

REPORT N° 62103315-004

BUCKINGHAMSHIRE LOCAL TRANSPORT PLAN 4

HABITATS REGULATIONS ASSESSMENT
SCREENING REPORT

PUBLIC

MARCH 2016

BUCKINGHAMSHIRE LOCAL TRANSPORT PLAN 4

HABITATS REGULATIONS ASSESSMENT SCREENING REPORT

Buckinghamshire County Council

**Final Issue
Public**

Project no: 62103315-004
Date: March 2016

WSP | Parsons Brinckerhoff

The Forum
Barnfield Road
Exeter, EX1 1QR

Tel: +44 (0) 1392 229036
www.wspgroup.com
www.pbworld.com

QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks	Draft	Final	Final	
Date	09 February 2016	16 February 2016	11 March 2016	
Prepared by	Ursula Digby	Ursula Digby	Ursula Digby	
Checked by	Charles Morrison	Charles Morrison	Charles Morrison	
Authorised by	Paul McGimpsey	Paul McGimpsey	Paul McGimpsey	
Project number	62103315-004	62103315-004	62103315-004	
Report number	62103315-004	62103315-004	62103315-004	
File reference	62103315-004	62103315-004	62103315-004	

TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	BACKGROUND.....	1
1.2	REPORT FRAMEWORK.....	2
2	HABITATS DIRECTIVE AND HABITATS REGULATION ASSESSMENT	4
2.1	HABITATS REGULATIONS ASSESSMENT.....	4
2.2	STAGES OF HABITATS REGULATIONS ASSESSMENT.....	5
2.3	STEPS IN SCREENING.....	5
3	NATURA 2000 AND RAMSAR SITES	6
3.1	ZONE OF INFLUENCE	6
3.2	IDENTIFICATION OF RELEVANT SITES.....	6
4	SCREENING ASSESSMENT	12
4.1	STEP 1: THE STRATEGY AND MANAGEMENT OF EUROPEAN SITES	12
4.2	STEP 2: DESCRIPTION OF BUCKINGHAMSHIRE LTP4.....	12
4.3	STEP 3: INITIAL SCOPING FOR IMPACTS AND EFFECTS ON NATURA 2000 SITES.....	20
4.4	IN COMBINATION IMPACTS AND EFFECTS ON NATURA 2000 AND RAMSAR SITES).....	22
4.5	STEP 4: ASSESSMENT OF THE SIGNIFICANCE OF EFFECTS ON NATURA 2000 SITES.....	27

TABLES

FIGURE 1-1	LTP4 STRATEGY AND IMPLEMENTATION DOCUMENTS	2
TABLE 3-1	NATURA 2000 AND RAMSAR SITES LOCATED WITHIN ZOI FOR BUCKINGHAMSHIRE LTP4 (COUNTY BOUNDARY)	7
TABLE 3-2	NATURA 2000 AND RAMSAR SITES LOCATED WITHIN ZOI FOR BUCKINGHAMSHIRE LTP4 (2 KM BUFFER)	9
TABLE 3-3	NATURA 2000 AND RAMSAR SITES LOCATED WITHIN ZOI FOR BUCKINGHAMSHIRE LTP4 (BAT SACS WITHIN 30 KM)	11
TABLE 4-1	SUMMARY OF BUCKINGHAMSHIRE LTP4 POLICIES	12
TABLE 4-2	LTP4 POLICIES SCREENED OUT FROM FURTHER ASSESSMENT	20
TABLE 4-3	POTENTIAL IMPACTS AND EFFECTS ON NATURA 2000 AND RAMSAR SITES AS A RESULT OF LTP4	21
TABLE 4-4	POTENTIAL IMPACTS AND LIKELY SIGNIFICANT EFFECTS	23

APPENDICES

APPENDIX A FIGURES

APPENDIX A-1 FIGURE 3.1 NATURA 2000 AND RAMSAR SITES WITHIN ZOI

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 The Local Transport Act (2000)¹ as amended by the Local Transport Act (2008)² requires Buckinghamshire County Council to produce a Local Transport Plan. The fourth Buckinghamshire Local Transport Plan (LTP4) proposes an approach for addressing current and future transport issues in the county over the period mid 2016 – 2036.

1.1.2 In addition to the statutory responsibilities required by the Local Transport Acts (2000 and 2008), the LTP4 sets out how transport can play its part in realising the council's vision to make Buckinghamshire a '*great place to live and work, maintaining and enhancing its special environment, helping its people and businesses thrive and grow to give us one of the strongest and most productive economies in the country*'.

1.1.3 The plan covers all modes of transport and covers the period 2016 - 2036 with the following objectives:

Objective 1: Connected Buckinghamshire - Provide a well-connected, efficient and reliable transport network which links to key national and international destinations helping Buckinghamshire's residents and economy to flourish while capitalising on external investment opportunities.

Objective 2: Growing Buckinghamshire - To secure good road, public transport, cycle and walking infrastructure and service provision, working in partnership with local businesses, the community and district councils through a range of initiatives and taking advantage of new and emerging technologies to meet the (current and future) needs of residents as Buckinghamshire grows.

Objective 3: Healthy, Safe and Sustainable Buckinghamshire - Allow residents to improve their quality of life and health, by promoting sustainable travel choices and access to opportunities that improve health. Ensure transport systems are accessible by all, safe and allow people to make the most of Buckinghamshire whilst protecting its special environments.

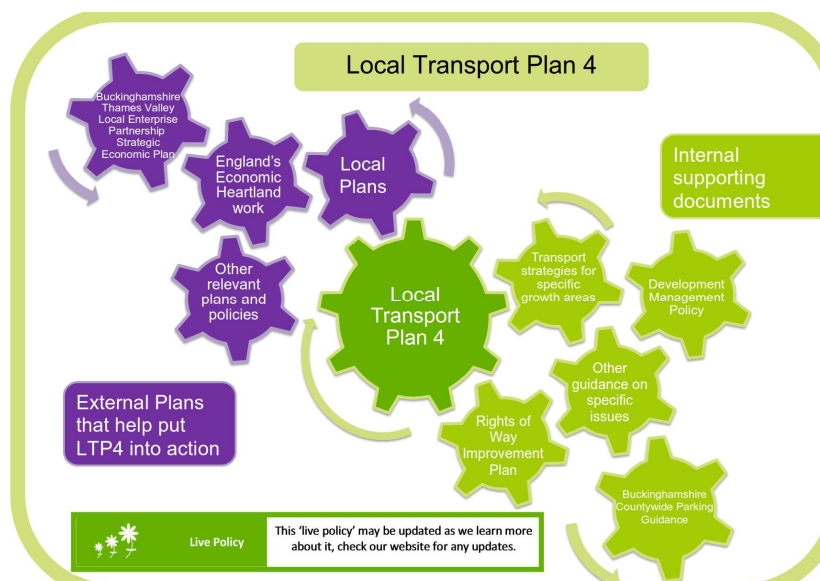
Objective 4: Empowered Buckinghamshire - Allow everybody to access the educational, work and social opportunities they need to grow. Increase opportunities for residents to support themselves and their communities by enabling local transport solutions.

1 Transport Act (2000): <http://www.legislation.gov.uk/ukpga/2000/38/contents>

2 Local Transport Act (2008): <http://www.legislation.gov.uk/ukpga/2008/26/contents>

- 1.1.4 A critical role of the LTP4 is to provide the necessary transport, infrastructure and connectivity improvements to enable Buckinghamshire County Council's vision to be realised. 19 policies have been identified, which set out the high-level approach to transport in Buckinghamshire. Additional documents will be developed to support LTP4 as the local planning context develops.
- 1.1.5 LTP4 is Buckinghamshire County Council's highest level of transport policy. Supplementary, more detailed documents, which will provide further policy and guidance/implementation plans will be produced at a later stage (refer to Figure 1.1 for process).

Figure 1-1 LTP4 Strategy and Implementation Documents



- 1.1.6 Under the requirements of European Council Directive 92/43/EEC 'the Habitats Directive'³ and Council Directive 79/409/EEC 'the Wild Birds Directive'⁴ it is necessary to consider whether Buckinghamshire LTP4 may have likely significant effects upon areas of nature conservation importance designated/classified under the Directives. Should likely significant effects be identified it would be necessary to further consider the impacts of Buckinghamshire LTP4 by way of an 'Appropriate Assessment'. This process of assessment under the requirements of the Habitats Directive (as transposed into UK legislation by the Conservation of Habitats and Species Regulations 2010⁵: 'the Habitat Regulations') is described within this document as Habitat Regulations Assessment (HRA).

1.2 REPORT FRAMEWORK

- 1.2.1 This HRA screening report has been produced as part of a Strategic Environmental Assessment (SEA) for Buckinghamshire LTP4. This screening assessment, and any subsequent Appropriate Assessment that may be required, has been prepared in parallel to a Strategic Environmental Assessment (SEA) and will ensure that all HRA-related considerations are fully integrated into Buckinghamshire LTP4 as it is developed.

3 Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:NOT>

4 Council Directive 79/409/EEC on the conservation of wild birds: http://europa.eu/legislation_summaries/environment/nature_and_biodiversity/ev0024_en.htm

5 The Conservation of Habitats and Species Regulations 2010/490: <http://www.legislation.gov.uk/ukSI/2010/490/contents/made>

1.2.2 This report details:

- The HRA process and methodology for assessment;
- The relevant Natura 2000 and Ramsar sites within the zone of influence for Buckinghamshire LTP4;
- The challenges of Buckinghamshire LTP4 and how these may impact upon relevant Natura 2000 and Ramsar sites;
- The likely significant effects of Buckinghamshire LTP4; and
- Further considerations for Buckinghamshire LTP4.

1.2.3 The LTP4 will provide an overarching framework from which a series of more detailed policies and plans will be produced. It should be noted that this HRA screening assessment has been based solely upon the Buckinghamshire LTP4 strategy and does not include a detailed analysis of any projects that may arise as a result of the strategy.

2 HABITATS DIRECTIVE AND HABITATS REGULATION ASSESSMENT

2.1 HABITATS REGULATIONS ASSESSMENT

- 2.1.1 Under Article 6 of the Habitats Directive an assessment is required where a plan or project, not directly connected with or necessary to the management of a Natura 2000 site, either individually or in combination with other plans or projects, is likely to have a significant effect upon that site. Natura 2000 is a network of areas designated to conserve natural habitats and species that are rare, endangered, vulnerable or endemic within the European community. This includes Special Areas of Conservation (SAC) designated under the habitats directive for their habitats and/or species of European importance and Special Protection Areas (SPA) classified under the conservation of Wild Birds Directive for rare, vulnerable and regularly occurring migratory bird species and internationally important wetlands. In addition, it is a matter of law that candidate SAC (cSAC) are considered in this process, although potential SACs (pSACs), which are proposed in the UK but which are yet to be submitted to the European Commission are not included. It is a matter of government policy that sites designated under the 1971 Ramsar convention for their internationally important wetlands (commonly known as Ramsar sites) and potential SPAs (pSPAs) are considered.
- 2.1.2 The requirements of the habitats directive are transposed into English law out to territorial water limits (12 nautical miles) by means of the Conservation of Habitats and Species Regulations 2010. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007⁶ transpose the Habitats Directive in the UK offshore marine area (beyond 12 nautical miles). European offshore marine sites require consideration in the HRA process.
- 2.1.3 Paragraph 3, Article 6 of the Habitats Directive states that:
- 'any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives...the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public'.*
- 2.1.4 Paragraph 4, Article 6 of the Habitats Directive states that:
- 'if, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest... the member state shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected...'*

6 SI 2007/1842 - http://www.opsi.gov.uk/si/si2007/uksi_20071842_en_1

2.1.5 These requirements are implemented in the UK through Regulations 61, 62, 66 and 67 of the Habitat Regulations.

2.2 STAGES OF HABITATS REGULATIONS ASSESSMENT

2.2.1 The Commission guidance on the Habitats Directive sets out four distinct stages for assessment under the directive⁷:

1. Stage 1: Screening: the process which initially identifies the likely impacts upon a Natura 2000 site of a plan or project, either alone or in combination with other plans or projects, and considers whether these impacts are likely to be significant.
2. Stage 2: Appropriate Assessment: the detailed consideration of the impact on the integrity of the Natura 2000 sites of the plan or project, either alone or in combination with other plans or projects, with respect to the site's conservation objectives and its structure and function. This is to determine whether there will be adverse effects on the integrity of the site. Specific guidance on this stage is provided in habitat regulations guidance note 1⁸.
3. Stage 3: Assessment of Alternative Solutions: the processes that examine alternative ways of achieving the objectives of the plans or projects that avoid adverse impacts on the integrity of the Natura 2000 site.
4. Stage 4: Assessment where no Alternative Solutions Exist and where Adverse Impacts Remain: an assessment of whether the development is necessary for Imperative Reasons of Overriding Public Interest (IROPI) and, if so, of the compensatory measures needed to maintain the overall coherence of the Natura 2000 network.

2.2.2 This report presents the findings of the Screening Assessment undertaken as part of Stage 1 of the HRA process to establish whether or not the likely impacts of Buckinghamshire LTP4 could have significant effects upon Natura 2000 and Ramsar sites. As this HRA assessment is of a strategic plan level rather than of specific projects, the information presented within this assessment is high-level and as such differs in the level of detail that might be presented for project level HRA screening exercises. Buckinghamshire LTP4 SEA has assumed a 20 year strategy. As a result of this, and the size of the area covered, any project brought forward under Buckinghamshire LTP4 may still require its own HRA assessment and the assessment documented in this report does not preclude the need for project-level assessment at a later stage.

2.3 STEPS IN SCREENING

2.3.1 The European Commission guidance recommends that screening should fulfil the following steps:

1. Determine whether the plan is directly connected with or necessary for the management of Natura 2000 sites;
2. Describe the plan and describe and characterise any other plans or projects which, in combination, have the potential for having significant effects on Natura 2000 sites;
3. Identify the potential effects on Natura 2000 sites; and
4. Assess the likely significance of any effects on Natura 2000 sites.

⁷ Assessment of plans and projects significantly affecting Natura 2000 sites (European Commission, 2001)

⁸ English Nature (2004). Habitat Regulations Guidance Note #1: The Appropriate Assessment (Regulation 48), The Conservation (Natural Habitats &c.) Regulations, 1994.

3 NATURA 2000 AND RAMSAR SITES

3.1 ZONE OF INFLUENCE

- 3.1.1 The Zone of Influence (ZoI) is defined by the potential effects arising from the project or plan and the available pathways for those effects to reach and affect interest features of Natura 2000 and Ramsar sites.
- 3.1.2 In order to identify all sites where potential direct, indirect and in-combination impacts to Natura 2000 and Ramsar sites could reasonably be considered possible, an initial buffer of 2 km around Buckinghamshire county boundary was established. This buffer was extended accordingly where there were potential hydrological connections present and up to 30 km where bats are qualifying features of a SAC, cSAC or pSAC. This approach follows Highways Agency (HA) Design Manual for Roads and Bridges⁹ (DMRB) guidance and provides a contextual framework for the consideration of impacts.
- 3.1.3 Furthermore, consideration was given to Natural England Impact Risk Zones (IRZ) for corresponding Sites of Special Scientific Interest (SSSI)¹⁰.

3.2 IDENTIFICATION OF RELEVANT SITES

- 3.2.1 One SPA and five SACs were found within the ZoI (refer to Table 3.1 and Figure 3.1):
- Burnham Beeches SAC;
 - Aston Rowant SAC
 - Chilterns Beechwoods SAC,
 - Windsor Forest and Great Park SAC,
 - South West London Waterbodies SPA (located just beyond the 2 km ZoI but included due to potential hydrological connectivity),
 - Mole Gap to Reigate Escarpment SAC
- 3.2.2 Site data is summarised in Tables 3.1 – 3.3. Data were collated using information contained within Natura 2000 data forms held by the Joint Nature Conservation Council (JNCC)¹¹. Site vulnerability statements were informed by site Conservation Objectives¹², SSSI condition reviews and Natural England's 'Views about Management' (VAM)¹³.

9 Standards for Highways, DMRB, Volume 11, Section 4, HD4409

10 Zones around each SSSI identified by Natural England according to the particular sensitivities of the features for which it is notified and types of development that have the potential to have adverse impacts.

11 Joint Nature Conservation Committee (JNCC: www.jncc.gov.uk) accessed January 2016

12 Natural England Conservation Objectives compiled September 2010

13 Natural England Condition of SSSI Units, compiled 01 August 2010:
<http://www.sssi.naturalengland.org.uk/Special/search>

Table 3-1 Natura 2000 and Ramsar Sites Located within Zol for Buckinghamshire LTP4 (County Boundary)

SITE NAME, DESIGNATION, SIZE AND CODE AND CONSERVATION OBJECTIVES	QUALIFYING FEATURE / INTEREST FEATURE		SITE VULNERABILITIES / KEY ISSUES AND THREATS TO INTEGRITY
	HABITAT	SPECIES	
<p>Burnham Beeches SAC, (383.71Ha), UK0030034</p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats; The structure and function (including typical species) of qualifying natural habitats; and The supporting processes on which qualifying natural habitats rely. 	<p>H9120. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion robur-petraeae</i> or <i>Ilici-Fagenion</i>); Beech forests on acid soils</p>	N/a	<p>Nitrogen deposition (air pollution) could result in composition changes over time and as such is a key threat.</p> <p>Veteran trees are vulnerable to damage caused by public access and disturbance.</p> <p>Habitat fragmentation is also a key threat due to pressure for new housing development the vicinity of the SAC potentially isolating the site from surrounding countryside.</p> <p>The negative impact of deer on woodland/ground flora composition and tree reproduction in the long term is a key threat. In addition, a declining number of veteran trees is having significant impact on habitat availability for specialised saproxylic invertebrates.</p> <p>Invasive species are a key threat - control measures for Oak processionary moth could pose a threat to native invertebrate populations. Continued control measures required for Rhododendron, as it acts as host for the pathogen causing sudden oak death (which also affects beech).</p>
<p>Aston Rowant SAC, (124.89 Ha), UK0030082</p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats; The structure and function (including typical species) of qualifying natural habitats; and The supporting processes on which 	<p>H5130. <i>Juniperus communis</i> formations on heaths or calcareous grasslands; Juniper on heaths or calcareous grasslands</p> <p>H9130. <i>Asperulo-Fagetum</i> beech forests; Beech forests on neutral to rich soils</p>	N/a	<p>A key threat is the conservation of the Juniper due to its reproduction on present day lowland sites.</p> <p>Habitat fragmentation and increasing isolation of juniper populations is a key threat to the maintenance of self-sustaining populations in the long-term.</p> <p>The negative impact of deer on woodland/ground flora composition and tree reproduction in the long term is a key threat.</p> <p>Conflicting conservation objectives between juniper management and the use of grazing (incompatible with juniper establishment) across the site is a key threat.</p> <p>The potential of disease (<i>Phytophthora austrocedrae</i>) is a key threat to re-establishment programmes for juniper.</p> <p>Nitrogen deposition (air pollution) could result in composition</p>

SITE NAME, DESIGNATION, SIZE AND CODE AND CONSERVATION OBJECTIVES	QUALIFYING FEATURE / INTEREST FEATURE		SITE VULNERABILITIES / KEY ISSUES AND THREATS TO INTEGRITY
	HABITAT	SPECIES	
qualifying natural habitats rely.			changes over time and as such is a key threat.
<p>Chilterns Beechwoods SAC, (1285.86 Ha), UK0012724</p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and, • The distribution of qualifying species within the site. 	<p>H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>); Dry grasslands and scrublands on chalk or limestone</p> <p>H9130. <i>Asperulo-Fagetum</i> beech forests; Beech forests on neutral to rich soils</p>	<p>S1083. <i>Lucanus cervus</i> (Stag beetle)</p>	<p>A key threat is the impact of historic management and climate change on woodland regeneration and species composition caused by.</p> <p>The negative impact of deer on woodland/ground flora composition and tree reproduction in the long term is a key threat.</p> <p>A key threat the management of stag beetle, and its habitat, is the lack species recording and monitoring, which is causing changes in species distributions.</p> <p>Invasive species (Grey squirrels <i>Sciurus carolinensis</i> and edible dormouse <i>Glis glis</i>) are potentially a key threat to natural tree regeneration.</p> <p>Box blight has been observed at Ellesborough and Kimble Warrens SSSI which represent the rare habitat type of box-dominated woodland. As such diseases are a key threat.</p> <p>Removal of dead wood is a key threat due to impact in saproxylic invertebrate fauna, whether by the public or in the interests of health and safety, and tidiness.</p> <p>Nitrogen deposition (air pollution) could result in composition changes over time and as such is a key threat.</p>

Table 3-2 Natura 2000 and Ramsar Sites Located within Zol for Buckinghamshire LTP4 (2 km Buffer)

SITE NAME, DESIGNATION, SIZE AND CODE AND CONSERVATION OBJECTIVES	QUALIFYING FEATURE / INTEREST FEATURE		SITE VULNERABILITIES / KEY ISSUES AND THREATS TO INTEGRITY
	HABITAT	SPECIES	
<p>Windsor Forest and Great Park SAC, (1680.18 Ha), UK0012586</p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species; The structure and function (including typical species) of qualifying natural habitats; The structure and function of the habitats of qualifying species; The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; The populations of qualifying species; and The distribution of qualifying species within the site. 	<p>H9120. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrublayer (<i>Quercion robur-petraeae</i> or <i>Ilici-Fagenion</i>); Beech forests on acid soils</p> <p>H9190. Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains; Dry oak-dominated woodland</p>	<p>S1079. <i>Limoniscus violaceus</i> (Violet click beetle)</p>	<p>A key threat is the loss of beech forest habitat and reduced habitat for the violet click beetle due to the loss of ancient/veteran beech trees.</p> <p>The loss of ancient/veteran oak trees is a key threat to Old acidophilous oak woods habitat and associated flora (including fungi) and fauna.</p> <p>Invasive species are a key threat such as oak processionary moth, (causing loss of ancient oaks), Turkey oak (impacts on the natural regeneration potential of native oak) and Rhododendron (impacts on scrub /grassland /flower rich supporting habitats of saproxylic species)</p> <p>Disease of the native oak is a key threat though it is uncertain how significant this could be for the ancient oak population.</p> <p>Nitrogen deposition (air pollution) could result in composition changes over time and as such is a key threat.</p>
<p>South West London Waterbodies SPA, UK9012171 (825.1 Ha)</p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> The extent and distribution of the 	N/a	<p>Qualifying Fauna –</p> <p>Northern shoveler (<i>Anas clypeata</i>)</p> <p>Gadwall (<i>Anas strepera strepera</i>)</p> <p>Noteworthy Fauna –</p>	<p>A key threat is impacts of public access/disturbance on wintering gadwall and shoveler and loss of suitable habitat through recreational management.</p> <p>Changes in distributions of gadwall and shoveler due to offsite factors are a key threat. Wetland and terrestrial habitat outside the SPA (more than 50 waterbodies) is making a significant contribution to sustaining the SPA population and there are specified non-designated sites that are unofficially recognised locally as supporting the SPA population.</p>

SITE NAME, DESIGNATION, SIZE AND CODE AND CONSERVATION OBJECTIVES	QUALIFYING FEATURE / INTEREST FEATURE		SITE VULNERABILITIES / KEY ISSUES AND THREATS TO INTEGRITY
<p>habitats of the qualifying features;</p> <ul style="list-style-type: none"> The structure and function of the habitats of the qualifying features; The supporting processes on which the habitats of the qualifying features rely; The population of each of the qualifying features; and, The distribution of the qualifying features within the site. 	HABITAT	SPECIES	<p>Invasive Species are a key threat. Infestations of <i>Crassula helmsii</i> reduce the invertebrate food of gadwall and shoveler. Egyptian geese will potentially compete with gadwall and shoveler for food and habitat resources.</p> <p>Natural changes to site conditions due to the inevitable maturation of gravel pits is a key threat as it alters roosting and feeding provision in terms of bankside vegetation, water chemistry and aquatic biodiversity.</p> <p>Fish stocking is a key threat as stocking of fish for recreation angling negatively impacts upon SPA bird populations.</p> <p>A key threat is inappropriate weed control as control or removal of waterweed for watersports potentially impacts upon the availability of food for gadwall and shoveler.</p>
		<p>Great crested grebe (<i>Podiceps cristatus cristatus</i>)</p> <p>Great cormorant (<i>Phalacrocorax carbo carbo</i>)</p> <p>Tufted duck (<i>Aythya fuligula</i>)</p> <p>Black-necked grebe (<i>Podiceps nigricollis nigricollis</i>)</p> <p>Smew (<i>Mergellus albellus</i>)</p>	

Table 3-3 Natura 2000 and Ramsar Sites Located within Zol for Buckinghamshire LTP4 (Bat SACs within 30 km)

SITE NAME, DESIGNATION, SIZE AND CODE AND CONSERVATION OBJECTIVES	QUALIFYING FEATURE / INTEREST FEATURE		SITE VULNERABILITIES / KEY ISSUES AND THREATS TO INTEGRITY
	HABITAT	SPECIES	
<p>Mole Gap to Reigate Escarpment SAC UK0012804 (887.68 Ha) 26km from Buckinghamshire</p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site. 	<p>H4030. European dry heaths</p> <p>H5110. Stable xerothermophilous formations with <i>Buxus sempervirens</i> on rock slopes (<i>Berberidion p.p.</i>); Natural box scrub</p> <p>H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>) (important orchid sites); Dry grasslands and scrublands on chalk or limestone (important orchid sites)*</p> <p>H9130. <i>Asperulo-Fagetum</i> beech forests; Beech forests on neutral to rich soils</p> <p>H91J0. <i>Taxus baccata</i> woods of the British Isles; Yew-dominated woodland*</p>	<p>S1166. Great crested newt (<i>Triturus cristatus</i>)</p> <p>S1323. Bechstein`s bat (<i>Myotis bechsteinii</i>)</p>	<p>Disease is a key threat with box blight spreading and affecting SAC feature 'stable box scrub on steep chalk slopes' (only native site for this feature).</p> <p>Scrub is encroaching onto the chalk grassland, as such inappropriate scrub control is a key threat.</p> <p>A key threat is change in land management as to maintain a species-rich sward and its associated insects and other invertebrates, chalk grasslands require active management, which some parts of the site do not have appropriate active management.</p> <p>Public access/disturbance is a key threat as increasing pressure by increased numbers of visitors on protected sites and disturbance on the species can become damaging.</p> <p>Nitrogen deposition (air pollution) could result in composition changes over time and as such is a key threat.</p>

* Priority natural habitats or species - Some of the natural habitats and species listed in the Habitats Directive and for which SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Directive and the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Directive.

4 SCREENING ASSESSMENT

4.1 STEP 1: THE STRATEGY AND MANAGEMENT OF EUROPEAN SITES

4.1.1 This stage considers whether the Buckinghamshire LTP4 is directly connected with or necessary to the management of the Natura 2000 sites listed. Within this context 'directly' means that the plan is solely conceived for the conservation management of a site or group of sites and 'management' refers to the management measures required in order to maintain in favourable condition the features for which the Natura 2000 site has been designated.

4.1.2 The Buckinghamshire LTP4 is neither directly connected with, nor necessary for, the management of any of the Natura 2000 sites listed. As such it is clear that further consideration of the plan by way of a HRA screening assessment is required.

4.2 STEP 2: DESCRIPTION OF BUCKINGHAMSHIRE LTP4

4.2.1 The LTP4 sets out how transport can realise the following objectives of Buckinghamshire County Council over the period 2016 - 2036:

Objective 1: Connected Buckinghamshire - Provide a well-connected, efficient and reliable transport network which links to key national and international destinations helping Buckinghamshire's residents and economy to flourish while capitalising on external investment opportunities.

Objective 2: Growing Buckinghamshire - To secure good road, public transport, cycle and walking infrastructure and service provision, working in partnership with local businesses, the community and district councils through a range of initiatives and taking advantage of new and emerging technologies to meet the (current and future) needs of our residents as Buckinghamshire grows.

Objective 3: Healthy, Safe and Sustainable Buckinghamshire - Allow residents to improve their quality of life and health, by promoting sustainable travel choices and access to opportunities that improve health. Ensure transport systems are accessible by all, safe and allow people to make the most of Buckinghamshire whilst protecting its special environments.

Objective 4: Empowered Buckinghamshire - Allow everybody to access the educational, work and social opportunities they need to grow. Increase opportunities for residents to support themselves and their communities by enabling local transport solutions.

4.2.2 Nineteen policies are proposed to achieve the above-described objectives and set out the high-level approach to transport in Buckinghamshire. These are identified in Table 4.1.

Table 4-1 SUMMARY OF BUCKINGHAMSHIRE LTP4 POLICIES

POLICY	DESCRIPTION
Policy 1 – Managing demand for our services – We will work to deliver our services in the most efficient way: to reduce the need to travel; and to help reduce demand for Council services.	To manage demand for services, work with partners to: <ul style="list-style-type: none"> - Decide the best way to use resources. - Understand what other people might be able to deliver better; - Identify what could be done in a more efficient way, for example providing services online. - Work closely with residents and businesses to help them understand the options, and build support.

POLICY	DESCRIPTION
<p>Policy 2 – Beyond Buckinghamshire – We will work to improve the connectivity and reliability of Buckinghamshire’s transport network, stimulate economic growth and promote safer more sustainable travel.</p>	<p>Buckinghamshire has existing key transport connections. Key challenges on these networks have been identified, and in some cases solutions to them are being considered. Better understanding of the issues / new issues may be identified throughout the life cycle of the LTP4.</p>
<p>Policy 3 - Development management - We will keep Buckinghamshire thriving and attractive by getting the best deal from new development. Our dedicated Development Management Policy will help developers to ensure new development meets Buckinghamshire’s needs.</p>	<ul style="list-style-type: none"> - Get the best deal for Buckinghamshire from economic growth and development. - Maximise external investment in the county’s infrastructure; - Create the right conditions for firms to flourish and succeed <p>The Development Management Policy will inform the Council’s advice to district councils when consulted on the transport impacts of planning applications as the highway authority. Developers (and anybody else with an interest) should refer to the dedicated Development Management Policy.</p>
<p>Policy 4 – Maximising our rail network - We will work in partnership with key stakeholders to develop a reliable rail transport network that: provides effective access within the county; links us to the rest of the country; and is integrated with other modes of transport, including airports.</p>	<p>The policy’s aims are to:</p> <ul style="list-style-type: none"> - Grow Buckinghamshire’s economy through the provision of a reliable network with good capacity; - Provide improved connectivity in Buckinghamshire and to national and international destinations - Provide improved integration between modes, to promote a seamless, reliable and punctual journey; - Promote attractive onward links by sustainable modes of transport, such as walking and cycling. <p>Achieved by:</p> <ul style="list-style-type: none"> - Working with the rail industry (and other stakeholders) to improve stations and encouraging improved services, new transport connections, better access; - Continue to work as an active member of the East West Rail Consortium - Promote the integration of transport services through common branding, ticketing and network coordination. - Assist operators and key stakeholders in marketing; - Work with other rail industry stakeholders, developers and communities to develop new solutions and promote integration; - Make public transport accessible to as many people as possible; - Support development in locations that support the use of rail (and other relatively sustainable modes).
<p>Policy 5 – Maximising our rail network - We will work to ensure that HS2 is built with minimal disruption to residents and that it brings benefits to Buckinghamshire including a new East West Rail station in the north of the county and high-quality restoration of construction sites.</p>	<p>The proposed HS2 route lies across Buckinghamshire and its construction period lasts through much of LTP4’s duration. At the time of writing this Plan, no stations are currently planned in Buckinghamshire. The Council believes that there is a case for a new station in north of the county, on the East-West Rail line. This would provide a connection for businesses and residents in the north of Buckinghamshire to key business centres in the UK and could also be used to bring HS2 workers into the area</p>
<p>Policy 6 - Aviation - We will work with partners to improve connections with key airports, to maximise the potential for growth whilst protecting the county’s unique environment. We will work with partners to ensure the views of Buckinghamshire’s</p>	<p>Nearby airports at Heathrow and Luton provide significant aviation related employment opportunities for Buckinghamshire and links to important international business and leisure opportunities. Good connections with these airports, appropriate infrastructure and related facilities are vital for Buckinghamshire to thrive.</p> <p>The proposed expansion of Heathrow Airport is forecast to result in a</p>

POLICY	DESCRIPTION
<p>residents are represented: so aviation works for Buckinghamshire.</p>	<p>substantial increase in employment at and around the airport, generating up to 77,000 jobs by 2030. This will present an important economic opportunity to Buckinghamshire, particularly if the county is provided with good multi-modal transport connections with Heathrow. To ensure Buckinghamshire is well connected to Heathrow Airport, London Luton Airport and other international gateways, the Council look to:</p> <ul style="list-style-type: none"> - Work with neighbouring local authorities and infrastructure providers to develop reliable and efficient connections to these major national and international gateways; - Work with train and coach operators to provide efficient access to these major destinations; - Work with partners to help to reduce congestion on key roads, such as A413, A4010, A355 and M40. <p>The impact of airports on the local environment (including that from surface access to the airport for people and goods) needs to be carefully considered and taken into consideration when assessing the costs and benefits of major aviation schemes. To protect Buckinghamshire's special environment we will work with partners to:</p> <ul style="list-style-type: none"> - Minimise potential adverse environmental impacts of airport expansion in partnership with central Government, the aviation industry, providers of surface access transport infrastructure and services, neighbouring local authorities, and other relevant stakeholders; - Encourage travel to airports using sustainable modes of transport (such as rail and coach travel), working in partnership with transport infrastructure and service providers; - Ensure Buckinghamshire's views are represented in responses to airport expansion proposal, particularly at Heathrow.
<p>Policy 7 – Reliable road travel – We will work with partners to find ways to improve the reliability and connectivity of Buckinghamshire roads. We will work to give Buckinghamshire's people and businesses the certainty of journey times they need, on a network that has the capacity and connectivity for the growth we expect.</p>	<p>The towns and villages in Buckinghamshire's relatively rural county are connected by a complex road network that often provides the only transport link, so the effective operation of these roads is essential. This involves:</p> <ul style="list-style-type: none"> - Work to ensure that road journey times are reliable throughout the county; - Develop robust business cases for reducing congestion in areas and corridors that are most severely affected by delays; - Work with developers and district councils to ensure that new developments are integrated with the existing road network and that potential congestion caused by the site is properly managed and mitigated (including through Section 278 and Section 106 agreements). See also the 'Managing the impact of new developments' section above; - Encourage Highways England's investment programme to develop and enhance strategic roads that help Buckinghamshire thrive, as part of an integrated plan to ensure such schemes do not result in strain and delays on our feeder roads; - Work with partners, including Buckinghamshire Thames Valley Local Enterprise Partnership, England's Economic Heartland and other organisations, to identify opportunities for improvements; - Continue to work with bus operators to improve journey time reliability and capacity, including through Punctuality Improvement Partnerships where appropriate - Support the use of innovative technology. This could include semi-autonomous and autonomous vehicle technology, to enable vehicles to drive safely (so reducing delays caused by accidents)

POLICY	DESCRIPTION
	<p>and in a way that maximises highway capacity. The 'Total Transport' policy (below) also discusses how this applies to public transport.</p> <ul style="list-style-type: none"> - Develop more detailed documents to help put this policy (and the Plan as a whole) into action
<p>Policy 8 - Maintaining our roads and other transport assets – We will take a rigorous, data driven, approach to understanding the condition and needs of the highways network. This will support the Council's objectives and provide the best value. Decisions should be based on good evidence of: the condition of our highways (including from the public and Councillors); the costs benefits and risks of different ways of improving them; and how we can minimise disruption on our highway networks.</p>	<p>Maintaining Buckinghamshire's roads, footpaths, cycle paths, rights of way and other highways infrastructure (such as bridges, streetlights and signs) has three main parts:</p> <ol style="list-style-type: none"> 1. Planned maintenance: larger and longer term investments, designed to improve the way highways infrastructure is managed. The Council's Highways Infrastructure Asset Management Policy will identify the best way to undertake planned maintenance. It will consist of a Policy, a Strategy and a number of more detailed plans. For locally important assets that don't have a strategic role, such as local access roads, a meeting will be offered to Councillors, to discuss the priorities for all roads in their division, to inform the prioritisation of schemes directly. 2. Routine maintenance: works such as grass cutting and gully emptying are planned on a cyclical basis. We will continue to work to improve the way we do this using a rigorous, data driven, approach that considers the risks and benefits of different ways of improving our highway network. 3. Reactive maintenance: when defects are identified through routine safety inspections or reports from members of the public. These defects are categorised according to the risk they pose to highway users and are prioritised accordingly for reactive repairs.
<p>Policy 9 - Freight - Freight transport should help to keep Buckinghamshire thriving and attractive. Freight should move around the county as efficiently as possible, without imposing inappropriate costs on business, consumers, residents or our unique environment. A dedicated Freight Strategy will help make freight work for Buckinghamshire.</p>	<p>Managing freight transport is a vital part of keeping Buckinghamshire thriving. To make freight work for Buckinghamshire the Council plans to prepare a new dedicated Freight Strategy to support LTP4. When produced this will replace the freight strategy published to support LTP3. The new freight strategy is likely to include:</p> <ul style="list-style-type: none"> - Identifying the most appropriate routes for large freight vehicles; - Maximising opportunities to get freight off of our roads, when rail or water freight are options; - Identifying opportunities to ensure freight is appropriately managed for (a) In new developments (see also the policy on 'Managing the impact of new developments' above) (b) In plans made by the Council and district authorities (such as our Minerals and Waste plans), or the district authorities' Local Plans). (c) In investments in our transport networks (such as new roads or improved junctions); - Highlighting where communities, businesses, developers and the haulage industry can work together to make freight work (e.g. provision of 'open data' to help providers make better routing information available to hauliers) - Ensuring that freight management measures do not just move problems on to other areas.
<p>Policy 10 – Improving our environment – We will protect Buckinghamshire's unique countryside and other special environments, working with partners to manage air quality, take advantage of opportunities to encourage more sustainable travel choices and reduce noise pollution. We will do this through the transport investments we promote, by</p>	<p>Buckinghamshire has one of the highest levels of emissions per head in the South East. Other policies in this Plan will contribute to reducing emissions (the mobility policy supports the development of lower emission vehicles by business, while other policies aim to reduce car use and so reduce emissions. The separate policies in this document on walking, cycling, as well as car clubs and lift-sharing provide more information.</p> <p>Transport can also cause significant levels of noise pollution, especially near major developments, main roads and industry. Noise pollution can affect our quality of life, health and our special</p>

POLICY	DESCRIPTION
managing the impact of new development, by promoting the use of Travel Plans, and by working with business and researchers to develop lower emission technologies.	environments. In Buckinghamshire, the most significant sources of noise include our more urban areas, major motorways, railway lines and airports. Other more localised sources of noise also exist. Transport can play a big part in reducing noise pollution. This can be through the inclusion of noise reducing materials or barriers when required in highway improvements; encouraging quieter modes of transport; managing traffic effectively; encouraging the use of Travel Plans; or managing the transport impacts of new development. The other policies set out in this Plan provide more information on how we put this policy into practice.
Policy 11 – Access to education - We will continue to encourage the development and implementation of school travel plans across all of the county's schools. Our 'Sustainable Modes of Transport Strategy' for Schools (SMoTS) will help to provide access to good quality schools, colleges and training in a way that will be good for our children and the rest of the county.	To help us promote sustainable travel among school pupils, we are updating our Sustainable Modes of Transport Strategy for Schools. ² This strategy sets out how we will work and support others to encourage sustainable school transport. Schools will be encouraged to undertake new initiatives and activities to help promote safe and sustainable travel for journeys to school to sustain their travel plan, with the appropriate level of support. This should help to generate enthusiasm and interest in sustainable travel from a young age and could also help us reduce the costs of school travel.
Policy 12 - Walking – Walking should be the best option for more of our short journeys. We will look to develop the walking network and encourage walking, to help ensure it becomes one of the most convenient ways to make short journeys.	<p>If more short journeys could be made on foot it would reduce congestion, improve our health and help protect Buckinghamshire's unique environment by reducing journeys by car. To encourage walking as a form of travelling for short journeys in particular, we will look to:</p> <ul style="list-style-type: none"> - Promote walking in schools and with employers. We will work in partnership with the health sector, through a range of travel planning interventions. See also the separate policy on 'Access to education' above; - Promote projects with walking elements such as 'walk to work' days and Buckinghamshire's 'Simply Walk' programme; - Promote walking in urban areas, focusing on where traffic congestion is a problem or there are barriers to walking; - Provide information on walking routes and the benefits of walking, using a range of promotional materials such as leaflets and electronic information; - Work with local planning authorities to ensure that new developments are accessible by walking and new or upgraded routes are provided where appropriate. See also the separate policy on 'Managing the impact of new developments' above. - Work with public transport operators to integrate walking into longer and multi-modal journeys; - Improve walking routes between bus and train services, and key destinations, such employment, work and leisure. - Improve the quality and availability of information on walking. - Encourage the enhancement and development of station travel plans; to encourage the use of walking to and from stations. - Provide better signage at train stations and bus hubs, to guide people between services and to key destinations. - Improving facilities for pedestrian, particularly in town centres and along key walking routes - Improve infrastructure and environment for pedestrians in town centres - Make walking work for all users for example by providing places to rest - Where possible, provide wide footpaths to cater for all users - Provide safe crossings at busy locations; - Improve lighting, layout or other conditions to make people feel safer; - Ensure footways are well maintained and free from vegetation;

POLICY	DESCRIPTION
	<ul style="list-style-type: none"> - Support the implementation of the Rights of Way Improvement Plan.
<p>Policy 13 – Encouraging cycling - We will look to develop the cycling network through a combination of new infrastructure, maintenance and guidance. This will help cycling to become one of the most convenient and well used forms of transport for short journeys.</p>	<p>Cycling can offer a good alternative to driving for many trips. To develop a high quality network we will work with our partners to:</p> <ul style="list-style-type: none"> - Analyse the network – identifying well used routes and existing and future desire lines, taking account of development plans. - Work with local planning authorities and the development industry to secure appropriate cycling infrastructure within and to new development sites. See also the separate policy on ‘Managing the impact of new developments’ above - Prioritise the provision of cycle connections to key destinations like major employment sites, town centres, public transport interchanges and places of education, thereby delivering schemes which have the greatest impact on increasing cycling. - Work with communities – we will continue to consult with local cycling groups and Buckinghamshire’s communities, to encourage more proactive, locally led, schemes. - Seek funding from a range of sources to develop the cycling network further. - Continue to monitor the current network to identify areas for improvement and target investment. We will engage with local volunteers to help identify the best value for money opportunities for regular maintenance of routes. - Work with national and local organisations and stakeholders to attract investment and identify opportunities to increase funding for the maintenance of routes. We will look to prioritise investment at busy locations such as town centres, work places and leisure facilities, seeking funding from sponsors such as businesses to support an investment. High quality green spaces (or ‘green infrastructure’) can also provide great cycling routes, with added health and environmental benefits - We will work to ensure new developments contribute appropriately (see also ‘Managing the impact of new. - Provide guidance and share best practice, to ensure that the cycling network is as safe and secure as possible. - Promotional and educational initiatives which encourage people to try out alternatives to the private car. - Increase public confidence in cycling and provide better access to bikes for the most vulnerable of users. - Work with local and national stakeholders, particularly partners from the health sector, to develop and fund a range of cycling promotional and awareness raising measures. - Work with health care providers to improve connectivity within the current network, including the promotion of cycling for short journeys.
<p>Policy 14 - Car clubs and car sharing – We will work with partners to explore opportunities for car clubs and car sharing initiatives. This will provide an alternative to car ownership for some: encouraging people to consider other modes of transport; and helping people to access the opportunities Buckinghamshire has to offer.</p>	<p>Car clubs provide people with access to a modern car when they need it, on a pay-as-you-use basis. Lift-sharing uses technologies to match up people making similar trips to share lifts, reducing the number of cars on the road and saving them money. For some people these provide an alternative to owning a car, or to owning more than one car. As technology develops opportunities for car clubs and lift sharing are likely to grow. This can have a number of benefits including:</p> <ul style="list-style-type: none"> - Enabling people to access employment, healthcare, education, leisure facilities and other opportunities. - Helping to reduce number of cars on the network, with consequent benefits to the economy, health and environment.

POLICY	DESCRIPTION
	<ul style="list-style-type: none"> - Reducing the demand for parking spaces in our residential areas. - Making people consider whether they need to arrange a car to make a journey or can travel by another means. <p>To promote the use of car clubs in new developments Buckinghamshire will:</p> <ul style="list-style-type: none"> - Work with the local planning authorities to secure planning agreements which enable the integration of car clubs into appropriate new developments. - Encourage travel plans which make the most of car club opportunities within new developments. - Work in partnership with developers to promote the benefits of (and provide guidance). - Work with public transport operators to identify the potential to provide incentives like discounted fares for car club members. - Explore opportunities for integrated transport initiatives e.g. smart cards covering public transport and car clubs. - Encourage employers to commission workplace travel plans to identify options to reduce car dependency and promote schemes such as car clubs and car sharing. - Promote car sharing initiatives and look at incentives for car sharing e.g. car share parking spaces. - Explore partnership opportunities with train operators, bus companies and community transport groups to develop an integrated rural transport approach.
<p>Policy 15 - Intelligent mobility and new technology - We will promote the research and development of intelligent transport technology in our county, becoming a 'living laboratory' for technology innovation and demonstration.</p>	<p>Intelligent Mobility projects use data and cutting-edge technology to deliver:</p> <ul style="list-style-type: none"> - Understanding of the needs, preferences and behaviours of people and businesses. - The exploitation of data. - Capitalising on advances in technology in areas such as the electric vehicles, sensors and autonomous systems. - Transport networks operating reliably at optimal capacity with seamless interchange. - A vibrant commercial market that encourages business innovation in the delivery of transport services and can learn from experience beyond the transport world.
<p>Policy 16 - Total Transport: the bus network Buckinghamshire needs - We will work with partners to ensure public transport services best meet the county's needs – now and in the future.</p>	<p>Buckinghamshire will also work with partners to:</p> <ul style="list-style-type: none"> - Ensure developments are located near good public transport or provide the right public transport (see also the 'Managing the impact of new developments' section). - Help improve public transport information. - Improve the way we pay for public transport, for example through smart ticketing or fares - Provide bus priority measures (such as bus lanes) on our roads. - Improve public transport interchanges (such as bus stops). - Make public transport accessible to as many people as possible, considering the needs of disabled people and others with specific needs. This can include physical measures but also things like information for users or training for staff. - Establish an 'Integrated Transport Hub' – bringing the teams in the Council that deal with public transport together in one team. This will allow us to work more efficiently and help us to identify new ways of providing public transport. - An Improvement Plan to implement 'quick wins' that improve the

POLICY	DESCRIPTION
	<p>way we work in the short term.</p> <ul style="list-style-type: none"> - Pilot studies, with local communities and other stakeholders, to try out new ways of providing transport services.
<p>Policy 17 - Road safety - We will work with partners to support road safety and reduce the risk of death or injury on the county's highways through infrastructure improvements, road user training, promotion and education. We will work to ensure that new developments provide safe and suitable access .We will promote a mix of engineering, education and enforcement activity focused on casualty reduction and prevention. We will use data to inform targeted education, training and promotional road safety initiatives, along with supporting national casualty reduction campaigns</p>	<p>Encouraging behaviour change - Driver behaviour remains the fundamental cause of road safety problems. Driver education and awareness campaigns are important in improving driver behaviour, and highlighting to drivers that they must take more account of other drivers. People need to pay particular attention to more vulnerable road users: typically pedestrians and cyclists, but in a rural county there are also equestrians to be mindful of.</p>
<p>Policy 18 - Tackling crime – People should feel safe to use public transport, walk, cycle and enjoy our town centres. We will continue to work with partners to improve security on our rail and bus networks; and make our streets and town centres feel safer.</p>	<p>Buckinghamshire will work with partners to address crime on the rail networks and to address fear of crime on the bus network. In addition, improving passenger information, growing passenger numbers and increasing the reliability of services all contribute to making people feel safer on buses. As part of improvements to streets and town centres, and when new developments are built it is important that they provide as visibly safe an environment as possible. See also the 'Managing the impact of new developments' section above. Changing perceptions of safety is also important. We will investigate how we can help to educate the public through our work, for example by helping share data on crime on transport to reduce perceptions of crime.</p>
<p>Policy 19 - Parking – We will help to ensure that Buckinghamshire has appropriate parking in the right places.</p> <p>The Buckinghamshire Countywide Parking Guidance is Buckinghamshire County Council's policy on parking throughout the county in new developments. It sets out how much parking new developments should provide for bicycles, motorcycles, cars and blue badge holders. It also gives guidance on how this parking should be provided and managed. The</p>	<p>Making sure new developments provide the right parking will be vital to ensure Buckinghamshire grows and stays a special place to live and work. Clear and appropriate guidance is required to help make sure developments do provide the right parking. The Buckinghamshire Countywide Parking Guidance is Buckinghamshire County Council's policy on parking throughout the county in new developments. It sets out how much parking new developments should provide for bicycles, motorcycles, cars and blue badge holders. It also gives guidance on how this parking should be provided and managed. The Buckinghamshire Countywide Parking Guidance will inform the Council's advice to planning authorities in its capacity as Highway Authority, helping them to make appropriate planning decisions on parking matters.</p>

POLICY	DESCRIPTION
Council will manage on-street parking, through parking restrictions and the enforcement of those restrictions, to make sure on-street parking works for Buckinghamshire.	

4.3 STEP 3: INITIAL SCOPING FOR IMPACTS AND EFFECTS ON NATURA 2000 SITES

4.3.1 Where the LTP4 policies will clearly not lead to specific infrastructure projects or any tangible effects on European Sites, for example as a result of being communication-based, they have been screened out in Table 4.2.

Table 4-2 LTP4 POLICIES SCREENED OUT FROM FURTHER ASSESSMENT

POLICY	SCREENED IN / OUT	JUSTIFICATION
Policy 1 – Managing demand for our services	SCREENED OUT	Design policy that does not propose any change with non-spatial delivery (consultation and education-based).
Policy 2 – Beyond Buckinghamshire (refer to Section 4 of the LTP4 'Putting the Plan into Action')	SCREENED IN	Key network improvements have been identified at the strategic plan level (Buckingham Link to Silverstone and North (A421 – A422) / A418 Eastern Access (linking to A5-M1 Scheme) / A41 Upgrade / Improving A335 and High Wycombe Town Centre / Improving Access to Luton Airport / Iver link / Oxford – Cambridge Expressway improvements to A421 and Improving access to M40 at (i) high Wycombe and (ii) Bicester/ North to South Buckinghamshire Connectivity / Aylesbury Outer Ring Road / P. Risborough Link). The policy sets the strategy that will drive delivery of proposals.
	SCREENED OUT	Specific proposals are referred to but not proposed by the plan: M4/A329(M)/ M40 Corridor / A404 Link between High Wycombe and Maidenhead, access to Crossrail / Crossrail / EWR / M25 / Western Rail Access to Heathrow / Chiltern Line Upgrade.
Policy 3 - Development management	SCREENED OUT	Strategic policy that proposes change but is linked to more detailed policies / proposals proposed in the LTP4 for detailed transport issues.
Policy 4 – Maximising our rail network	SCREENED IN	Key network improvements have been identified at the plan level. The policy sets the strategy that will drive delivery of proposals.
Policy 5 – Maximising our rail network (HS2)	SCREENED IN	HS2 is subject to a stand-alone HRA beyond the scope of the LTP4 screening assessment (not proposed to be brought forward through LTP4). However, there is potential for an additional spatial element with a new station on the east-west rail line 'Steeple Claydon'.
Policy 6 - Aviation	SCREENED OUT	Heathrow airport expansion (including associated infrastructure / surface access strategies) is subject to a separate HRA beyond the scope of the LTP4 screening assessment (project is not proposed to be brought forward through LTP4). No separate spatial elements are described within Policy 6.
Policy 7 – Reliable road travel	SCREENED OUT	The policy does not propose any change (i.e. is a design policy) and it lists the criteria for testing certain proposals.
Policy 8 - Maintaining our roads and other transport assets	SCREENED IN	There is the potential for change to the existing baseline by provision of new maintenance strategy.
Policy 9 - Freight	SCREENED IN	There is the potential for change to the existing baseline by the provision of dedicated haulage routes on

		existing/improved networks.
Policy 10 – Improving our environment	SCREENED OUT	Environmental protection /safe-guarding policy.
Policy 11 – Access to education	SCREENED OUT	The policy does not propose any change (i.e. is a design policy).
Policy 12 - Walking	SCREENED IN	There is potential for change to the existing baseline by the provision of new / improved foot paths.
Policy 13 – Encouraging cycling	SCREENED IN	There is the potential for change to the existing baseline by the provision of new / improved cycle paths.
Policy 14 - Car clubs	SCREENED OUT	The policy does not propose any change (i.e. is a design policy).
Policy 15 - Intelligent mobility and new technology	SCREENED OUT	The policy does not propose any change (i.e. is a design policy).
Policy 16 - Total Transport: the bus network	SCREENED IN	There is potential for change to the existing baseline by the provision of new / improved infrastructure.
Policy 17 - Road safety	SCREENED OUT	The policy does not propose any change (i.e. is a design policy).
Policy 18 - Tackling crime	SCREENED OUT	The policy does not propose any change (i.e. is a design policy).
Policy 19 - Parking	SCREENED OUT	The policy does not propose any change (i.e. is a design policy).

4.3.2

Development of, or improvements to, infrastructure in proximity to Natura 2000 or Ramsar sites as a result of the implementation of LTP4 has the potential to result in a number of short- and long-term impacts, as detailed in Table 4.3 below.

Table 4-3 POTENTIAL IMPACTS AND EFFECTS ON NATURA 2000 AND RAMSAR SITES AS A RESULT OF LTP4

POTENTIAL IMPACTS/EFFECTS	DEVELOPMENT ACTIONS AND ACTIVITIES
Water Resources and quality	Pollution from accidental spills and run off
Air quality	Increase in atmospheric pollutants during construction and operation (nitrogen deposition, dust)
Habitat / Species Disturbance	Construction and operation of new developments (noise, air, visual disturbance) Recreational pressures during operation including improved access
Habitat (and species) loss and fragmentation (including supporting habitats)	Direct land take during construction Barriers to migration during operation (for example bridge construction)

4.3.3 Taking into account the specific vulnerabilities, issues and threats for each Natura 2000 and Ramsar site within the ZOI (identified in Table 3.1), an assessment has been made as to whether any of the impacts described in Table 4.3 might arise as a result of the implementation of LTP4 policies 2,4,5,8,9,12,13 and 16. The results of this assessment are summarised in Table 4.4.

4.3.4 Where insufficient detail is available, potential development requirements are described and considered assumptions are made regarding likely impacts.

4.4 IN COMBINATION IMPACTS AND EFFECTS ON NATURA 2000 AND RAMSAR SITES)

4.4.1 Given the uncertainties surrounding the timing and effects of other county level plans and projects, it is not practicable at this stage to identify all the possible plans and projects that may act 'in-combination' or to consider the specific nature of likely effects arising.

4.4.2 However, it is recognised that there is potential for cumulative effects between transportation improvement schemes proposed and referenced in the LTP4 (refer to Policy 2) and other transport schemes. In addition, it is possible to outline at a strategic level the broad types of effects that may arise from the implementation of other plans and projects. Some of the effects may occur as a result of a given scheme, but may also occur or be magnified as a result of a wider range of development actions and activities arising from the implementation of other plan and projects. Where appropriate, a strategic assessment of the potential for cumulative effects to arise has been provided in Table 4.4.

Table 4-4 POTENTIAL IMPACTS AND LIKELY SIGNIFICANT EFFECTS

POLICY	SCENARIO IN RELATION TO NATURA 2000 SITE IN ZOI	POSSIBLE IMPACTS ARISING				RECREATIONAL DISTURBANCE	CONCLUSION OF LIKELY SIGNIFICANT EFFECTS
		HABITAT LOSS/FRAGMENTATION	NOISE / VIBRATION/VISUAL DISTURBANCE	WATER QUALITY / FLOW	AIR QUALITY (EMISSIONS, DEPOSITION, DUST)		
Policy 2 – Beyond Buckinghamshire	<u>Improving Connectivity to Luton.</u> Broad locations are proposed within the LTP4 for linking Aylesbury to Luton and Berkhamsted to Luton. These fall within proximity to part of the Chilterns Beechwoods SAC (Ashford Commons and Woods SSSI component). Any infrastructure project (road or rail) within 2-2.6kms of this site falls within the SSSI IRZ. The broad location shown for the Scheme is located outside of the Zoi (> 30 km) for Mole Gap to Reigate Escarpment SAC (with bats as a qualifying feature).	Chilterns Beechwoods SAC is currently fragmented by roads. In the absence of further details on the spatial location of any schemes proposed, following the precautionary principle ¹⁴ , it is considered that additional fragmentation as a result of new infrastructure cannot be ruled out.	Not considered likely to be a vulnerability of the SAC interest features.	Changes to air and water quality during the construction and operation of a new link to Luton in the locations proposed could result in significant effects alone and in-combination with other development.	Not considered likely to arise as a result of improved linkages to Luton.	It is not possible to conclude that there will be no Likely Significant Effects on the integrity of the Chilterns Beechwoods SAC from habitat loss/fragmentation; and water or air quality changes as a result of the implementation of LTP4 Policy 2.	
	<u>Oxford-Cambridge Expressway.</u> Within Buckinghamshire, this proposed transport link does not fall within the Zoi (and does not fall within a SSSI IRZ for infrastructure). The closest Natura 2000 site is approximately 9 km distant from the county boundary in neighbouring Oxfordshire, (Oxford Meadows SAC). The broad location shown for the Scheme is located outside of the Zoi (> 30 km) for Mole Gap to Reigate Escarpment SAC (with bats as a qualifying feature).	No sites are located within the Zoi where the proposed infrastructure works fall within the County boundary. No Likely Significant Effects.					

¹⁴ In case of doubt, or negative conclusions, the precautionary and preventive principles should be applied and procedures under Article 6(4) of the Directive should be followed.

POLICY	SCENARIO IN RELATION TO NATURA 2000 SITE IN ZOI	POSSIBLE IMPACTS ARISING				RECREATIONAL DISTURBANCE	CONCLUSION OF LIKELY SIGNIFICANT EFFECTS
		HABITAT LOSS/FRAGMENTATION	NOISE / VIBRATION/VISUAL DISTURBANCE	WATER QUALITY / FLOW	AIR QUALITY (EMISSIONS, DEPOSITION, DUST)		
	<u>Improving A355 between Amersham and Beaconsfield: A355 to High Wycombe Town Centre; Buckingham link to Silverstone and North (A421 – A422) and A418 Eastern Access (linking to A5-M1 Scheme).</u> These proposed improvement schemes do not fall within the proposed Zol or a SSSI IRZ for infrastructure. The broad location shown for the Scheme is located outside of the Zol (> 30 km) for Mole Gap to Reigate Escarpment SAC (with bats as a qualifying feature).	No sites are located within the Zol. No Likely Significant Effects.					
	<u>A41 Upgrade and Aylesbury Outer Ring Road:</u> to the east of Ayelsbury, the A41 is located in immediate proximity to the Chilterns Beechwood SAC and is located within the corresponding SSSI's IRZ for infrastructure.	Chilterns Beechwoods SAC is currently fragmented by roads. In the absence of further details on schemes proposed, following the precautionary principle, it is considered that additional fragmentation as a result of new infrastructure cannot be ruled out.	Not considered likely to be a vulnerability of SAC interest features.	Changes to air and water quality during the construction and operation of new links between the north and south of the County in the locations proposed could result in significant effects alone and in-combination with other development.	Greater levels of access may occur at as a result of improved linkages; however recreation is not identified as a key threat.	It is not possible to conclude that there will be no Likely Significant Effects on the integrity of Chilterns Beechwoods SAC from habitat loss/fragmentation; and water or air quality changes as a result of the implementation of LTP4 policy 2.	
	<u>Princes Risborough Link:</u> to the south of, and located in immediate proximity to the Chilterns Beechwood SAC and Aston Rowant SAC. The Scheme is located within the corresponding SSSI's IRZ for infrastructure.	Chilterns Beechwoods SAC and Aston Rowant SAC are currently fragmented by roads. In the absence of further details on the schemes proposed, following the precautionary principle, it is considered that additional fragmentation as a result of new infrastructure cannot be	Not considered likely to be a vulnerability of SAC interest features.	Changes to air and water quality during the construction and operation of new links between the north and south of the County in the locations proposed could result in significant effects alone and in-combination with other development.	Greater levels of access may occur at as a result of improved linkages; however recreation is not identified as a key threat.	It is not possible to conclude that there will be no Likely Significant Effects on the integrity of Chilterns Beechwoods SAC and Aston Rowant SAC from habitat loss/fragmentation; and water or air quality changes as a	

POLICY	SCENARIO IN RELATION TO NATURA 2000 SITE IN ZOI	POSSIBLE IMPACTS ARISING				RECREATIONAL DISTURBANCE	CONCLUSION OF LIKELY SIGNIFICANT EFFECTS
		HABITAT LOSS/FRAGMENTATION	NOISE / VIBRATION/VISUAL DISTURBANCE	WATER QUALITY / FLOW	AIR QUALITY (EMISSIONS, DEPOSITION, DUST)		
		ruled out.					result of the implementation of LTP4 policy 2.
	<u>Iver Link</u> : the proposed Scheme is located in the vicinity of the Burnham Beeches SAC (no spatial details provided). The Scheme is located within the corresponding SSSI's IRZ for infrastructure.	In the absence of further details on the schemes proposed, following the precautionary principle, it is considered that fragmentation as a result of new infrastructure cannot be ruled out.	Not considered likely to be a vulnerability of SAC interest features.	Changes to air and water quality during the construction and operation of new links between the north and south of the County in the locations proposed could result in significant effects alone and in-combination with other development.	Greater levels of access may occur as a result of improved linkages; however recreation is not identified as a key threat.	It is not possible to conclude that there will be no Likely Significant Effects on the integrity of Burnham Beeches SAC from habitat loss/fragmentation; and water or air quality changes as a result of the implementation of LTP4 policy 2.	
	<u>North to South of Buckinghamshire</u> . Any improvements to the transport links in central Buckinghamshire (namely the A4010) must consider the proximity to parts of the Chilterns Beechwoods SAC (Ellesborough & Kimble Warrens; Windsor Hill; Bradenham Woods, Park Woods & the Coppice; and Naphill Common SSSIs). The proposed highway passes within the IRZ of these sites component SSSIs. The broad location shown for the Scheme is located outside of the Zoi (> 30 km) for Mole Gap to Reigate Escarpment SAC (with bats as a qualifying feature).	Chilterns Beechwoods SAC is currently fragmented by roads. In the absence of further details on the spatial location of any schemes proposed, following the precautionary principle, it is considered that additional fragmentation as a result of new infrastructure cannot be ruled out.	Not considered likely to be a vulnerability of SAC interest features.	Changes to air and water quality during the construction and operation of new links between the north and south of the County in the locations proposed could result in significant effects alone and in-combination with other development.	Greater levels of access may occur as a result of improved linkages; however recreation is not identified as a key threat.	It is not possible to conclude that there will be no Likely Significant Effects on the integrity of Chilterns Beechwoods SAC from habitat loss/fragmentation; and water or air quality changes as a result of the implementation of LTP4 policy 2.	
Policy 4 – Maximising our rail network	It is not possible to identify the location of any Schemes that may arise as a result of this policy. It is therefore not possible to conclude no Likely Significant Effects at this strategic level. Notwithstanding the need for project-level HRAs, there are a number of mitigation measures that can be exploited at the detailed design stage to ensure that LSE are avoided. Specifically, that there will be a presumption against land-take within designated sites and in addition, construction best-practice measures will be integrated into Scheme designs to avoid indirect impacts. It is also considered likely that LSE as a result of disturbance can be avoided						

POLICY	SCENARIO IN RELATION TO NATURA 2000 SITE IN ZOI	POSSIBLE IMPACTS ARISING				RECREATIONAL DISTURBANCE	CONCLUSION OF LIKELY SIGNIFICANT EFFECTS
		HABITAT LOSS/FRAGMENTATION	NOISE / VIBRATION/VISUAL DISTURBANCE	WATER QUALITY / FLOW	AIR QUALITY (EMISSIONS, DEPOSITION, DUST)		
		with the use of carefully designed mitigation measures which will be based on evidence acquired through survey. The locations exploited should ensure that disturbance impacts do not arise and/or that engineering solutions are exploited at the detailed design stage to avoid impacts.					
Policy 5 – Maximising our rail network (HS2)	The policy promotes the construction of a new EWR Station at Steeple Claydon to provide sustainable transport access to HS2 construction compounds and the Calvert Infrastructure Maintenance Depot.	There are no Natura 2000 sites within the ZOI (the closest site is > 20 km distant from the proposed Scheme, Mole Gap SAC is > 30 km distant). In the context of this assessment and the LTP4 strategy, it is considered that there will be no Likely Significant Effects as a result of the Scheme alone or in-combination due to the distance from Natura 2000 sites.					
Policy 8 - Maintaining our roads and other transport assets	It is not possible to identify the location of any Schemes that may arise as a result of these policies. It is therefore not possible to conclude no Likely Significant Effects at this strategic level. Notwithstanding the need for project-level HRAs, there are a number of mitigation measures that can be exploited at the detailed design stage to ensure that LSE are avoided. Specifically, that there will be a presumption against land-take within designated sites and in addition, construction best-practice measures will be integrated into Scheme designs to avoid indirect impacts. It is also considered likely that LSE as a result of disturbance can be avoided with the use of carefully designed mitigation measures which will be based on evidence acquired through survey. The locations exploited should ensure that disturbance impacts do not arise and/or that engineering solutions are exploited at the detailed design stage to avoid impacts.						
Policy 9 - Freight							
Policy 12 - Walking							
Policy 13 – Encouraging cycling							
Policy 16 - Total Transport: the bus network							

4.5 STEP 4: ASSESSMENT OF THE SIGNIFICANCE OF EFFECTS ON NATURA 2000 SITES

4.5.1 The HRA recognises that taking forward sustainable transport growth in the area does pose risks to European sites, but that at this strategic level, the direction and objectives relating to that growth is very high level in nature. The strategic plan itself does not include any specific proposals in terms of the quantity, location or nature of transport growth. Such detail will be brought forward under lower tiers of policy.

4.5.2 With any Schemes proposed under the LTP4 policies, there are a number of environmental control measures that it will be necessary to employ to ensure adverse impacts upon the environment are avoided (in the first instance) or minimised. These will include the reduction of air quality emissions to below critical threshold levels as identified by air pollution information system (APIS) and others. The control of water abstraction and discharge of water is required via the Water Framework Directive¹⁵, the consideration of impacts on designated sites is covered under the Habitats Regulations, Wildlife and Countryside Act 1981 (as amended), and national and location planning policy. It is therefore considered that likely significant effects can be avoided / minimised for the majority of cases where Schemes are brought forward under the LTP4 policies.

4.5.3 It has however not been possible to conclude no likely significant effects for the following policies and associated schemes due to insufficient detail at this time to enable a more in-depth analysis to the degree required for appropriate assessment. It will only be possible to undertake this level of assessment once specific projects are proposed and/or once sufficient detail is available at the plan level to enable a thorough and robust analysis to be carried out.

→ Policies 2,4,8,9,12,13,16

4.5.4 As a result, the HRA for these policies and any associated schemes is deferred to project level under these particular circumstances:

- The HRA of the LTP4 cannot reasonably assess the effects on European sites in a meaningful way.
- The HRA of any projects will be required as a matter of law or government policy; and
- The results of the project level HRA will be able to inform changes in a proposal (including rejecting it outright) if necessary.

4.5.5 An assessment of any likely significant effects will be made and full recommendations for mitigation will be provided within each project/plan-level HRA. These will suggest measures to reduce the potential for any development to result in impacts upon the Natura 2000 network or Ramsar sites. The following over-arching mitigating statements are recommended for incorporation within Buckinghamshire's LTP4:

(a) any development that would be likely to have a significant effect on a European site either alone or in combination with other plans or projects would not be in accordance with the local transport plan and would not, therefore, have the benefit of the presumption in favour accorded via s.38 of the 2004 act at application stage;

and

15 Water Framework Directive (2000): <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0060:EN:HTML>

(b) any development that would be likely to have a significant effect on a European site, either alone or in combination with other plans or projects, will be subject to assessment under part 6 of the habitats regulations at project application stage. If it cannot be ascertained that there would be no adverse effects on site integrity the project will have to be refused or pass the tests of regulation 61 and 62, in which case any necessary compensatory measures will need to be secured in accordance with regulation 66.

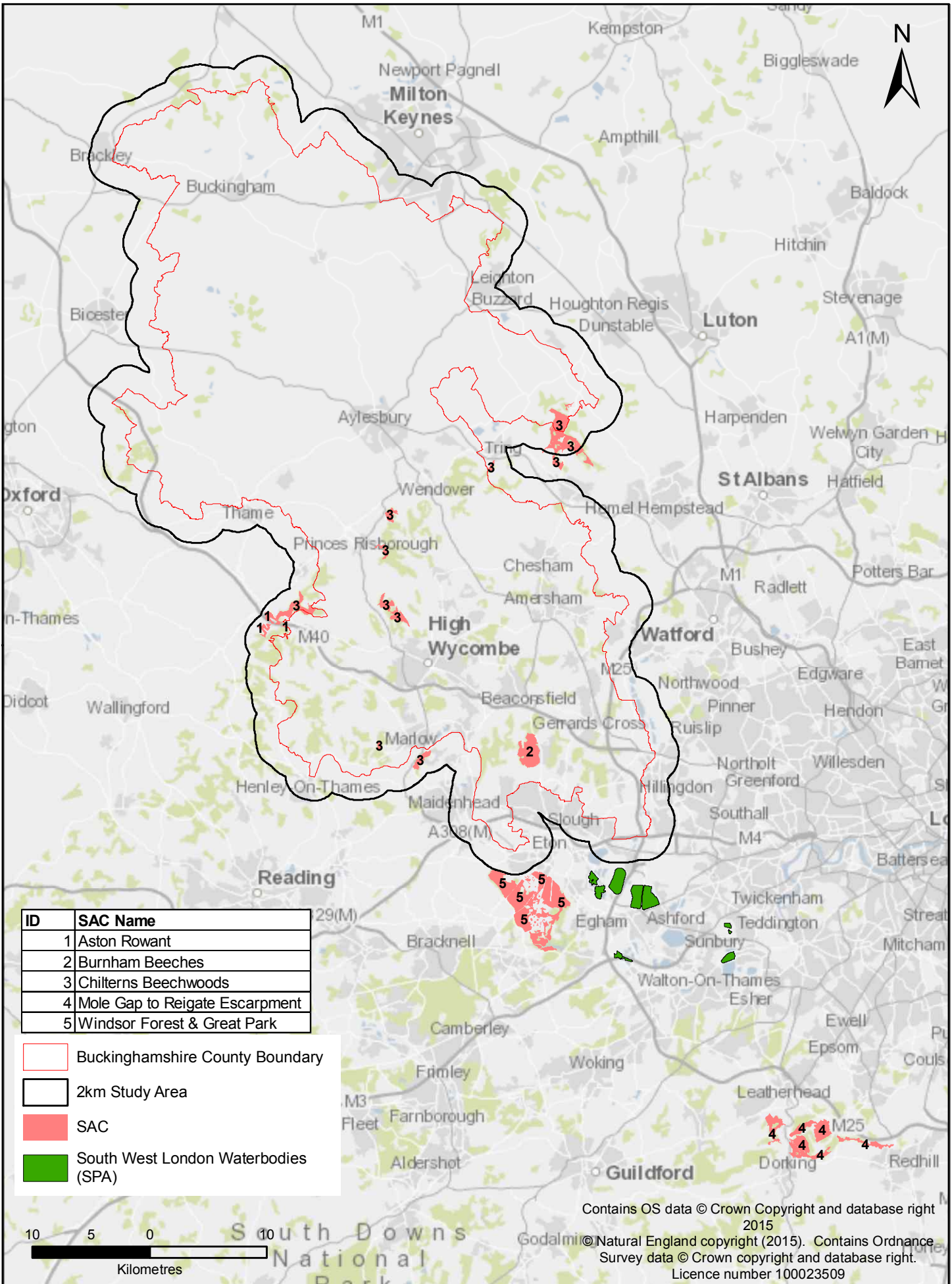
4.5.6 This plan level HRA flags potential risks that the project level should refer to and expand upon. It should be seen as a guide for the lower tier, but has not necessarily identified all the risks that may become apparent at the lower tier. Further detailed information gathering is most appropriately placed at the more detailed plan and project level, and these will be the subject of HRA in accordance with the Habitats Regulations

Appendix A

FIGURES

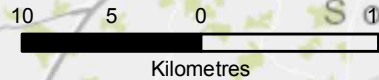
APPENDIX A-1

**FIGURE 3.1 NATURA 2000 AND RAMSAR SITES
WITHIN ZOI**



ID	SAC Name
1	Aston Rowant
2	Burnham Beeches
3	Chilterns Beechwoods
4	Mole Gap to Reigate Escarpment
5	Windsor Forest & Great Park

- Buckinghamshire County Boundary
- 2km Study Area
- SAC
- South West London Waterbodies (SPA)



Contains OS data © Crown Copyright and database right 2015
 © Natural England copyright (2015). Contains Ordnance Survey data © Crown copyright and database right. Licence number 100023509

WSP | **PARSONS BRINCKERHOFF**

Kings Orchard,
 1 Queen Street, Bristol
 BS2 0HQ
 Tel: 44-(0)117-930-6200

Client/Project:
 LOCAL TRANSPORT PLAN 4

Title:
 IDENTIFICATION OF RELEVANT SITES

Drawn: JSdS	Checked: LH
Designed: JSdS	Approved: UD
Date: 08/02/2016	Scale: 1:425,000 A4 Sheet:
Project Number: 62103315-004	Drawing Number: FIGURE 3.1
Revision:	

Plot Date: 08/02/2016 Document Path: B:\Projects\62103315 - Bucks CC LTP4_HRAZ_Dwgs\GIS\Mxcat62103315-004-F03.1.mxd User Name: DeSouzaJ