. Over winter the site also supports a nationally important population of Avocet *Recurvirostra avosetta*.	Poole Harbour is a bar-built estuary covering an area of nearly 4000 hectares. The Harbour occupies a shallow depression in the acidic, tertiary deposits towards the south-western extremity of the Hampshire Basin and has been formed over the last 5000 years by a rise in sea level. The unusual micro-tidal regime means that a significant body of water is retained throughout the tidal cycle. The site therefore exhibits many of the characteristics of a lagoon. There are extensive intertidal mudflats supporting internationally important numbers of waterfowl in winter. These are fringed on the landward side by saltmarshes or reedbeds. The river valleys of the lower Frome and Piddle support grazing marsh which is also important for wintering waterfowl. Much of the catchment along the western and southern shores comprises the internationally important Dorset heathlands and there are unusual transitions from saltmarsh to valley mire. The Harbour is separated from Poole Bay by the internationally important Studland dunes and the site includes Littlesea, a large dune slack lake also important for wintering wildfowl.
Poole Harbour SPA	A026 *Egretta garzetta*; Little Egret (NB) A034 *Platalea leucorodia*; Eurasian Spoonbill (NB) A048 *Tadorna tadorna*; Common Shelduck (NB) A132 *Recurvirostra avosetta*; Pied Avocet (NB) A156 *Limosa limosa islandica*; Black-tailed Godwit (NB) A176 *Larus melanocephalus*; Mediterranean Gull (B)	Poole Harbour is a large natural harbour comprising of extensive tidal mudflats and saltmarshes, together with associated reedbeds, freshwater marshes and wetland grassland. It has a narrow entrance and a small tidal range and as a result, although classified as an estuary (several rivers flow into it) it has many of the qualities of a large lagoon.

European site	Qualifying features	Description
	A191 *Sterna sandvicensis*; Sandwich Tern (B) A193 *Sterna hirundo*; Common Tern (B) Waterbird assemblage	
River Avon SAC	H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation S1016 *Vertigo moulinsiana*: Desmoulin`s Whorl Snail S1095 *Petromyzon marinus*: Sea Lamprey S1096 *Lampetra planeri*: Brook Lamprey S1106 *Salmo salar*: Atlantic Salmon S1163 *Cottus gobio*: Bullhead	The River Avon SAC is one of the richest chalk rivers in Europe. It is important for its fish population, invertebrate, which include populations of Desmoulins Whorl Snail and its in-river plant community habitat as well as bankside habitats.
Solent and Dorset Coast SPA	A191 (B) *Sterna sandvicensis*; Sandwich Tern A193 (B) *Sterna hirundo*; Common Tern A195(B) *Sterna albifrons*: Little Tern	Proposals to classify this SPA were approved in 2020. The SPA encompasses coastal areas used by feeding terns.
Solent & Isle of Wight Lagoons SAC	H1150 Coastal lagoons	The Solent and Isle of Wight Lagoons SAC encompasses a series of coastal lagoons, including percolation, isolated and sluiced lagoons. The site includes eight lagoons in the marshes in the Keyhaven to Lymington area, one lagoon at Farlington Marshes in Langstone Harbour, four lagoons located behind the sea-wall at Bembridge Harbour and one lagoon at Gilkicker, near Gosport. Each lagoon has its own unique conditions with salinities varying from brackish to hypersaline and substrates ranging from soft mud to muddy sand with a high proportion of shingle. These sheltered conditions support a diverse fauna including large populations of three notable species: the nationally rare foxtail stonewort (*Lamprothamnium papulosum*), the nationally rare lagoon sand shrimp (*Gammarus insensibilis*) and the nationally scarce starlet sea anemone (*Nematostella vectensis*).

European site	Qualifying features	Description
Solent & Southampton Water Ramsar	Black-tailed godwit, Limosa limosa - Breeding Common tern, Sterna hirundo - Breeding Dark-bellied brent goose, Branta bernicla - Wintering Estuary Little tern, Sternula albifrons - Breeding Ringed plover, Charadrius hiaticula - Wintering Roseate tern, Sterna dougallii - Breeding Sandwich tern, Thalasseus sandvicensis - Breeding Sheltered channel between island/mainland Teal, Anas crecca - Wintering Waterbird assemblage - Wintering Wetland invertebrate assemblage Wetland plant assemblage	See SPA text below.
Solent & Southampton Water SPA	A616 (NB) Black-tailed godwit, *Limosa limosa islandica* A193 (B) Common tern, *Sterna hirundo* A675 (NB) Dark-bellied Brent goose, *Branta bernicla bernicla* A195 (B) Little tern, *Sterna albifrons* A176 (B) Mediterranean gull, *Ichthyaetus melanocephalus* A137 (NB) Ringed plover, *Charadrius h*iaticula A192 (B) Roseate tern, *Sterna dougallii* A191 (B) Sandwich tern, *Thalasseus sandvicensis* A704 (NB) Teal, *Anas crecca* Waterbird assemblage	The Solent and Southampton Water is located in one of the only major sheltered channels in Europe, lying between a substantial island (the Isle of Wight) and the mainland, on the south coast of England. It stretches from Hurst Spit to Hill Head across Hampshire, and on the north coast of the Isle of Wight from Yarmouth to Whitecliff Bay. This area is a complex major estuarine system consisting of coastal plain estuaries including the Yar, Medina, King's Quay Shore, and the Hamble. Bar-built estuaries including Newtown Harbour and Beaulieu also occupy the Special Protection Area (SPA). The Solent and its inlets are unique in Britain and Europe for their unusual tidal regime, including double tides and long periods of tidal stand at high and low tide. The Solent and Southampton Water is composed of extensive intertidal mudflats and sandbanks, inter- and subtidal rock, areas of saltmarsh, coastal

European site	Qualifying features	Description
		lagoons, coastal reed beds, shingle banks, and grazing marsh. Estuarine sediments within the site support rich populations of invertebrates that provide an important food source for wintering birds. The Solent as a whole exceeds 90,000 waders annually and the mudflats, coastal lagoons, shingle and saltmarsh provide vital feeding and roosting grounds for these. The shingle banks also provide important breeding grounds for terns. The Solent also supports 10-13% of world's population of dark-bellied Brent geese, and 30% of the UK population. Besides using the mudflats and grazing marshes to feed, they also rely on farmland with cereals and pasture, and amenity grasslands outside the SPA boundary.
Solent Maritime SAC	H1110 Sandbanks which are slightly covered by sea water all the time H1130 Estuaries H1140 Mudflats and sandflats not covered by seawater at low tide H1150 Coastal lagoons H1210 Annual vegetation of drift lines H1220 Perennial vegetation of stony banks H1310 Salicornia and other annuals colonising mud and sand H1320 Spartina swards (*Spartinion maritimae*) H1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) H2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('White dunes') S1016 Desmoulin's whorl snail, *Vertigo moulinsiana*	The Solent Maritime SAC is a complex site encompassing a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their unusual tidal regime, including double tides and long periods of tidal stand at high and low tide. As a result, the Solent Maritime SAC is a unique suite of functionally linked estuaries and dynamic marine and estuarine habitats. The site has the largest number of small estuaries in the tightest cluster anywhere in Great Britain, with examples of coastal plain estuaries (Yar, Medina, King's Quay Shore and Hamble) and bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). It is located in one of the only major sheltered channels in Europe, lying between a substantial island (the Isle of Wight) and the mainland. Sediment habitats within the site include extensive areas of intertidal mudflats and sandflats, often supporting eelgrass (*Zostera* species), subtidal sandbanks, saltmarsh and natural shoreline transitions such as drift line vegetation. The

European site	Qualifying features	Description
		Solent Maritime SAC is of particular interest as it is the only site to support all four species of cordgrass (*Spartina*) found in the UK, including the rare native small cordgrass (*Spartina maritima*). The Solent Maritime SAC also includes a number of coastal lagoons, sand dunes at East Head and at the time of designation supported a population of the rare Desmoulin's whorl snail (*Vertigo moulinsiana*).
South Wight Maritime SAC	H1170 Reefs H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts H8330 Submerged or partially submerged sea caves	The South Wight Maritime SAC runs the full length of the south coast of the Isle of Wight, from the impressive sea stacks of the Needles in the west to Bembridge Point in the east. South Wight Maritime was designated as a SAC in recognition of its outstanding reef marine habitats and pristine sea cave systems. This European Marine Site is a dynamic site that boasts a variety of different types of reef including chalk, limestone, sandstone, clay/mudstone, greensand bedrock and boulder reef. South Wight Maritime SAC is also the only known location of subtidal chalk caves in the UK. These sea caves are of ecological importance with many hosting algal communities which are restricted to this type of habitat. The site's geological variety continues landward with Cretaceous hard cliffs, semi-stable soft cliffs and mobile soft cliffs featuring along its length. The exposed chalk cliff tops to the west support important assemblages of nationally rare lichens, including *Fulgensia fulgens*. The vegetation communities within the site include a mixture of acidic and mesotrophic grasslands, with some scrub and maritime species such as thrift (*Armeria maritima*). These cliffs are minimally affected by sea defence works and

European site	Qualifying features	Description
		together they form one of the longest lengths of naturally developing soft cliffs on the UK coastline.
Studland to Portland SAC	H1170 Reefs	The site is important for the outstanding diversity of its Annex 1 reef habitats. The site is situated on the south Dorset coast and extends from the Isle of Portland in the west to Swanage Bay in the east. Bedrock reef is the dominant reef type throughout the Studland to Portland SAC. It occurs in a variety of complex geomorphologic forms, including exposed chalk bedrock; exposed shales and clays; limestone and cementstone ledges; flat bedrock; areas of fragmented rock; and rugged limestone boulders providing deep gullies and overhangs This mosaic of reef habitats support a diverse range of marine life including cup corals, sponges, anemones, nudibranchs and hydroids. Dense mussel Mytilus edulis beds are found to occur on bedrock associated with strong currents off the eastern side of Portland Bill. Mytilus edulis also occurs in high numbers in the infralittoral zones of the eastern reefs amongst kelp forests.
St Albans Head to Durlston Head SAC	H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) S1304 *Rhinolophus ferrumequinum*: Greater Horseshoe Bat S1654 *Gentianella anglica*: Early Gentian	Jurassic and Cretaceous sea cliffs recognised as a World Heritage Site overlooking the English Channel in Dorset. The outstanding geology supports extensive swathes of calcareous grassland with early spider orchid and the endemic early gentian; sea cliff vegetation on hard rocks and a diversity of habitat on seepage rich slumping clays. Sea caves and mine adits, a legacy of the stone quarrying industry, have created habitat for the greater horseshoe bat and a highly ephemeral drift line is present on sandy shingle throughout the site.

European site	Qualifying features	Description
The New Forest Ramsar	Criterion 1: Valley mires and wet heaths are found throughout the site and are of outstanding scientific interest. The mires and heaths are within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. This is the largest concentration of intact valley mires of their type in Britain. Criterion 2: The site supports a diverse assemblage of wetland plants and animals including several nationally rare species. Seven species of nationally rare plant are found on the site, as are at least 65 British Red Data Book species of invertebrate. Criterion 3: The mire habitats are of high ecological quality and diversity and have undisturbed transition zones. The invertebrate fauna of the site is important due to the concentration of rare and scare wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity of southern England.	The New Forest is an area of semi-natural vegetation including valley mires, fens and wet heath within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. The habitats present are of high ecological quality and diversity with undisturbed transition zones. The suite of mires is regarded as the *locus classicus* of this type of mire in Britain. Other wetland habitats include numerous ponds of varying size and water chemistry including several ephemeral ponds and a network of small streams mainly acidic in character which have no lowland equivalent in the UK. The plant communities in the numerous valleys and seepage step mires show considerable variation, being affected especially by the nutrient content of groundwater. In the most nutrient-poor zones, *Sphagnum* bog-mosses, Cross-Leaved Heath, Bog Asphodel, Common Cottongrass and similar species predominate. In more enriched conditions the communities are more fen-like.
The New Forest SPA	A072(B) *Pernis apivorus*: European honey-buzzard A082(NB) *Circus cyaneus*: Hen Harrier A099(B) *Falco subbuteo*: Eurasian Hobby A224(B) *Caprimulgus europaeus*: European Nightjar A246(B) *Lullula arborea*: Woodlark A302(B) *Sylvia undata*: Dartford Warbler A314(B) *Phylloscopus sibilatrix*: Wood Warbler	The New Forest is a large and complex ecosystem and one of the largest remaining relatively wild areas in the South of England attracting enormous numbers of visitors each year. The SPA supports an extensive and complex mosaic of habitats which hold internationally important populations of breeding and over-wintering birds.
The New Forest SAC	H7140 Transition mires and quaking bogs H7150 Depressions on peat substrates of the Rhynchosporion H3110 Oligotrophic waters containing very few minerals of sandy	The New Forest is a large and complex ecosystem and one of the largest remaining relatively wild areas in the South of England attracting enormous numbers of visitors each year. The New Forest SAC supports an extensive and

European site	Qualifying features	Description
	plains (*Littorelletalia uniflorae*) H3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* H4010 Northern Atlantic wet heaths with *Erica tetralix* H4030 European dry heaths H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) H7230 Alkaline fens H9120 Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion roboripetraeae* or *Ilici-Fagenion*) H9130 *Asperulo-Fagetum* beech forests H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains H91D0# Bog woodland H91E0# Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) S1044 *Coenagrion mercuriale*: Southern damselfly S1083 *Lucanus cervus*: Stag beetle S1166 *Triturus cristatus*: Great crested newt	complex mosaic of habitats including wet and dry heaths and associated bogs and mires, wet and dry grasslands, ancient pasture woodlands, frequent permanent and temporary ponds and a network of streams and rivers. These habitats support an exceptional variety of flora and fauna including notable species such as southern damselfly, stag beetle and great crested newt.