

Three Rivers District Council

Core Strategy Issues and Options Paper
Study to Inform Appropriate Assessment
(Screening Report)

February 2008

Halcrow Group Limited

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Halcrow Group Limited
Burderop Park Swindon Wiltshire SN4 0QD
Tel +44 (0)1793 812479 Fax +44 (0)1793 812089
www.halcrow.com

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Non-technical Summary

The Core Strategy Issues and Options Development Plan Document (DPD) for Three Rivers District Council has been analysed as part of an Appropriate Assessment (AA) screening process. In parallel with this, the Issues and Options papers of three other Councils in South Hertfordshire, St Albans City and District Council, Dacorum Borough Council and Watford Borough Council were also subjected to Appropriate Assessment screening, the outcome of which is presented in separate reports, one for each council.

Screening is required where a plan, alone or ‘in combination’ with other plans, could affect Natura 2000 Sites (Special Protection Areas for birds – SPAs, Special Areas of Conservation for habitats - SACs) following Article 6(3) of the European Habitats Directive. The first phase of this screening involved an analysis of Three Rivers Issues and Options to ascertain any likely significant effects that may compromise the conservation objectives of nearby Natura 2000 sites. In agreement with Natural England, the statutory consultee for Appropriate Assessment screening, it was decided that Burnham Beeches SAC was the only site of relevance to this screening. The next phase of the AA screening involved examining all other plans, programmes and projects that may affect the Burnham Beeches SAC in conjunction with the Three Rivers Issues and Options. This included the Issues and Options papers of St Albans City and District Council, Dacorum Borough Council and Watford Borough Council as well as regional plans.

The plan analysis showed that the cumulative impacts of the plans may cause various environmental impacts, including increased recreation and air pollution effects on Burnham Beeches SAC, yet these impacts were not considered to be significant. The nearest proposed strategic housing and employment locations in the Three Rivers CSIO are approximately 9.5km away from the SAC and as such are unlikely to cause any direct impacts. Even though impacts on Burnham Beeches were considered to not be significant, mitigation measures were proposed as best practice to limit pressures on the SAC.

It was concluded that the Three Rivers Issues and Options did not add any direct threats of pressure that might cause significant adverse impacts on the Burnham Beeches SAC, either alone or in combination with other plans. It was therefore

considered that a full Appropriate Assessment would not be required for the Three Rivers District Council Issues and Options.

Table 1. Summary of potential impacts of the Three Rivers CSIOP and other plans on the integrity of the Burnham Beeches SAC.

Designated interest feature: Extensive tract of <i>Asperulo-Fagetum</i> beech forests				
Conditions required to support site integrity	Possible impacts from the Three Rivers CSIOP	Possible impacts in combination with other plans and projects	Potential impact on site integrity	Recommendations to ensure no adverse effects on Burnham Beeches SAC
Extensive list provided in Appendix 2 (column 5, Targets). No direct Three Rivers CSIOP/ in-combination effects on individual conditions were foreseen.	No or minimal impacts predicted.	<p>Plans that may act in-combination:</p> <ul style="list-style-type: none"> • Dacorum/ St Albans CSIOPs • SE Plan • East of England Plan • S Bucks Core Strategy Preferred Options • London Plan, Spatial Development Strategy for Greater London • Hertfordshire Minerals Local Plan (MLP) impacts (as above) caused by: <ul style="list-style-type: none"> - Increased mineral extraction - Associated infrastructure and traffic - After-use and changes in type and intensity of land use • Hertfordshire Waste Local Plan/ Appropriate Assessment Screening for the Hertfordshire Waste Development Plan Documents/ Waste Core Strategy Preferred Options Addendum <p>Air pollution effects from operation of waste sites and transport emissions</p> <ul style="list-style-type: none"> • Report on the likely significant effects of proposed waste sites on SACs/SPAs in Buckinghamshire and surrounding area <p>Air pollution effects from operation of waste sites and transport emissions</p> <p>Combined pressures from all of the above:</p> <ul style="list-style-type: none"> • Development at Farnham 	No direct impacts anticipated. Possible air pollution impacts on region and SAC as a whole.	No recommendations specific to Three Rivers. (S Bucks Council/ Bucks C.C. should continue use of NOx detectors along A355 and in Burnham Beeches, recreation impacts should also be monitored by Bucks Councils and landowners. Burnham Beeches Management Plan needs to adapt to changing conditions and threats.

Designated interest feature: Extensive tract of <i>Asperulo-Fagetum</i> beech forests				
Conditions required to support site integrity	Possible impacts from the Three Rivers CSIOP	Possible impacts in combination with other plans and projects	Potential impact on site integrity	Recommendations to ensure no adverse effects on Burnham Beeches SAC
		Common (within 200m of SAC) <ul style="list-style-type: none"> • Housing & other development pressure • Air pollution from development, use of A355 and other nearby roads • Increased recreation • Reducing site isolation; connection of SAC with surrounding landscape • Increased light and noise pollution associated with urbanisation of countryside and construction works 		

1 Introduction

In April 2007 Halcrow Group were appointed by four councils in South Hertfordshire, Three Rivers District Council, St Albans City and District Council, Dacorum Borough Council and Watford Borough Council to undertake an Appropriate Assessment (AA) screening of their Core Strategy Issues and Options papers.

Each council is in the process of preparing a 'Local Development Framework' (LDF) for its administrative region, which will replace the Local Plan. A key part of the Local Development Framework is the 'Core Strategy', a Development Plan Document which sets out the vision and strategy for the district and to which all other Development Plan Documents must comply. St Albans City and District Council, Dacorum Borough Council and Watford Borough Council are also having their Issues and Options Papers screened for Appropriate Assessment in tandem with the screening process for Three Rivers. These plans are examined in sections 5 of this report, 'In-combination Effects.'

The aim of this AA screening report is to analyse the development Core Strategy Issues and Options paper (CSIOP) for Three Rivers District Council and attempt to ascertain any potential effects on European protected sites of nature conservation interest, as described below. This screening will also look at the development plans of councils in neighbouring regions as well as higher level plans.

1.1

Structure of the report

This AA Screening Report is structured as follows:

- Section 1: Introduction: provides background to the Three Rivers CSIOP and the need to undertake the AA screening
- Section 2: Appropriate Assessment: sets out the AA methodology and the legislative requirements
- Section 3: Relevant Natura 2000 sites: describes the site that the screening report focuses on and its conservation requirements

- Section 4: Analysis of Three Rivers CSIOP: focuses on any parts of the DPD that may have an impact on the Natura 2000 site
- Section 5: In-combination effects: describes elements and policies contained in other plans and programmes that may have a combined impact with policies contained in the Three Rivers CSIOP
- Section 6: Final Screening Assessment: provides an evaluation of predicted impacts, possible mitigation measures, including the use of Suitable Areas of Natural Greenspace (SANGS), and concludes whether or not a full AA is required to satisfy the requirements of the EU Habitats Directive

1.2

Sustainability Appraisal and Strategic Environmental Assessment requirements

In parallel with the AA the Issues and Options DPD will also be the subject of a Sustainability Appraisal (incorporating Strategic Environmental Assessment (SEA)) which takes a wider approach to broader sustainability and environmental impacts, rather than the narrow approach that AA takes by focusing on the predicted impacts of plans on Natura 2000 sites. Further, Sustainability Appraisal follows the requirements of the Strategic Environmental Assessment Directive (2001/42/EC) whereas Appropriate Assessment follows the requirements of the Habitats Directive, as described in Section 2.1.

2 Appropriate Assessment

2.1 *Requirements of the Habitats Directive*

Appropriate Assessment is required where any plan, alone or ‘in combination’ with other plans, could have an adverse affect on the integrity of Natura 2000 Sites (i.e. Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)) following Article 6(3) of the European Habitats Directive¹:

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. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, 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.

Article 6(4) of the Habitats Directive goes on to discuss alternative solutions, the Imperative Reasons of Overriding Public Interest (IROPI) test and compensatory measures:

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, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

The Habitats Directive applies to “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon” (Article 6(3)).

In England, most SACs on land or freshwater areas are underpinned by notification as Sites of Special Scientific Interest (SSSI). AA relates specifically and exclusively to the qualifying interests of Natura 2000 sites and not to the broader

¹ Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora

conservation interests or requirements under other SSSIs. However, the Scott Wilson guidance² argues that the latter should be factored into plan-making as part of the SEA / SA process and the planning authority's duty under section 28G of the Wildlife and Countryside Act 1981 to conserve and enhance SSSIs in carrying out their functions.

2.2

The Appropriate Assessment Process

AA is an assessment of the potential effects of a proposed plan 'in combination' with other plans and projects on one or more Natura 2000 sites (also known as European sites). The 'assessment' proper is a statement that says whether the plan does or does not affect the integrity of a Natura 2000 site. The process of determining whether or not the plan will affect the site(s) is also commonly referred to as 'appropriate assessment'. The following AA methodology is based on the requirements of EU and UK Legislation (described below) and the guidance provided by the Department for Communities and Local Government (DCLG).³

A summary of where the AA screening phase fits into the AA process can be seen in Table 1 below.

Table 2: Stages of Appropriate Assessment, based on (DCLG 2006)

Task AA1	Screening – identifying likely significant effects
Task AA2	Appropriate Assessment and ascertaining the effect on site integrity
Task AA3	Mitigation measures and alternative solutions

² *Appropriate Assessment of Plans*. Scott Wilson, Levett-Therivel, Treweek Environmental Consultants, Land Use Consultants, September 2006.

³ DCLG, 2006. Planning for the Protection of European Sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents.

This report presents the findings of Task AA1; the AA screening phase. If the screening assessment, in agreement with Natural England (the statutory consultee), considered that 'Three Rivers' Issues and Options are likely to cause significant adverse impacts on any Natura 2000 site then a full AA report incorporating Task AA2 would need to be carried out.

(a) Tasks AA1 and AA2

Through Tasks AA1 and AA2, Appropriate Assessment promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any negative impacts on Natura 2000 sites by identifying possible impacts early in plan-making, and altering the plan in order to avoid such impacts. These possible impacts should be identified during the screening phase; Task AA1, and more detailed effects on the integrity of Natura 2000 sites should be identified in Task AA2.

(b) Task AA3

Mitigation measures should also be applied during the AA process to the point where no adverse impacts on the site(s) remain. In fact, if the plan is likely to result in any adverse effects, and no further practicable mitigation is possible, then it will be rejected (i.e. not taken forward in its current form). Under such a worst-case scenario, the plan may have to undergo an assessment of alternative solutions (third stage). Compensatory measures are required, as a fourth stage, for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the plan is required for imperative reasons of overriding public interest (the IROPI test). These are very onerous tests which plans are generally considered unlikely to pass.

2.3

Appropriate Assessment and Land Use Planning Documents

In October 2005, the European Court of Justice ruled that 'appropriate assessments' must be carried out on all land use planning documents in the United Kingdom in order to demonstrate that their implementation would not adversely affect sites designated as of being of European importance. Following the ruling, the Department for Environment, Food and Rural Affairs (DEFRA) published draft amendments to the Habitats Regulations on 8th May, 2006. The Habitats Regulations – formally known as the Conservation (Natural Habitats, & c.) Regulations 1994 – aim to transpose the requirements of the Habitats Directive into domestic legislation. These amendments apply to England and Wales only.

2.4

Role of Organisations

(a) Competent Authorities

In the case of local development documents such as the Three Rivers CSIOP, the Local Planning Authority generally takes the role of Competent Authority for the purposes of the Habitats Regulations⁴.

Competent Authorities are responsible for:

- making an appropriate assessment before deciding to undertake, or give any consent, permission or other authorisation for a plan or project likely to have a significant effect on a Natura 2000 site, either alone or in combination with other plans and projects;
- for the purposes of the assessment, consulting the appropriate nature conservation body and having regard to its representations; and
- ensuring that if there is a negative assessment of a plan or project, agreement to that plan or programme is only given if there are no alternative solutions, it must be carried out for imperative reasons of overriding public interest, and any compensatory measures that may be required are secured.

(b) Natural England (formerly English Nature, the Rural Development Service (DEFRA), Landscape, Access and Recreation Department of the Countryside Agency)

Natural England implements, on behalf of the Government, international conventions and EC Directives on nature conservation encompassed in the Conservation (Natural Habitats, &c.) Regulations 1994 and the Conservation (Natural Habitats, &c.) Amendment) (England and Wales) Regulations 2006 consultation draft, as follows:

⁴ European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”)

- provide advice on whether plans and programmes are likely to have a significant effect (either alone or in combination with other plans and projects) when requested to do so;
- advise Competent Authorities whether a plan or programme is necessary for the management of the site;
- comment on appropriate assessments;
- provide advice on the ecological requirements of any compensatory measures; and
- provide advice on the suitability of any proposed compensatory measures.

The draft Habitat Regulations 2006 imply that the Competent Authority can agree if the strategy is likely to cause significant impacts, but it cannot 'give effect' to the strategy until an appropriate assessment has been carried out and determined that it will not adversely affect the integrity of the Natura 2000 site.

(c) Secretary of State

The Secretary of State is responsible for:

- securing any necessary compensatory measures to ensure that the overall coherence of Natura 2000 is protected;
- confirming that any compensatory measures are sufficient to maintain the coherence of Natura 2000;
- informing the Commission of the measures adopted; and
- directing the plan-making authority not to give effect to a plan that may have an adverse affect on site integrity.

2.5

AA Screening Methodology

The methodology developed for this AA screening is based upon the following guidance documents:

- European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites.

- Department for Communities and Local Government (2006). Planning for the Protection of European Sites: Guidance for Regional Spatial Strategies and Local Development Documents.

The methodology steps are shown in Table 3.

Table 3: AA screening methodology for the Three Rivers CSIOP.

STEP	DESCRIPTION	COMMENT FOR THREE RIVERS CSIOP
AA1 - 1	List any Natura 2000 sites within, adjacent to or associated with the area that the plan(s) cover. Review the site(s)' qualifying interest features, conservation objectives and Favourable Condition Tables. Analyse any underlying trends.	Results given in Section 3.
AA1 - 2	Determine whether the plan is directly connected with or necessary to the management of the Natura 2000 site. If it is, then no further assessment is necessary.	The Three Rivers District Council's Issues and Options are not directly connected with the management of any Natura sites within the District. The remaining steps were followed.
AA1 - 3	Identify and discount all policies and proposals that will have no significant impact on the Natura 2000 site(s) (including direct indirect and secondary impacts).	Results given in Section 4
AA1 - 4	Identify any 'in combination' effects of the plan with other plans and projects (including direct indirect and secondary impacts). i.e. the cumulative effect of influences of all the plans and projects on the site(s)' conditions required to maintain integrity.	Considered in combination with neighbouring regions (Section 5.2) and higher level plans (section 5.3). Results given in Section 5.4
AA1 - 5	Identify policies and proposals that may have a significant impact (including direct indirect and secondary impacts) to take through to the appropriate assessment phase if appropriate assessment is considered necessary (Task AA2).	Results given in Section 6 Continuation to the appropriate assessment phase (Task AA2) was not necessary.

3

Relevant Natura 2000 sites

3.1

Background

The significance of a plan's effects on a Natura 2000 site depends on whether the "integrity" of the site is affected. Article 6(3) of the Habitats Directive requires that:

*"the competent national authorities shall agree to the plan... only after having ascertained that it will not adversely affect the **integrity of the site** concerned..."*

To determine what is meant by the "integrity" of the site, it is important to discover why the site was designated. This is a key stage in the AA process. The following information should thus be collated, where possible, for each relevant Natura 2000 site:

- Qualifying interest features: These are the reasons why the Natura 2000 site has been designated, for instance the endangered species that occupy the SAC; rare habitats that occur there; or threatened birds that breed or over-winter in the SPA. The AA focuses on the qualifying interest features that were the primary reasons for the site's designation.
- The site's conservation objectives: These help to focus the assessment. Conservation objectives are a statement of the overall nature conservation requirements for a site, expressed in terms of the favourable condition required for the habitats and/or species for which the site was selected.
- The Favourable Condition Table for the site: Although these tables are designed primarily for monitoring the state of a site, they give information on the trends and environmental conditions required to sustain or promote qualifying interest features and site integrity. However, they should be treated with caution, as favourable conditions as assessed for SSSIs may have little bearing on the conservation status of the features for which a site has been designated.

Source: *Appropriate Assessment of Plans*. Scott Wilson, Levett-Therivel, Treweek Environmental Consultants, Land Use Consultants, September 2006.

The EC (2000) guidance states, “a site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self repair and self renewal under dynamic conditions is maintained, and a minimum of external management support is required”. Some habitats already require heavy management to maintain their site integrity, e.g. through drainage or periodic burning.

The integrity of a site relies on the maintenance of an environment which will sustain its qualifying features and ensure their continuing viability. Legally the focus of AA is on the site’s qualifying features and associated conservation objectives, but these rely fundamentally on ecological processes and functions for their maintenance in a favourable condition, and cannot be appraised in isolation from them. Essential to the maintenance of interest features and the integrity of the site are those environmental conditions which enable key ecological processes and functions to persist. These might include the quantity of water reaching a site, the quality of air, the stability of the climate, or a low level of disturbance.

A description of the conservation objectives of any SACs relevant to the Three Rivers District is provided in section 3.3 and a Favourable Condition Table provided in Appendix 2. A summary of the site is also given below.

3.2

Task AA1: Natura 2000 sites that could be affected by the Three Rivers CSIOP

The results of Task AA1-1 are presented in the following section. Consultation with Natural England confirmed that only one Natura 2000 site is relevant to the screening process for the Three Rivers District CSIOP: Burnham Beeches SAC

3.3

Burnham Beeches SAC

Grid Ref	SU949855
SAC EU code	UK0030034
Status	Designated Special Area of Conservation (SAC)
Area (ha)	382.76
Administrative Regions/ % cover	Buckinghamshire (100%)
Component SSSIs	The entire SAC is also designated as a SSSI and 52.8% is also a National Nature Reserve.

Source: <http://www.jncc.gov.uk/> Accessed on 24/7/07

3.3.1

Qualifying interest features

The primary reason for site selection of the Burnham Beeches SAC 'Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Ilici-Fagenion*). The conservation objectives for this SAC are to maintain the beech forests in favourable condition, subject to natural change.

Burnham Beeches is an extensive area of former beech wood-pasture with many old pollards and associated beech *Fagus sylvatica* and oak *Quercus* spp. high forest. Surveys show that it is one of the richest sites for saproxylic invertebrates in the UK, including 14 Red Data Book species. It also contains nationally important epiphytic communities, including the moss *Zygodon forsteri*.

3.3.2

Conservation Objectives

As stated above, Burnham Beeches SAC is also covered entirely by a SSSI designation. The principal conservation objective of the SSSI⁵ is to:

- Maintain, in favourable condition, the broadleaved and mixed yew woodland (lowland)

⁵ Natural England website: <http://www.english-nature.org.uk/Special/sssi/reportAction.cfm?report=sdrt13&category=S&reference=1000513> Accessed on 19/10/07

3.3.3

Favourable Condition Tables

Although the Favourable Condition Tables are used primarily for monitoring the status of the site, they give information on the trends and environmental conditions required to sustain or promote qualifying interest features and site integrity. Appendix 2 shows the qualifying features for the Burnham Beeches SAC and key environmental conditions required to support site integrity. Table 4, below, shows the percentage of the site considered to be in favourable condition.

Table 4: Burnham Beeches Favourable Condition Status

Qualifying features	% of SSSI Area Favourable	% of SSSI Area Unfavourable Recovering
Asperulo-Fagetum beech forests	62.66	37.34

3.3.4

Vulnerability

Most of Burnham Beeches is in sympathetic ownership and managed for the benefit of nature conservation. A large proportion of the site is designated as a National Nature Reserve and is managed to restore grazed pasture woodland and heathland. The National Trust also owns part of the site. The largest of two private landowners manage the woodland with the aid of Woodland Grant Scheme funding.

Measures are in place to reduce possible damaging influences from adjacent mineral workings, such as dust and hydrological changes. Natural England and the local planning authority are in discussion with the operator to assess the possible impacts of proposed alterations to the programme of works, which will be addressed through the provisions of the Habitats Regulations.

Ambient levels of sulphur and nitrogen oxides in the Burnham Beeches area may indicate that internationally agreed criteria levels for sensitive vegetation are being exceeded. This is under active investigation'. JNCC citation⁶.

⁶ Source: <http://www.jncc.gov.uk/> Accessed on 24/7/07

As a result of the consultation with Natural England for this AA screening report, the potential threats posed by gravel extraction and aerial pollution were reiterated. Aerial pollution of sulphur dioxide and nitrogen compounds arise from, for example, traffic and ammonium compounds from agriculture. These can have impacts on epiphytic communities and bryophytes on veteran trees. Some lichens in these woods are characteristic of an enriched nutrient environment due to this pollution.

The consultation also identified the following potential threats:

- The effects of any development in direct proximity to the SAC, e.g. infill development to the west of Farnham Common
- Currently 375,000 visitors to the SAC per annum. According to the Burnham Beeches Transport Strategy (2006-2011), 650,000 cars drive through the outskirts of Burnham Beeches each year.
- Climate change, e.g. drier summers
- Hydrological impacts from water abstraction. This would only affect a narrow zone around the edge of the SAC. One site of gravel extraction (with high water usage) to the south of the SAC has put in place mitigation measures.

Overall it was established that the Beech Woods were not fed by or connected to any major water courses, so were unlikely to be affected by changes in abstraction in the vicinity.

Beech Woodlands in the UK

According to the Habitat Action Plan⁷ for Lowland Beech and Yew Woodland, the main factors affecting this type of habitat are as follows:

- Grey squirrels (and in the Chilterns, edible dormouse *Glis glis*) strip the bark from beech trees (between 10 and 40 years old) which can result in tree death, disruption of normal age structure and shifts in species composition;
- Rabbits can also cause damage (bark stripping and eating regeneration) in some beech and yew areas.
- Deer browsing on seedlings and saplings, is a widespread problem, which limits capacity for regeneration.
- Introduced species, that replace native beech and yew woodland species. Some woods were planted with conifers in the past; locally, invasive species may include sycamore *Acer pseudoplatanus*, rhododendron, Turkey oak *Quercus cerris* and cherry laurel *Prunus laurocerasus*.
- The predominance of the older age classes in much beech high forest has increased the susceptibility of the beech population to damage from droughts and storms.
- Lack of interest, expertise and incentives amongst some owners results in much beech and yew woodland being unmanaged, or managed unsympathetically.
- Air pollution may cause ‘decline’ in beech trees (increasing their susceptibility to disease), and damage to epiphyte populations.
- Fragmentation of the habitat as a result of development.

⁷ Part of the UK Biodiversity Action Plan: <http://www.ukbap.org.uk/UKPlans.aspx?ID=2> Accessed on 27/7/07

- Climate change, potentially resulting in changes in the vegetation communities.

4 Analysis of Three Rivers Issues and Options DPD

4.1 *Task AA1-2: Connection with SAC Management Requirements*

Following a review of the Three Rivers CSIOP and consultation with Natural England, the findings of Task AA1-2 were that the Three Rivers District Council's Issues and Options DPD is not directly connected with the management of any Natura 2000 sites within the District, and therefore the remaining AA screening methodology steps were followed.

4.2 *Task AA1-3: Options that will not affect the SAC*

The review of the Three Rivers CSIOP and consultation with Natural England identified any aspects of the plan and associated policies and schemes that might influence the conditions required to be maintained or improved to preserve the integrity of the Natura 2000 sites. They are described below and summarised in section 6.

4.2.1 *Quick finds*

The Three Rivers CSIOP provides a strategy which covers the following categories:

- Broad locations for new housing, employment and retail development (Spatial Options)
- Policies to control development (Generic Development Control Policies)
- Delivery of development (Implementation and Monitoring Framework)

The initial sweep of Core Strategy policies reviewed during Task AA1-3 identified that the majority of options in the CSIOP were not likely to cause any significant impacts on the Burnham Beeches SAC (including direct, indirect and secondary impacts). For example, options contained in the 'Spatial Strategy and Broad Locations for Employment', 'Spatial Strategy and Broad Locations for Retail Development', 'Generic Development Control Policies' and the 'Implementation and Monitoring Strategy' were considered unlikely to cause any adverse impacts on the SAC. These policies can be discounted from the further stages in the AA screening. The principal reason why the majority of policies were 'screened out' at

this stage was the geographical distance between the District boundary and Burnham Beeches SAC, a minimum approximate distance of 7.8km. The nearest proposed strategic housing and employment locations at Maple Cross (illustrated in Appendix 3) are approximately 9.5km away. Nevertheless, it was considered that the following two options should be examined in more detail in terms of potential future impacts on the SAC.

4.3 *Options that may impact on the SAC*

No specific issues and options were identified that could potentially cause significant adverse impacts on Burnham Beeches SAC. However, indirect impacts caused by an increase in tourism should be considered in combination with other plans and programmes, as discussed in section 5. An increase in tourist pressure may be caused by the following issues, as described in the Three Rivers CSIOP:

4.3.1 Review of the Regional Spatial Strategy (Government Proposed Changes, December 2006) (page 7, Three Rivers CSIOP):

The regional housing allocation has been set by government at a minimum of 4,000 new dwellings up to 2021.

4.3.2 Strategic Transport Issues (page 34, Three Rivers CSIOP):

The Croxley Rail Link, which plans to re-route and extend the Metropolitan line to Watford junction and improve access to and from London, as well as plans to widen certain sections of the M25, may lead to an increase in development and tourist pressure in the Three Rivers District, which in turn may lead to increased tourist pressure on the Burnham Beeches SAC.

5 In-combination effects

5.1 *Introduction*

A complete list of plans and programmes that were studied for the purposes of this AA screening are listed in Appendix 1. It was considered that there were no international or national plans of particular relevance to the Three Rivers Issues and Options or the Burnham Beeches SAC. However, certain key plans of neighbouring districts and regional plans that are particularly relevant to examine for in-combination effects for Three Rivers are listed below.

5.2 *Analysis of Issues and Options Papers in Neighbouring Districts*

Key neighbouring authority plans include:

- Dacorum Borough Council CSIOP
- Watford Borough Council CSIOP
- St Albans City and District Council CSIOP

5.2.1 *Analysis of the Dacorum Borough Council Issues and Options DPD*

Analysis of the above document concluded that no significant impacts are expected for Burnham Beeches SAC either alone or in combination with the Three Rivers Issues and Options.

5.2.2 *Analysis of Dacorum Borough Council and St Albans City and District Council (combined) Supplementary Issues and Options Paper: Growth at Hemel Hempstead*

The draft East of England Plan provides the strategic guidance for Dacorum Borough Council's preparation of local planning policies up to 2021. In June 2006 a Panel of Inspectors of the East of England Plan produced a report which contained a number of key recommendations that have major implications for the level of housing growth and other development needs in the Borough, particularly Hemel Hempstead. In summary these are:

- Dacorum is expected to provide for 12,000 new dwellings.

- Dacorum will need to increase current levels of housing completions to 530 units per year for 2001-2006, rising to 620 per year over the remaining Plan period. Currently about 345 dwellings a year are being built.

Much of the development outlined in the draft East of England Plan for Dacorum and Watford is likely to occur in brownfield sites, as identified in both Councils' Urban Capacity Studies, thus reducing impacts on the countryside.

However, overall housing levels, combined with development proposed by all four councils, and development in the wider region, e.g. North London (as described in section 5.3) may cause increased tourist pressure on Burnham Beeches SAC.

5.2.3

Analysis of Watford Borough Council's CSIOP

Analysis of the Watford Borough Council Core Strategy Issues and Options paper does not reveal any potentially significant impacts on Burnham Beeches as the closest part of Watford lies approximately 14.5km away from the SAC. Issues and options proposed are more likely to cause impacts on the two Sites of Special Scientific Interest in or near Watford Borough, Croxley Common Moor and Whippendell Wood. Any potential impacts on these SSSIs are, however, outside the scope of this AA screening.

5.2.4

Analysis of the St Albans City & District Council CSIOP

Analysis of the St Albans Issues and Options led to the following question being considered to have potential indirect consequences for the Burnham Beeches SAC, in terms of increased air pollution from traffic:

a)

Long term strategic policy 2: Housing Land Supply

Green belt options for housing development

Question 17: *If there was a proven need to release some land from the Green Belt to meet the District's housing requirements, which of the following options would you support:*

- a) Concentrating housing on large new developments (400 or more homes) in the Green Belt on the edge of existing settlements.
- b) Housing development through minor adjustments to the Green Belt on the edge of St Albans. Harpenden (and possibly London Colney).
- c) Housing through minor adjustments to the Green Belt on the edge of the large villages in the District.

b) Employment Land Options in St Albans District

Question 21: With regard to commuting, would you support any of the following options?:

Option 21 (a): Seeking to keep out-commuting from St Albans District at about the current level (net out-commuting of about 10,000 people)

Option 21 (b): Seeking to reduce net out-commuting, by providing more employment land in the District

Option 21(c): Seeking to increase net out-commuting, by meeting the need for new employment land outside the district

As a precautionary measure, in order to reduce the need for new road building and decrease traffic and air pollution it was recommended in the St Albans AA Screening Report that Options 17(a) and 21(c) should not be pursued.

Possible environmental impacts of the St Albans CSIOP

The possible environmental outcomes of Option 17(a) and 21(c) for the District (possibly affecting Burnham Beeches SAC in the future) are:

- loss of habitat and biodiversity through additional land-take (on previously undeveloped land) for new housing development and associated possible future expansion of transport network;
- habitat fragmentation and reduced landscape connectivity from housing development and possible future expansion of transport network
- increased disturbance from light, activity and noise from the temporary construction works and longer-term urbanisation affecting wildlife;
- increased air pollution from construction works and increased transport emissions affecting species and plant communities sensitive to air quality, such as beech trees and epiphytes.

5.3

Analysis of Regional Plans

Key regional plans include:

- East of England Plan/ Appropriate Assessment of Draft East of England Plan
- Draft South East Plan/ Appropriate Assessment of Draft South East Plan
- South Bucks Core Strategy Preferred Options Development Plan Document/ Appropriate Assessment of South Bucks Core Strategy Preferred Options Document, April 2007
- Hertfordshire Structure Plan
- Hertfordshire Local Transport Plan (LTP) 2006/07 - 2010/11
- Hertfordshire Minerals Local Plan
- London Plan, Spatial Development Strategy for Greater London
- The London Plan, Sub-Regional Development Framework: North London, 2006
- Appropriate Assessment Screening Report: 'Draft Further Alterations to the London Plan', 2006
- Hertfordshire Waste Development Plan Documents/ Appropriate Assessment Screening for the Hertfordshire Waste Developments
- Report on the Likely Significant Effects of Proposed Waste Sites on SACs/ SPAA in Buckinghamshire and Surrounding Area (Stage 1 Appropriate Assessment Screening)
- A355 Route Strategy Appropriate Assessment

5.3.1

Draft East of England Plan

a) Housing Provision

The draft East of England Plan⁸ shows the following housing provision statistics for Hertfordshire:

Table 5: Housing provision forecasts for Hertfordshire

COUNCIL	MINIMUM DWELLING PROVISION, 2001 TO 2021 (NET INCREASE, WITH ANNUAL AVERAGE RATES IN BRACKETS)		
	Total to build, April 2001 to March 2021	Of which already built, April 2001- March 06	Minimum still to build, April 2006 to March 2021
Dacorum	12,000	1,860 (370)	10,140 (680)
St Albans	7,200	1,830 (370)	5,370 (360)
Three Rivers	4,000	1,010 (200)	2,990 (200)
Watford	5,200	1,410 (280)	3,790 (250)
Total 4 councils	28,400	23,590 (1220)	22,290 (1490)
Total Herts (incl. other districts)	83,200	17,480 (3,500)	65,720 (4,380)

⁸ The Secretary of State's Proposed Changes to the Draft Revision to the Regional Spatial Strategy for the East of England and Statement of Reasons, December 2006.

Although the draft East of England Plan shows these housing growth statistics for the area covered by the four councils, there will be no major expansion of employment sites in the region. Instead, Ipswich, Colchester, Harwich, Felixstowe and Clacton are to be the strategic centres of employment in the East of England, meaning development pressure for employment sites is significantly far away from the Burnham Beeches SAC to not cause any negative impacts. In summary, although 22,290 houses are still to be built in the area of the four councils, the development sites are not sufficiently close to cause significant impacts on any Natura 2000 sites.

b) Development in South Bedfordshire and South Buckinghamshire

The housing requirement for South Bedfordshire (Luton, Dunstable, Houghton Regis and Leighton Linlade) as given in the Milton Keynes and South Midlands Sub-Regional Strategy, is 26,300 homes up to 2021, and an additional 1000 dwellings outside of these four sub-regions, as described in the draft East of England Plan. However, the South Bedfordshire Core Strategy, by adhering to the Milton Keynes and South Midlands Sub-Regional Strategy, proposes that development should “focus on two areas of search which would exclude the Chilterns Area of Outstanding Natural Beauty.” The overall housebuilding target for South Buckinghamshire, as set out in the Draft South East Plan is set at 1350 dwellings between 2006 and 2021 and is also unlikely to affect the SACs.

c) East of England Regional Transport Strategy

This strategy is part of the East of England Plan. As a whole the strategy is aimed at reducing the need to travel. A selection of relevant strategy objectives are listed in the fuller description of the strategy in Appendix 1. Objectives that are likely to have (indirect) impacts on the Burnham Beeches SAC are:

Policy T1: regional transport strategy objectives	
Objective 2: ‘enable infrastructure programmes and transport service provision to support both existing development (addressing problems of congestion) and that proposed in the spatial strategy (economic regeneration needs and further housing growth)’	
Schemes that may cause indirect impacts on Burnham Beeches SAC	<ul style="list-style-type: none"> • M25 widening to dual 4 junctions 16-31 • M1 dual junctions 10-13

Widening of the M25 between junctions 16 and 31 may cause an increase in accessibility to the roads that pass near to the Burnham Beeches SAC, such as the A355 as junction 16 is the closest junction to the SAC. Traffic heading west on the M40, to the north of Burnham Beeches may also increase. However, it is more problematic to predict any increase in traffic that may then (after the M40) head south on the A355. There may be a small increase in visitor numbers due to the M25 widening but the impacts are likely to be indirect and insignificant.

5.3.2

Appropriate Assessment of Draft East of England Plan:

‘Draft Revision to Regional Spatial Strategy for the East of England: Secretary of State’s Proposed Changes and Further Proposed Changes. Report of the Habitats Directive Assessment (under the Habitats Regulations)’ (October 2007)

Analysis of this document showed that the only Natura 2000 site in Hertfordshire which is likely to undergo a significant impact as a result of the East of England Plan is the Lee Valley SPA and Ramsar Site. Burnham Beeches SAC, which lies in Buckinghamshire, is not discussed in the document. The site is outside of the scope of the East of England Appropriate Assessment but is discussed in the following section, 5.3.3, as it is within the scope of the South East Plan.

5.3.3

Draft South East Plan

The South East Plan area includes covers the whole of South Eastern England, including the London Fringe and Hertfordshire. The Appropriate Assessment of the South East Plan recognised the following potential impacts on the Burnham Beeches SAC:

- Increased traffic, with localised air quality implications. Congestion on A355 drives cars on to local roads (e.g. Egypt Lane and Bedford Drive), spreading pollution effects.

- Increased recreation pressure due to the development of 1,800 new homes in South Buckinghamshire (Policy H1) may be damaging to this site given that it is one of the main open recreation areas in the county.
- General urbanisation effects from developments close to the site.

The Appropriate Assessment concluded that for Burnham Beeches it was not possible to rule out ‘adverse effects due to recreational pressure associated with developments under the South East Plan, either alone or in combination with other plans or projects’, and the same conclusion was given for urbanisation pressure.

5.3.4

South Bucks Core Strategy Preferred Options Development Plan Document/ Appropriate Assessment of South Bucks Core Strategy Preferred Options Document, April 2007

Principal development sites listed in the DPD in section 5.4, ‘Areas of Potential Change’ are in Beaconsfield, Taplow and Iver. The sites are on previously developed land and are approximately 3km, 4 and 8km away from Burnham Beeches SAC respectively. The closest site, Beaconsfield, lies on the opposite side of the M40 to Burnham Beeches. With respect to the SAC Taplow, the next closest brownfield site lies on the far side of another settlement (Burnham) to the north west of Slough. The location of these sites indicates that any environmental impacts, as listed in the following section, on the SAC would be indirect.

The Appropriate Assessment notes that although the Core Strategy is not likely to result in any significant impacts on the Burnham Beeches SAC, partners involved in the AA process expressed the following areas of concern regarding the SAC:

1. Farnham Common
2. A 355
3. Human impacts and reducing site isolation
4. Air quality
5. Housing

These issues are now discussed in further detail:

1. Development at Farnham Common

Farnham Common lies directly east of Burnham Beeches SAC. The South Bucks Preferred Options allow for a limited amount of increased retail floor space at Farnham Common. The Appropriate Assessment of this Preferred Options

Document listed the potential negative impacts of this development on Burnham Beeches, through: -

- Increased shopping and subsequent additional car generation in the area on the A355 which is within 200m of the SAC
- Congestion as a result of additional car use and requisite additional pollution via congestion
- The location of the centre which is within 200m of the site

However, the Appropriate Assessment argued that if this development did not occur, the Local Centre may be redesignated as a lower level centre, and local people may subsequently travel out from Farnham Common to the nearest shopping centre such as Slough or Beaconsfield, increasing car use and associated emissions along the A355. This is likely to have more impact on the Beeches SAC than maintaining the Local Centre. To prevent any likely significant effects happening in future to the SAC, the City of London (part owners of the SAC) and the District Council have agreed a consultation protocol for development in this area.

2. A355 Burnham Beeches

The A355 is a strategic transportation route through the district and passes within 200m of Burnham Beeches.

South Bucks Council and Buckinghamshire County Council have NO_x diffusion tubes located on the A355 and Burnham Beeches in order to ensure that A355 proposals will not contribute significantly over the longer-term to any adverse effects on the Beeches. Data collected by Buckinghamshire County Council so far, indicates that NO_x levels are below the critical level identified as the safe limit for vegetation health due to relatively low traffic flow at present. The Buckinghamshire County Council A355 Appropriate Assessment, together with the Burnham Beeches NNR Transport Strategy Summary 2006- 2011, have already identified, and are working on, various transportation measures to reduce air pollution impacts on the SAC.

3. Reducing human impacts and site isolation

According to the Appropriate Assessment, 'reducing isolation is likely to be a key factor in helping to sustain the very high biodiversity of invertebrates, lichens and other features at Burnham Beeches, and it is fundamental in ensuring that the SAC is ecologically linked with the surrounding landscape.' To help maintain this isolation, the AA concluded that the Core Strategy needed to consider issues such as locating new development away from European sites (such as Burnham Beeches) and consider the provision of open recreational space elsewhere to reduce pressure on Burnham Beeches.

Burnham Beeches management plan recognises that the eastern and southern edges of the site have become densely populated. To the west of the site, beyond land holdings owned by the national trust, land is predominantly agriculture and is protected by green belt policy, which precludes any further development, as is also the case to the north and south of the site. North of the City of London's (CoL) holding, the land, also part of the SAC, is in private ownership. The wider surrounding land comprises mixed woodland and agriculture, which creates a buffer to western, southern and northern areas of the site.

In addition, the Appropriate Assessment shows that the Core Strategy addresses the issue of water resources through, for example, seeking to maintain and enhance water supply and quality, together with its approach to Sustainable Urban Drainage Systems (SUDs) and other measures such as water conservation and recycling. The AA considered SUDs to be an important component part in protecting natural surface water drainage and other watercourses feeding Burnham Beeches at Farnham Common.

Burnham Beeches is also vulnerable to other human impacts, such as problems associated with dogs e.g. excrement and predation, stress on wildlife, localised dumping, fly tipping, vandalism especially nearer to residential areas and light pollution.

4. Air quality

As described in the description of the South East Plan, Burnham Beeches SAC was described as 'at risk' from pollution. Nitrogen deposition and ammonia were cited as having the most impact on Burnham Beeches. The Draft South East Plan AA described ammonia as a pollutant that needs to be tackled nationally, and

which, according to an EA report can be attributed to agricultural fertilisation for local impacts on Burnham Beeches. Nitrogen, however, needs to be tackled locally to the SAC. The South Bucks AA also notes that air quality does not necessarily relate to what is happening locally, as development or emissions happening elsewhere in the UK can equally have an effect on local air quality.

5. Housing

The South Bucks AA notes that the South Bucks Preferred Options states that levels of development outside of the Green Belt (e.g. Farnham Common) *will vary* depending on strategic factors such as the 'proximity to Burnham Beeches Special Area of Conservation.' The AA also recommends that SACs should be placed at the top of the hierarchy list when considering the importance of nature conservation sites.

The AA also notes that South Bucks District Council and the City on London (part owners of Burnham Beeches) agreed a protocol on the consultation of planning applications until the Core Strategy and other relevant DPD's are adopted, which is as follows: -

- Any form of development to the west of the A355 in Farnham common settlement
- Any development within 500m from Burnham Beeches SAC boundary (to its northern, western and southern sides)
- Any development with 2 or above dwellings and any commercial / retail related applications to the east of the A355 in Farnham common settlement

5.3.5

Hertfordshire Structure Plan, 1991-2011

This document provides dwelling figures that have already been described in the description of the draft East of England Plan above. It also describes sub-regional transport plans, such as the South West Herts Transportation Study (SWHTS) for Watford, Three Rivers and Bushey. The SWHTS is covered in this screening report in the description of the Hertfordshire Transport Plan described below. However, there are no specific elements of the plan that are not described in other documents and no expected significant adverse impacts on the Burnham Beeches SAC.

5.3.6

Hertfordshire Minerals Local Plan (MLP)/ Hertfordshire Minerals Local Plan Review, Appropriate Assessment Draft Screening Report

Overall, the impacts of the Minerals Local Plan on the Burnham Beeches SAC were considered to be:

- Increased mineral extraction and recycling/reuse of aggregates. Associated infrastructure requirements/traffic generation.
- After-use and changes in type and intensity of land use.
- Direct impacts unlikely due to distance from Hertfordshire although impacts could include increased air pollution (minerals transport), and water abstraction and pollution.
- Air pollution identified as a particular issue at Burnham Beeches SAC with links to regeneration failure. Also any impacts of drought on woodland may be exacerbated by increased abstraction. Increased air pollution and water abstraction/ decreased water quality may impact upon characteristic features such as lichen and mature trees (e.g. increased sensitivity to re-pollarding).

The Appropriate Assessment considered that these environmental impacts were addressed by existing aims and policies within MLP and also concluded that, due to distance, effects on Burnham Beeches SAC were unlikely but minor wording changes to Policy 17 of the MLP were recommended as a precautionary measure against impacts.

5.3.7

Hertfordshire Local Transport Plan (LTP) 2006/07 - 2010/11

The South West Hertfordshire Area Plan (part of the Herts LTP) and the remainder of the LTP, including the Five Year Implementation Programme which lists major schemes, contain no policies that are likely to cause harmful impacts on Burnham Beeches SAC.

5.3.8

Analysis of the London Plan, Spatial Development Strategy for Greater London

The following policy in the London Plan was deemed to have possible combined impacts with the Three Rivers Issues and Options that may have potentially negative consequences for Burnham Beeches SAC:

Policy 3C.5 London's international, national and regional transport links

The Mayor will work with strategic partners to:

- improve and expand London's international and national transport links for passengers and freight, to support London's development; to achieve the spatial priorities of the plan, especially to support growth in the Thames Gateway; and to achieve regeneration benefits while mitigating adverse environmental impacts
- seek improved access to airports, ports and international rail termini by public transport
- develop proposals with neighbouring regions to allow long distance traffic, especially rail freight, to bypass London
- improve links between London and the surrounding regions.

5.3.9

The London Plan, Sub-Regional Development Framework: North London, 2006

No specific policies were identified that posed significant direct threats to the Burnham Beeches SAC either alone or in-combination with other plans. However, it should be noted that the population of North London was 1,040,000 in 2001 and is expected to grow by at least 7% up to 2016. This will put additional pressure on existing resources and infrastructure in North London and will also affect the surrounding region, for example by altering commuting and tourist trip patterns. Future usage of the M25 and the access roads to and from it will also affect Hertfordshire. In the 'Industry and Warehousing' section of the SRDF it is also noted that the needs of Strategic Logistics Parks for goods distribution should be considered in North London in conjunction with Hertfordshire.

5.3.10

Appropriate Assessment Screening Report: 'Draft Further Alterations to the London Plan', 2006

Although the Burnham Beeches SAC is included in the Appropriate Assessment screening, no adverse impacts specifically affecting this site were reported. The only policy of the London Plan described in the screening report that may be relevant to Burnham Beeches SAC is policy 3C.5, 'London's international, national and regional transport links.' The assessment considered that this policy may affect SACs indirectly through changes in air quality. As Burnham Beeches SAC is vulnerable to air pollution in the form of sulphur and nitrogen oxides, this policy should be borne in mind when considering in-combination effects.

5.3.11

*Appropriate Assessment Screening for the Hertfordshire Waste Development Plan Documents/
Waste Core Strategy Preferred Options Addendum*

The Herts Waste DPDs Appropriate Assessment Screening noted that, as Nitrogen and acid deposition had already exceeded the critical load for the site, ‘impacts are possible from the transport of waste through Buckinghamshire, although this is not currently proposed in the Draft Waste DPD.’ The following mitigation measure was proposed:

Suggested avoidance measures: Burnham Beeches SAC

Provide enough waste management sites in Hertfordshire so that the county is self-sufficient in terms of waste management, and ensure that these sites are developed for waste management. This will reduce the need to export waste from the county, with air pollution effects on Burnham Beeches SAC.

Source: *Appropriate Assessment Screening for the Hertfordshire Waste Development Plan Documents* (Levett Therivel, Treweek, 2007).

It was therefore concluded that, providing the above mitigation was undertaken by Herts County Council, there were unlikely to be any in-combination effects between the Herts Waste DPDs and Three Rivers’ Core Strategy Issues and Options.

5.3.12

*Report on the likely significant effects of proposed waste sites on SACs/SPAs in
Buckinghamshire and surrounding area (Appropriate Assessment Screening)*

Two waste sites were identified in the Bucks Proposed Waste Sites Appropriate Assessment Screening as having a risk of causing possible impacts on Burnham Beeches SAC site integrity:

- Broad Lane and Springfield Farm (2.3km SE of SAC)
- Wapsey’s Wood and Hyde Farm (1.9km SW of SAC)

Proposed works at these waste sites was assessed as having the ‘potential to have a likely significant effect on the SAC on the basis of PM₁₀ emissions from EfW (Energy from Waste) and AD (Anaerobic Digestion) facilities’. However, the Herts Waste DPDs Appropriate Assessment screening concludes that the siting of a Mechanical Biological Treatment facility (instead of EfW and AD) at both sites would mean that significant effects on the conservation objectives of Burnham Beeches SAC would be unlikely.

In agreement with Natural England it was concluded that the impacts identified in the Bucks Proposed Waste Sites Appropriate Assessment Screening, if mitigated by Bucks County Council, as suggested above, would not cause any in-combination effects with Three Rivers' Core Strategy Issues and Options.

5.3.13

A355 Route Strategy Appropriate Assessment (Buckinghamshire County Council)

The stated aim of the A355 Appropriate Assessment is to reduce traffic levels in the area by 'encouraging the use of the trunk road network whilst also ensuring that traffic does not divert off the A355 onto less suitable roads.' The key elements of the route strategy are as follow:

- Review the role of the A355 within the strategic highway network
- Improve safety and address the casualty record
- Reduce vehicular speeds
- Reduce noise, light and air pollution
- Improve amenity and reduce severance for pedestrians and cyclists
- Improve the safety of routes to schools
- Improve public transport links
- Reduce impact of HGVs

The overall conclusion of the Appropriate Assessment was that the A355 Route Strategy was 'unlikely to adversely affect the integrity of the Burnham Beeches site. It was therefore concluded (in this report) that there were unlikely to be any in-combination effects between the A355 Route Strategy and Three Rivers' Core Strategy Issues and Options.

5.4

Possible Combined Impacts

Policies that affect the usage of the A355, which runs within 200 metres of Burnham Beeches SAC, as described in the South East Plan and the South Bucks Core Strategy Preferred Options DPD, will inevitably affect recreational and air pollution pressure on the SAC. Development at Farnham Common and in the wider region, such as the house-building planned for South Buckinghamshire, and specific proposed developments at Bishops Centre and Wilton Park, will also put additional recreational pressure on the SAC. Strategic transport issues such as the Croxley Rail Link in the Three Rivers CSIOP may also indirectly lead to more tourist pressure on the SAC.

Increased pressures on the SAC may include, for example, trampling and litter, or come in the form of air pollution effects on the SAC. Air pollution is currently being monitored by NOx detectors along the A355 and in Burnham Beeches itself.

Predictions of future private transport growth in the Three Rivers District will also need to be regularly monitored, and if necessary acted upon in order to mitigate any concomitant effects on the SAC, as already described. For example, the Three Rivers Transport Background Study (listed in Appendix 1) shows that, although the District has seen the lowest increase of traffic in Hertfordshire, traffic numbers are still expected to rise, as shown in the following table:

Table 6: Local, Regional and National Traffic Forecasts, 2001 Base Year

	2011 (% increase)	2021 (% increase)
Three Rivers	10.5	20.7
Hertfordshire	16.3	30.8
Eastern Region	17.7	34.7
National (GB)	16.7	31.3
Source: <i>Three Rivers Transport Background Study (2007)</i>		

5.4.1

Combined impacts of development on Regional Water Resources

South East England is a densely populated region with low rainfall. Climate change may also cause water availability to decline in this relatively dry region⁹. It has been recognised by the Environment Agency¹⁰ that development in Hertfordshire area would have a negative impact on already stressed water resources. Groundwater around Maidenhead and all of the Colne is closed to abstraction and is already over-abstracted. All other areas in the south east have resource availability statuses that are either over-licensed or no water available. Any large abstractions in this region

⁹ Environment Agency: Southern Region: Water and Development in the South East. Available on <http://www.environment-agency.gov.uk/regions/southern/1458706/?lang=en> Accessed on 2/12/07

¹⁰ Environment Agency, *pers. comm.*, 2/12/07, 3/12/07.

would be detrimental to the water resources. Unconfined Chalk aquifers (in the Thame and South Chilterns CAMS) would be in hydraulic continuity with surface water features (i.e. SSSI's & SAC's). Any large surface water and groundwater abstractions in this area that would be granted (in less stressed catchments) would probably only be given in times of high flows. Therefore, large storage reservoirs would need to be considered.

In terms of water resource impacts on Burnham Beeches SAC, as stated in section 3.3.4, 'Vulnerability', the SAC is not vulnerable to water abstraction in the region. This is reiterated in the *Thame and South Chilterns Catchment Abstraction Management Strategy*,¹¹ where the SAC is described as being 'not considered sensitive to water abstraction'. The SAC is also not listed on the North East Thames Restoring Sustainable Abstraction catalogue¹², which determines the vulnerability of specific areas to water shortages. A review undertaken by the Environment Agency shows that although the site is sensitive to changing water levels it is 'not sensitive to current abstractions'¹³. Nevertheless, mitigation measures to counter water shortages are required on a regional basis and this subject will also be addressed in the Sustainability Appraisal/ Strategic Environmental Assessment of the Three Rivers CSIOP. Mitigation measures are described in section 6.2.

¹¹ Water Abstraction: getting the balance right. Thame and South Chilterns Catchment Abstraction Management Strategy, March 2007.

¹² Environment Agency. 2007. Email communication, *pers. comm.*, 4/12/07.

¹³ Environment Agency. 2007. Email communication, *pers. comm.*, 9/12/07.

6 Final screening assessment

6.1 *Summary of the Assessment*

Table 1 in the Non-technical summary at the beginning of this report summarises the results of the analysis of the potential impacts of the Three Rivers CSIOP on the integrity of the Burnham Beeches SAC, including ‘in combination’ impacts with other plans.

6.2 *Possible mitigation measures*

Increased development in South Herts and the surrounding counties and increased accessibility (e.g. Croyley Rail Link, M25 widening) to Burnham Beeches and other SACs were not considered to lead to significant adverse impacts on Burnham Beeches SAC. However, two issues have been selected as being suitable for mitigation as a precautionary measure, recreation and water.

6.2.1 *Recreation impacts: mitigation*

To reduce recreational impacts caused by the Three Rivers CSIOP, mitigation could be considered. For example, Three Rivers District Council and other councils in the region could consider providing new or improving on existing ‘Suitable Accessible Natural Green Spaces’ (SANGS)¹⁴. For example, improvement (e.g. habitat enhancement) to some areas of green space may make them more attractive to recreational users in order to divert some recreational pressure away from Burnham Beeches SAC. The following table shows a case study of the effective use of SANGS:

Table 7: SANGS Case Study – Thames Basin Heaths SPA

Role of Suitable Accessible Natural Green Space (SANGS): to divert visitors from visiting the Thames Basin Heath Special Protection Area (SPA).

Background

- SPA consists of 13 SSSIs comprising varied habitats. SPA was designated in 2005 under the Habitats Regulations (1994) to protect populations of three internationally threatened bird species that use the heathlands: woodlark, nightjar and Dartford warbler.
- Threats to SPA: e.g. disturbance during breeding period (February to August)

¹⁴ Guidelines for the creation of Suitable Accessible Natural Green Space. Natural England, 03.07.07 (Appendix 4 of this report). Further information on SANGS implementation in South Hertfordshire is available from Jon Fewings (Natural England): jon.fewings@naturalengland.org.uk

by visitors, including freely roaming dogs.

- Recent survey showed that 83% of visitors to the SPA arrived by car
- Planning Policy Guidance (PPG) Note 17 requires local authorities to set green space standards locally but these should 'include aspects of quantity, quality and accessibility'⁹.

Mitigation

The Thames Basin Heath draft delivery plan was created to provide advice on how open space provision can ensure that any potential effect on the SPA is fully mitigated.

SANGS guidelines were created, primarily based on visitor surveys carried out at heathland sites within the Thames Basin Heaths area or within the Dorset Heathlands. Guidelines follow a checklist for ensuring the quality of the SANGs, e.g. ensuring car parking, paths, habitats, safety and circular walks are adequately catered for.

Source: based on 'Guidelines for the creation of Suitable Accessible Natural Green Space. Natural England, 03.07.07' (provided in Appendix 4 of this report).

6.2.2

Water resource impacts: mitigation

The following mitigation measure has been adapted from the Environment Agency's water resource planning that the Agency prepared in response to development proposed in the South East Plan¹⁵:

Improved water efficiency/ changing behaviour and attitude - new dwellings will need to be more water efficient in their design. Water must also be used more wisely in existing homes. Water meters can be used in existing properties and appliances can be replaced with more water efficient ones over time. The London Plan¹⁶ has imposed a water use target for residential development (arrived at following extensive research for the Mayor's Water Action Framework and the Sustainable Design and Construction SPG). The target is 110 litres per person per day and is to be achieved through using water efficient fixtures and fittings, including white goods.

¹⁵ Environment Agency: Southern Region: Water and Development in the South East. Available on <http://www.environment-agency.gov.uk/regions/southern/1458706/?lang=e> Accessed on 2/12/07

¹⁶ Draft Further Alterations to the London (Spatial Development Strategy for Greater London), September 2006

All counties and districts in the South East will need to consider how best to cause minimal impact on available water resources. This may include decisions on where new development should be located. Such decisions could be made in consultation with the Environment Agency and Natural England as ultimately the Environment Agency would need to issue water abstraction licenses. The mitigation measure described above is considered to be a best practice measure to be considered by Three Rivers District Council but is not specifically recommended to protect the integrity of Burnham Beeches SAC.

6.3

The Requirements for further AA

The Three Rivers District Council Issues and Options are unlikely to cause any direct or significant adverse impacts on the Burnham Beeches SAC, either alone or in combination with other plans. The nearest proposed strategic housing and employment locations at Maple Cross (illustrated in Appendix 3) in the Three Rivers CSIOP are approximately 9.5km away from the SAC and as a result are unlikely to cause any direct impacts on it. Full Appropriate Assessment reports have already been carried out on higher tier plans such as the South East Plan and South Buckinghamshire Core Strategy Preferred Options and these have informed the screening process for this report. As this screening report has shown, measures have already been taken to reduce human impacts on Burnham Beeches, such as air quality monitoring stations and development control measures for land that is in close proximity to the SAC. It is therefore considered that a full Appropriate Assessment will not be required for the Three Rivers District Council Issues and Options. Due to the distance of the nearest proposed strategic housing and employment locations in the Three Rivers CSIOP to Burnham Beeches SAC, it is also considered that this AA screening report will suffice for any future Site Allocations and other plans and policies produced by Three Rivers District Council, providing the Allocations and plans/ policies relate to areas within the spatial boundaries set by the Three Rivers Core Strategy. Any future plans and policies that are likely to cause an increase in key impacts (i.e. recreation, air pollution) or other impacts that might adversely affect the conservation objectives of the SAC may need to be examined as either an addendum to this screening report or as part of a full Appropriate Assessment.

Glossary

Core Strategy Issues and Options Development Plan (CSIOP).	The Core Strategy is a key part of each council's Local Development Framework (LDF). Issues and Options Development Plans set out possible development options (e.g. location options for new employment or residential development sites) for the council's administrative region.
Development Plan Document (DPD)	A DPD sets out development options for the region and mirrors the key development goals of the LDF. Examples of DPDs include the Core Strategy (as used in this report), Site Allocations and Area Action Plans.
Appropriate Assessment (AA)	An assessment of the potential impacts of a proposed plan on a Natura 2000 site, either alone or in combination with other plans
Natura 2000	A network of European-wide sites designated under the Habitats Directive (92/43/EEC), comprising Special Areas of Conservation, Special Protection Areas and Ramsar sites. Only Special Areas of Conservation are relevant to this report.
Special Area of Conservation (SAC)	SACs are designated to protect the 220 habitats and approximately 1000 species listed in Annex I and II of the Habitats Directive which are considered to be of European interest following criteria given in the directive. Each SAC has various conservation objectives.
Site of Special Scientific Interest (SSSI)	SSSIs are designated by Natural England. They underpin other nature conservation designations, such as Special Protection Areas and Special Areas of Conservation. For example, Chilterns Beechwoods SAC comprises several SSSIs. SSSIs can be of biological interest (Biological SSSIs), or geological interest, (Geological SSSIs). A minority of sites are notified for both biological and geological interest.

