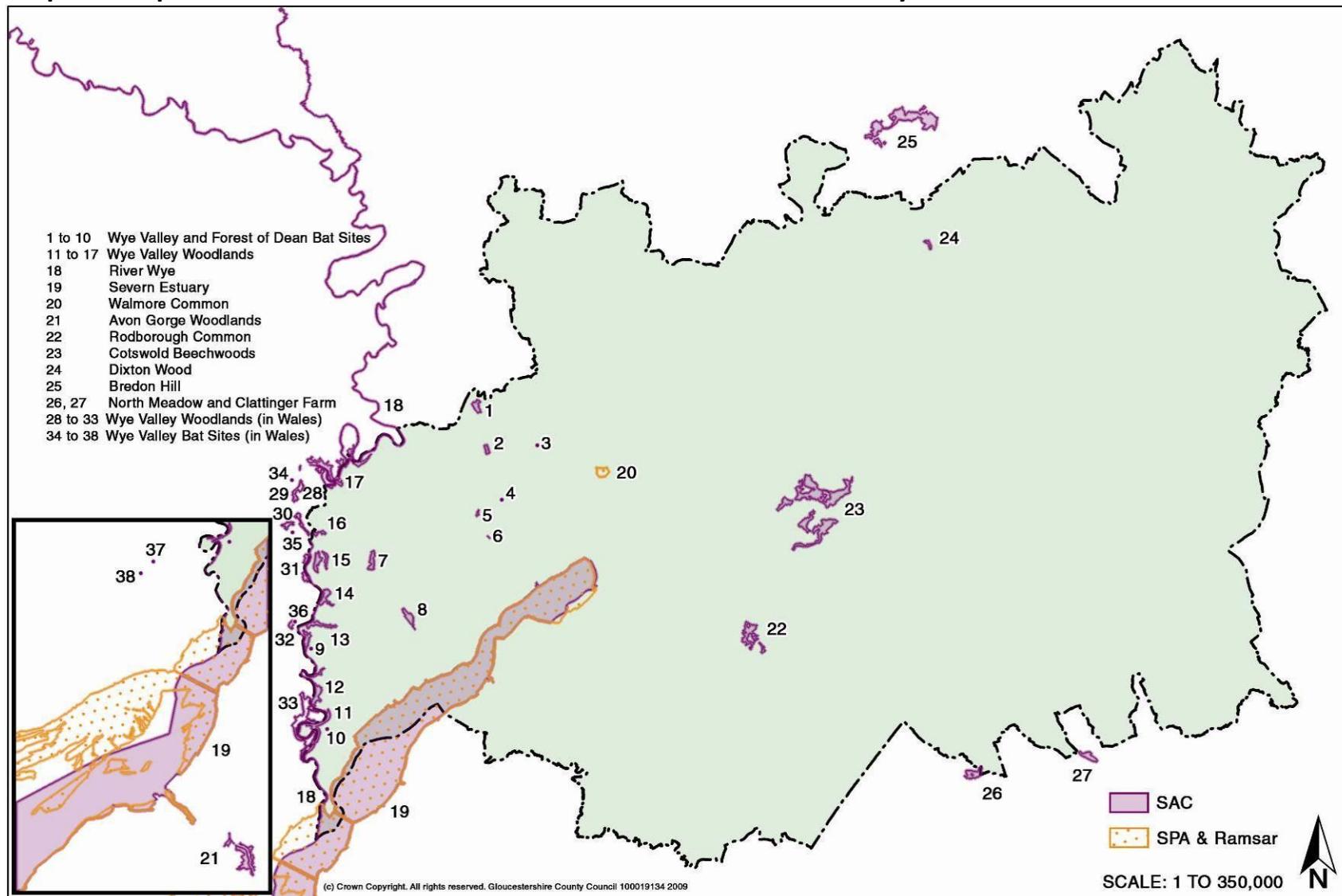


***Planning for the Protection of
European Sites***

**Habitat Regulations Assessment (HRA) Screening
Report for WCS Site Options
October 2009**

Map 1. European sites in and within 15 km of Gloucestershire's boundary



Contents	Page
PART ONE – BACKGROUND	3
1. Introduction / the purpose of HRA / AA for land use plans	3
2. HRA guidance and best practice	4
3. HRA key stages	6
4. Evidence gathering for HRA and links to Sustainability Appraisal (SA)	7
5. HRA screening of the Waste Core Strategy (WCS) to date	7
6. Screening methodology	7
PART TWO – THE HRA SCREENING ASSESSMENT	9
7. European sites in and close to Gloucestershire and existing waste management sites / development	9
8. General characteristics of waste management development and potential impacts	9
9. Screening task A	13
10. Screening task B	30
11. Screening task C	80
12. Screening task D	106
13. Conclusion / Contacts	107

Appendices	108
Appendix A: Detailed maps of 13 proposed waste sites	108
Appendix B: All European sites in and close to Gloucestershire and those within a 10 km radius of proposed 'Zone C' waste sites	115
Appendix C: All European sites in and close to Gloucestershire and those within a 10 km radius of proposed 'Outside Zone C' waste sites	125

PART ONE – BACKGROUND

1. Introduction – the purpose of HRA / AA for land use plans

This report is the Habitat Regulations Assessment (HRA) on Gloucestershire County Council's Waste Core Strategy Site Options Paper (October 2009). Its primary aim is to ensure that the plan and plan options that have been put forward (including sites) are appropriately screened in terms of their potential impacts on protected European sites in and close to Gloucestershire.

The European Union (EU) *Natura 2000* network provides ecological infrastructure for the protection of sites which are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the member states of the EU. These sites, which are also referred to as 'European sites' consist of Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Offshore Marine Sites (OMS). Note: there are no OMS designated at present. Ramsar sites (which are internationally important areas of wetland) are treated as if they were European sites in accordance with the Government's policy statement of November 2000 and the DEFRA Circular 01/2005 (paragraph 5).

The European sites in Gloucestershire or within 15 km of its administrative boundary are:

- **Rodborough Common SAC** – (Stroud)
- **Dixton Wood SAC** – (Tewkesbury)
- **Wye Valley and Forest of Dean Bat Sites SAC** – (Forest of Dean, Monmouthshire)
- **River Wye SAC** – (Forest of Dean, Monmouthshire, Herefordshire, Powys)
- **Wye Valley Woodlands SAC** – (Forest of Dean, Monmouthshire, Herefordshire)
- **North Meadow and Clattinger Farm SAC** – (Wiltshire)
- **Cotswold Beechwoods SAC** – (Stroud, Cotswold, Tewkesbury)
- **Bredon Hill SAC** – (Worcestershire)
- **Walmore Common SPA**, Ramsar – (Forest of Dean)
- **Severn Estuary SPA, SAC***, Ramsar – (Stroud, Forest of Dean, South Gloucestershire, Monmouthshire, Bristol City, North Somerset, Newport, Cardiff, Vale of Glamorgan)
- **Avon Gorge Woodlands SAC** – (City of Bristol)

* At the time of writing the Severn Estuary has been accepted by the European Commission as a Site of Community Importance (SCI) but formal notices have not yet been issued (expected to take place in later in 2009). Given the imminent notification of the SAC the Severn Estuary SCI is referred to as SAC throughout this document).

(Note: See Map 1 on Page 1 of this report for the broad locations of these sites. Other maps are available in the latest HRA Baseline report (Update 2), Part 2 of this report as well as the appendices).

The purpose of the HRA of land use plans is to ensure that the protection of the integrity of European sites is a part of the planning process at a regional and local level. The process aims to ensure that proposed plans or projects, either individually or in combination with other plans and projects do not have significant¹ effects.

¹ The determination of whether an effect is 'significant' is based on the designated interest features and conservation objectives of the *Natura 2000* sites. If any impact on any conservation objective is assessed as

In some reports HRA may be referred to as “Appropriate Assessment” (AA); but in fact AA is a later stage within the wider Habitat Regulations Assessment (HRA) process - see Table 1 on Page 5. The requirement for AA of plans or projects is outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (“Habitats Directive”). In 2007, this requirement was transposed into UK law in Part IV A of the Habitats Regulations (The Conservation (Natural Habitats & c.) (Amendment) (England and Wales) Regulations 2007).

The Habitats Directive applies a precautionary principle, and plans can only be permitted once it has been shown that there will be no adverse effect on the integrity² of European sites. It is possible that plans may still be permitted if there is a lack of viable alternatives and there are imperative reasons of overriding public interest as to why they should go ahead. However, previous rulings show that these cases are rare and in this scenario compensatory measures will need to be implemented to ensure the overall integrity of the site network.

2. HRA guidance and best practice

General guidance

The application of HRA to Local Development Documents (LDDs) is still an emerging field. This report has been prepared on the basis of the best current guidance and advice from government as well as emerging best practice. The main guidance sources are listed below:

- *Planning for the Protection of European Sites: Appropriate Assessment* – DCLG, (2006).
- *Appropriate Assessment of Plans* – Scott Wilson, Levett-Therivel, Treweek Environmental Consultants, Land Use Consultants, September (2006).
- Dodd A.M., Cleary B.E., Dawkins J.S., Byron H.J., Palframan L.J. and Williams G.M. (2007) *The Appropriate Assessment of Spatial Plans in England: a guide to why, when and how to do it*. The RSPB, Sandy.
- Specific advice from Natural England (2009).

Guidance on buffer zones

The Environment Agency (EA) have produced a handbook (not published but available as digital files on request) on the EU Habitats Directive which is used primarily for the review of already permitted development. It indicates that, in looking at potential impacts of waste facilities on European sites, the following are acceptable buffer zones for use in a screening assessment:

A likely significant effect may occur where Natura 2000 and Ramsar sites lie:

- Within 10 km of a proposed thermal treatment facility.
- Within 2 km of a proposed landfill site, or 5 km if they could attract corvids or gulls, or could be hydraulically connected to an emission.
- Within 1 km of all other proposed waste sites, or could also be connected with them hydraulically.

In April 2009 the Waste Planning Authority (WPA) wrote to Natural England (NE) asking if this EA approach would be appropriate for the initial HRA screening of waste sites. A letter of reply was received on 19th June 2009 which stated that the buffer zone approach could be used for the initial screening process but ‘you have to take into account that SACs and Ramsars are designated for different reasons, and therefore have widely differing sensitivities. ...We reserve the right, on

being adverse then it should be treated as significant and where information is limited then the precautionary principle applies.

² Integrity in this context is defined as the sites’ coherence, ecological structure and function across the whole area that enables it to sustain the habitat, complex of habitats and /or levels of populations of species for which it was classified (ODPM, 2005).

consultation of a specific site allocation, to require a full Appropriate Assessment on the basis of significant effect *even when the sites fall outside of the proposed buffer zones*'.

3. HRA key stages

The following information in Table 1 highlights the key stages of the HRA process.

<i>Table 1. Key Stages of the HRA Process</i>	
Stage 1	
Screening likely significant effects	<ul style="list-style-type: none"> ◆ Identify European sites in and around the plan area (Primarily achieved through this Baseline Report, but also considered through Screening Report) ◆ Examine conservation objectives (Primarily achieved through this Baseline Report, but also considered through Screening Report) ◆ Identify potential effects on Natura 2000 sites (Initial work to be undertaken by the County Ecologist) ◆ Take account of the potential 'in-combination' effects of other plans and projects (as highlighted in this Baseline Report)
	ACTION ↓
	<ul style="list-style-type: none"> ◆ If no effects likely – no significant effect should be reported ◆ If effects are judged likely or some uncertainty exists – the precautionary principle applies thus proceed to Stage 2
Stage 2	
Appropriate Assessment (AA)	<ul style="list-style-type: none"> ◆ Collate information on sites and evaluate impacts in light of conservation objectives ◆ Consider how the plan 'in-combination' with other plans and projects will interact when implemented (Note: this is the Appropriate Assessment process) ◆ Consider how effects on site integrity could be avoided by changes to the plan and any alternatives ◆ Develop mitigation measures including details about timescales and mechanisms
	ACTION ↓
	<ul style="list-style-type: none"> ◆ Report outcomes of AA and develop monitoring strategies ◆ If effects remain following the consideration of alternatives and development of mitigation measures proceed to Stage 3
Stage 3	
Assessment where no alternatives and adverse impacts remain	<ul style="list-style-type: none"> ◆ Identify if there are 'imperative reasons of overriding public interest' (IROPI) ◆ If IROPI can be met, identify / develop potential compensatory measures ◆ Note: IROPI is a difficult test to pass with onerous requirements – tested at Dibden – unsuccessfully

The identification of background or 'baseline' information on the European sites in and close to Gloucestershire has largely been covered by a series of regularly updated 'Evidence gathering / Baseline Reports.

In August 2006 the Department for Communities and Local Government (DCLG) published Draft Guidance on AA recommending that in terms of evidence gathering it would be best practice to collect information on :

1. European sites within and outside the plan area potentially affected;
2. The characteristics of these European sites;
3. Their conservation objectives; and
4. Other relevant plans or projects.

This information (Points 1 to 4) have all been covered in the aforementioned HRA baseline reports. The latest report (Update 2) was finalised in July 2009 and should be read in conjunction with this report. It is available at the following web address:

<http://www.goucestershire.gov.uk/hra>

4. Evidence gathering for HRA and links to the Sustainability Appraisal (SA)

The Gloucestershire Minerals & Waste Development Framework Sustainability Appraisal (SA) Framework (comprising of SA Reports and a series of regularly updated SA Context Reports and Scoping Reports)* contains a large volume of Gloucestershire focused environmental data and specifically details the sites and species protected under the Habitats Directive (92/43/EEC) and the Birds Directive (79/409/EEC).

To give an example of the links between HRA and SA; waste site SA Objective 8 seeks to "...protect, conserve and enhance biodiversity in Gloucestershire". This Objective has a number of more detailed sub-questions, including: "What are the potential impacts on sites which are Internationally and Nationally designated?" Thus the evidence gathering for the HRA started with, and is clearly linked to, the SA Framework process.

*Original and updated SA Reports are available at the following website address:

<http://www.goucestershire.gov.uk/SA>

5. HRA screening of the WCS to date

All the options within the previous stages of the WCS (Issues & Options and Preferred Options) have been screened and assessed in terms of the likely effects on European sites. This was a broad assessment as the options that were being tested were themselves 'broad', and certainly not site specific. However, these assessments are clearly relevant to this report and for reference they are available at:

<http://www.goucestershire.gov.uk/hra>

6. Screening Methodology

In line with guidance and best practice, the screening assessment in this report will combine both European site focused screening and plan focused screening. The following tasks (within the broader outlines of Stage 1 of Table 1) will be undertaken:

■ Screening Task A:

Identification of Natura 2000 sites & their geographic boundaries, qualifying features, conservation objectives, and vulnerabilities / sensitivities. This will be a brief review due to the fact that this data is contained in detail in the recently updated (June 2009) HRA Evidence Gathering / Baseline Report (Update 2).

■ Screening Task B:

Screen WCS strategy policies (including sites) and identify likely effects. This will involve the use of GIS buffering as well as County Ecologist expertise to consider pathways and impacts.

■ Screening Task C:

Consider other plans, programmes or projects that may have in-combination effects with the WCS.

■ Screening Task D:

Produce a summary of screening outcomes and make recommendations.

PART TWO – THE HRA SCREENING ASSESSMENT

7. European sites in and close to Gloucestershire and existing waste management sites / development

Under regulation 50 of the Conservation (Natural Habitats &c) Regulations 1994 (“the Habitats Regulations”), a competent authority must review any extant planning permissions affecting a Special Protection Area or Special Area of Conservation. Gloucestershire County Council has already reviewed over 100 extant waste, minerals and other consents to determine if they could adversely affect the integrity of a European or Ramsar site. An Appropriate Assessment was required in the case of only one planning permission. The consent at Cerney Wick in the Cotswold Water Park was confirmed with a variation to the restoration scheme so that there would be no adverse effect on the integrity of North Meadow & Clattinger Farm SAC.

8. General characteristics of waste management development and potential impacts

The Government’s Planning Policy Statement 10 (PPS10) Planning for Sustainable Waste Management aims to “...help secure the recovery or disposal of waste without endangering human health and without harming the environment...”

Annex E of PPS10 outlines key factors to consider in terms of testing the suitability of sites. These factors give an indication of the sort of general environmental impacts of waste management sites and facilities. See Table 2 below.

Table 2. PPS10 Annex E Locational Criteria

Factor:	Further explanation:
Protection of water resources	Considerations will include the proximity of vulnerable surface and groundwater. For landfill or land-raising, geological conditions and the behaviour of surface water and groundwater should be assessed both for the site under consideration and the surrounding area. The suitability of locations subject to flooding will also need particular care
Land instability	Locations, and / or the environs of locations, that are liable to be affected by land instability will not normally be suitable for waste management facilities
Visual intrusion	Considerations will include (i) the setting of the proposed location and the potential for design-led solutions to produce acceptable development; (ii) the need to protect landscapes of national importance (National Parks, Areas of Outstanding Natural Beauty and Heritage Coasts)
Nature conservation	Considerations will include any adverse effect on a site of international importance for nature conservation (Special Protection Areas, Special Areas of Conservation and RAMSAR Sites) or a site with a nationally recognised designation (Sites of Special Scientific Interest, National Nature Reserves)

Historic environment	Considerations will include any adverse effect on a site of international importance (World Heritage Sites) or a site or building with a nationally recognised designation (Scheduled Monuments, Conservation Areas, Listed Buildings, Registered Historic Battlefields and Registered Parks and Gardens)
Traffic and access	Considerations will include the suitability of the road network and the extent to which access would require reliance on local roads
Air emissions, including dust	Considerations will include the proximity of sensitive receptors and the extent to which adverse emissions can be controlled through the use of appropriate and well-maintained and managed equipment and vehicles
Odours	Considerations will include the proximity of sensitive receptors and the extent to which adverse odours can be controlled through the use of appropriate and well-maintained and managed equipment
Vermin and birds	Considerations will include the proximity of sensitive receptors. Some waste management facilities, especially landfills which accept putrescible waste, can attract vermin and birds. The numbers, and movements of some species of birds, may be influenced by the distribution of landfill sites. Where birds congregate in large numbers, they may be a major nuisance to people living nearby. They can also provide a hazard to aircraft at locations close to aerodromes or low flying areas. As part of the aerodrome safeguarding procedure (ODPM Circular 1/200316) local planning authorities are required to consult aerodrome operators on proposed developments likely to attract birds. Consultation arrangements apply within safeguarded areas (which should be shown on the proposals map in the local development framework). The primary aim is to guard against new or increased hazards caused by development. The most important types of development in this respect include facilities intended for the handling, compaction, treatment or disposal of household or commercial wastes
Noise and vibration	Considerations will include the proximity of sensitive receptors. The operation of large waste management facilities in particular can produce noise both inside and outside buildings. Intermittent and sustained operating noise may be a problem if not kept to acceptable levels and particularly if night-time working is involved
Litter	Litter can be a concern at some waste management facilities
Potential land use conflict	Likely proposed development in the vicinity of the location under consideration should be taken into account in considering site suitability and the envisaged waste management facility

Related to Table 2 above, Table 3 below considers some of the more general environmental impacts that are associated with waste management facilities of different types. The information is taken from *Gloucestershire County Council Waste Core Strategy Strategic Waste Sites Sustainability Appraisal (SA) Report* prepared by *Land Use Consultants* in April 2009.

Table 3. Potential Negative Effects of Waste Management Facilities
General significant effects (Gloucestershire context)
<p>In general, the majority of potential significant negative effects, which may occur from the construction and operation of new waste management facilities on the potential waste site options (alone or in combination) are in relation to:</p> <ul style="list-style-type: none"> • Landtake (and potential loss of good quality soil/land, Public Rights of Way (PROW), or loss, fragmentation or damage to habitat for international or nationally designated nature conservation sites). • Air emissions from road traffic to and from the waste sites (including dust, e.g. or waste materials being broken up into particles through the transfer of waste) and emissions (combustion gases, e.g. oxides of nitrogen (NO^x), sulphur dioxide (SO^2) and ammonia (NH^3)) from some recovery facilities. • Visual impact (on landscape (AONB), townscape and heritage assets such as Scheduled Ancient Monuments and Listed Buildings). • Physical damage (to geological or archaeological assets). • Flood risk through development in areas identified at high risk of flooding. <p>It is likely that many of these potential effects would be reduced through successful implementation of robust development control policies within the Waste Core Strategy or an associated DPD, or through a planning application EIA, requiring good practice techniques by the waste industry. It is therefore assumed that the planning application process should ensure that any proposals for waste management facilities on the final allocated sites will seek to mitigate these potential significant effects through well designed and operated facilities. Most waste management facilities will also need to meet the high standards of design and operation to obtain an Environmental Permit (EP) (formerly Pollution Prevention and Control (PPC) permits) regulated by the Environment Agency. The requirement to meet EP/PPC permitting standards (including emissions to air, land and water, energy efficiency, noise, vibration and heat and accident prevention) should ensure that design and operation of waste facilities minimises most of the potentially significant effects above.</p>
Potential effects on air quality
<p>Proposals for all types of waste management facilities could contribute to increasing air pollution in the County with regards to waste transportation by road, as well as any air pollution associated with the operation of the facility and processes used, such as dust and odour if waste is stored in open areas, bio-aerosols from biological process and acid gases/CO^2/dioxins and furans from thermal processes. The type and extent of air pollution (e.g. from dust or other emissions) will depend on the type of facility proposed on the site.</p> <p>Development of waste facilities will need to meet the high standards of design and operation required to obtain Pollution Prevention and Control (PPC) permits and the Environmental Permits (EP) regulated and enforced by the Environment Agency. Emissions limits are set by the EC Waste Incineration Directive (2000), and waste management facilities are required under their PPC permits</p>

and EPs to operate within these limits. The requirement to meet PPC/EP permitting standards (including emissions to air, land and water, energy efficiency, noise, vibration and heat and accident prevention) should ensure that design and operation of waste facilities minimises any potentially significant effects on human health and the environment. In addition, many waste management facilities will meet the criteria that require a site-specific environmental impact assessment to be undertaken to accompany the planning application, which would look at the potential impacts and mitigation measures in more detail, and influence the conditions placed on the planning permission.

The report: *Review of Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Wastes. Prepared for Defra by Enviro's and University of Birmingham, May 2004.* showed that management of municipal solid waste accounts for less than 2.5% of all emissions for which data are available (including carbon dioxide and toxic gases but excluding methane). These conclusions mean that the overall scale of direct effects of releases to air from waste management practices is relatively small compared with emissions from other sectors such as transport. The contributions of municipal solid waste to air emissions of methane are higher (27% of UK total) but these arise mostly from landfill.

Any increases in road transport of waste will lead to increases in local air pollution and emissions of CO₂. The further vehicles transporting waste have to travel along local roads (i.e. not on the primary road network), the higher the potential for more localised air pollution as they are likely to travel more slowly on local roads. In addition, if the waste facility is within, or vehicles are travelling through, AQMAs where existing air pollution issues have been identified, there is more potential for negative effects on air quality.

Potential effects on water

The EU Water Framework Directive applies to all surface freshwater bodies (including lakes, streams and rivers), groundwaters, groundwater dependent ecosystems, estuaries and coastal waters out to one mile from low-water. It aims to improve inland and coastal waters and protect them from diffuse pollution in urban and rural areas; increase the sustainable use of water as a natural resource and create better habitats for wildlife that lives in and around water. The extent to which a waste management facility will affect ground and surface water on a potential site depends on the type of facility. As stated in: *Planning for Waste Management Facilities: A Research Study, ODPM, August 2004* .“as most facilities are under cover and on concrete hard standing with separate foul water drainage, rainfall is unlikely to come into contact with the waste materials and, as such, water pollution is unlikely.”

Potential effects on land through disturbance & increased traffic

All waste sites are likely to involve some road transportation of waste. Other than air pollution, the direct impacts of lorry traffic can include noise, vibration, nuisance, safety issues and congestion. Keeping waste traffic off local roads, as far as possible and on the Strategic Road Network is important in limiting these impacts.

In terms of impact on International site features (potential receptors) and their conservation objectives the main hazards can be summarised as being from airborne or waterborne pollution (including dust), litter, presence of people, traffic and machinery, land take and increased presence of gulls/corvids. These hazards can lead to changes that can result in adverse impact on habitats and species through toxic contamination, nutrient enrichment, acidification, siltation, smothering, disturbance and predation. Factors affecting the likelihood of these impacts from waste facilities on Internationally protected sites include technology type, size of facility and its location.

9. Screening Task A

The following are summary tables of more detailed baseline information contained in Evidence Gathering / Baseline Report (Update 2) available at the following web address:

<http://www.goucestershire.gov.uk/hra>

European sites in or with 15 km of Gloucestershire

Rodborough Common SAC – (Stroud)



Qualifying features

Semi-natural dry grasslands and scrubland facies on calcareous substrates *Festuco-Brometalia*.

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific conservation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

The grassland is dependent upon the maintenance of grazing, co-ordinated through a Commoners Committee. The numbers of cattle grazing has declined with the general decline in the livestock industry, and most of the stock tends to remain on the plateau. The site owners (National Trust and commoners) have developed a project to restore management to the species-rich slopes of the site. This, and scrub management is now being addressed through the newly signed Higher Level Scheme. A number of authorities are working together to provide traffic-calming measures on busy through roads to reduce the number of livestock injuries and promote further uptake of common rights. Recreation has an impact on areas accessible by cars, and is causing localised erosion. Source: Natura 2000 Standard Data Form – Joint Nature Conservation Committee (JNCC) & consultation response from Natural England – Feb 2007 & June 2009.

Dixton Wood SAC – (Tewkesbury)



Qualifying features

Violet click beetle *Limoniscus violaceus*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific conservation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

The Violet click beetle *Limoniscus violaceus* was discovered at Dixton Wood in 1998 and it has been found at the site on a single occasion subsequently. It is a small site with large number of ancient ash *Fraxinus excelsior* pollards, and supports a rich fauna of scarce invertebrate species associated with decaying timber on ancient trees. Rare deadwood species such as the violet click beetle are mobile species which may depend on features outside of the wood for their life-cycle. These may include veteran trees beyond the boundary of the wood and hawthorn blossom for feeding. Impact on these features on the scarp slopes between Teddington and Cleeve Common may also affect the integrity of the site. Source: JNCC & consultation response from Natural England – Feb 2007.

Wye Valley & Forest of Dean Bat Sites SAC – (Forest of Dean / Fynwy Monmouthshire)



Qualifying features

Lesser horseshoe bat *Rhinolophus hipposideros*

Greater horseshoe bat *Rhinolophus ferrumequinum*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific conservation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

The site is composed of parts of a number of buildings in everyday use (mainly roof-spaces) used by the bats for breeding and a series of mines used by bats for hibernation. Within the roost the bats are vulnerable to disturbance at critical times, structural alteration and changes in the characteristic ventilation patterns. The designated sites only cover the major maternity and over-wintering roosts. The bats also depend on features outside the designated sites including intermediate roosts, foraging grounds and hedgerows/tree belts that the bats use as commuting routes. Impact on these features can also affect the integrity of the site. Any proposed changes which are likely to have an impact on the bat populations within the breeding roosts will be discussed with the relevant owners and occupiers. Where appropriate to any populations potentially damaging works will be addressed through appropriate planning regulation, management agreements and monitoring of individual roosts. Regular liaison takes place with site-owners. The human use of the mine systems (continued mineral working and recreational caving/research) is regulated by Forest Enterprise in consultation with Natural England where appropriate. Site Management Statements have been agreed with the owners of working mines to secure conservation of the populations alongside continued working. In addition, the preparation of Cave Conservation Plans will be promoted to maintain and enhance the underground environment for bats. Source: Natura 2000 Standard Data Form – JNCC & consultation response from Natural England – Feb 2007.

River Wye SAC – (Forest of Dean / Fynwy - Monmouthshire / Herefordshire / Powys)



Qualifying features

Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

Transition mires and quaking bogs

White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes*

Sea lamprey *Petromyzon marinus*

Brook lamprey *Lampetra planeri*

River lamprey *Lampetra fluviatilis*

Twaite shad *Alosa fallax*

Atlantic salmon *Salmo salar*

Bullhead *Cottus gobio*

Otter *Lutra lutra*

Allis shad *Alosa alosa*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific consultation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

Water quality impacts arising from changing agricultural land-use within the catchment are having direct and indirect effects on the SAC interests through effects of diffuse pollution such as nutrient run-off and increased siltation. Natural England and the Countryside Council for Wales are seeking to address such issues through improved targeting of existing and new agri-environment schemes and through improvements in compliance with agricultural Codes of Practice. Water quality is also affected by synthetic pyrethroid sheep-dips and by point-source discharges within the catchment. The impact of sewage treatment works on the SAC is being addressed through the Asset Management Plan process and review under the Habitats Regulations. Loss of riparian habitat is occurring as a result of changes in agricultural land-use practices and other factors, including riverside development and the loss of alder tree-cover through disease. These impacts and concerns over water quality will be identified and actions recommended within the joint Natural England/Environment Agency/Countryside Council for Wales conservation strategy for the river. Fishing activities are implicated in the decline of the salmon but it is apparently Irish trawlers rather than local fishermen which have had the greatest impact. The trawler problems have now been resolved. There is increasing demand for abstraction from the river for agriculture and potable water. This is being addressed through the Environment Agency's Catchment Abstraction

Management Strategy as well as the Review of Consents process. Demand for increased recreational activities is a source of potential concern for the future. Regularisation of the functions of the competent authorities, currently being sought, should reduce the risk of damage to the SAC as a result of developments for such activities. Source: Natura 2000 Standard Data Form – JNCC & consultation response from Natural England – Feb 2007.

Wye Valley Woodlands SAC – (Forest of Dean / Fynwy - Monmouthshire / Herefordshire)



Qualifying features

Beech forests *Asperulo-Fagetum*

Tilio-Acerion forests of slopes, screes and ravines

Taxus baccata woods of the British Isles

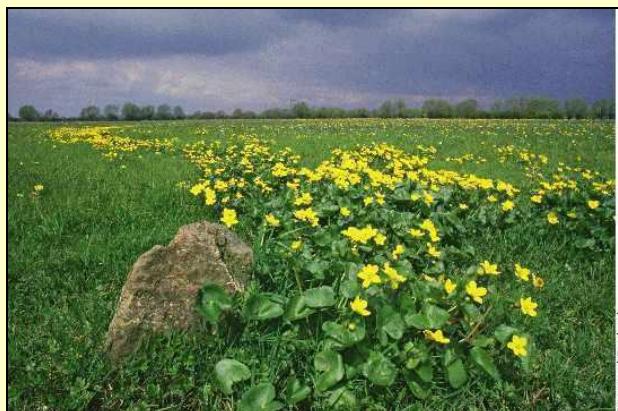
Lesser horseshoe bat *Rhinolophus hipposideros*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific consultation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

A significant proportion of the SAC is already managed sympathetically by Forest Enterprise (now the Forestry Commission), Natural England (as one of the owners*) the Woodland Trust and county Wildlife Trusts. Principal pressures are from lack of management (particularly traditional management, e.g. coppice), increasing deer numbers and inappropriate management proposals which would alter the recognised woodland stand types. Felling license approval and Forestry Commission consultation with Natural England/Countryside Council for Wales are adequate in addressing the latter issue. Positive management is being promoted through management plans (CCW), Site Management Statements (EN) and management agreements, and the Woodland Grant Scheme (including specialised targeting) is being encouraged where possible and appropriate to return some woods to active management. *'Highbury' and 'The Hudnails' are both National Nature Reserve sites in the Wye Valley Woodlands. Source: Natura 2000 Standard Data Form – JNCC & consultation response from Natural England – Feb 2007 and June 2009.

North Meadow & Clattinger Farm SAC – (Wiltshire)



© Natural England

Qualifying features

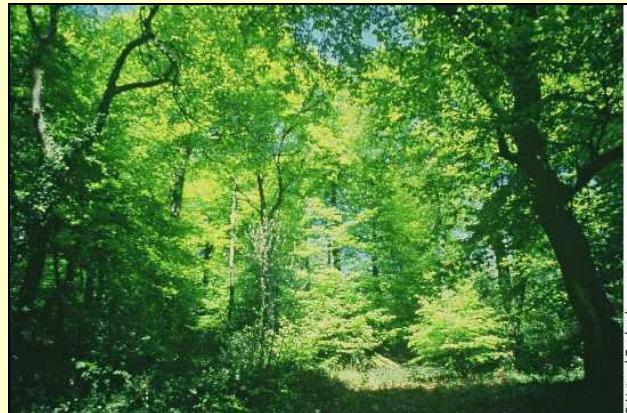
Lowland hay meadows *Alopecurus pratensis*, *Sanguisorba officinalis*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific consultation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

These grasslands are partly a National Nature Reserve (NNR), with the other part owned by a wildlife charity. The habitat is dependent on traditional agricultural practices of hay-cutting with aftermath cattle grazing or seasonal cattle grazing. These management requirements are addressed in the NNR management plan and in a site management statement concerning the private land which stipulates an appropriate regime. The wildlife charity is developing a management plan with Natural England to secure the long-term maintenance of the interest feature. However the traditional hay meadow management is uneconomic in the present agricultural climate. Part of the site is currently in the Countryside Stewardship Scheme; North Meadow is owned by Natural England and is a National Nature Reserve. Adjacent extraction and renovation of gravel workings are a potential threat to water levels and are subject to monitoring and mitigation measures. Source: Natura 2000 Standard Data Form – JNCC & consultation response from Natural England – Feb 2007.

Cotswold Beechwoods SAC – (Stroud, Cotswold, Tewkesbury)



Qualifying features

Beech forests *Asperulo-Fagetum*

Semi-natural dry grasslands and scrubland facies on calcareous substrates *Festuco-Brometalia*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific consultation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

The woodland is being maintained by a variety of silvicultural practices including selective forestry, group fellings and small areas of coppicing. Age-class and structural diversity is being enhanced through sympathetic Woodland Grant Schemes. Early removal of planted conifers and other non-native species is being encouraged in areas where planting occurred in the 1970s. Source: Natura 2000 Standard Data Form – JNCC and consultation response from Natural England – June 2009.

Bredon Hill SAC – (Worcestershire)



Qualifying features

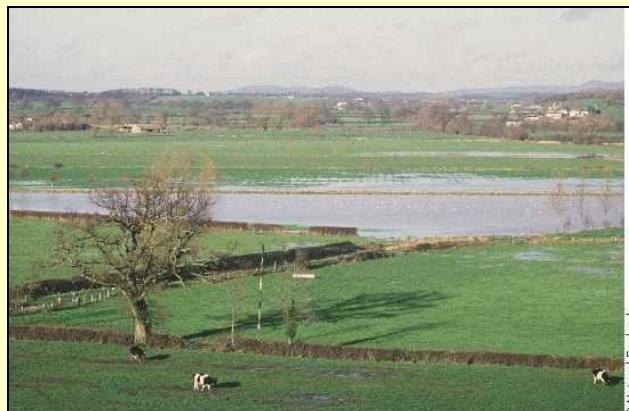
Violet click beetle *Limoniscus violaceus*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific conservation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

Bredon Hill is an area of pasture woodland and ancient parkland providing habitat for *Limoniscus violaceus*. The main threats are the lack of a replacement generation of trees for the current ancient trees over much of the hill, as many of the younger trees have been removed to increase stock grazing areas; the overall number of ancient trees suitable for *Limoniscus violaceus* is relatively small. Management agreements are being used to preserve existing tree stocks and to provide replacement planting. Source: Natura 2000 Standard Data Form – JNCC.

Walmore Common SPA, Ramsar – (Forest of Dean)



Qualifying features

This site qualifies under EU Habitats Directive 79/409/EES Article 4.1 by regularly supporting (in winter) internationally important numbers of Bewick's swan *Cygnus columbianus bewickii*. During the five winter periods 1986/87 to 1990/91 the average peak count was 207 birds (1% of the NW European population and 3% of British. Source: SPA citation.

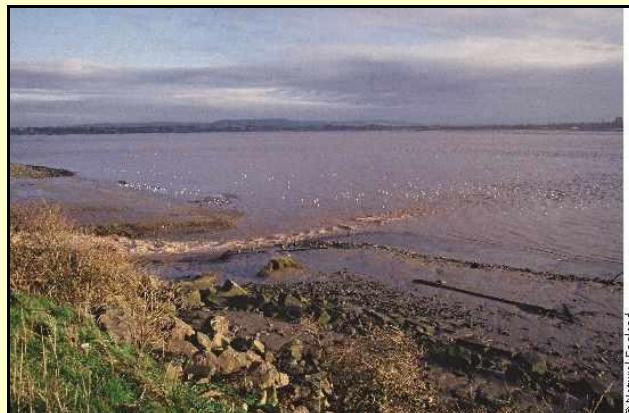
This site qualifies under Ramsar criterion 6 by supporting species/populations occurring at levels of international importance: The qualifying species/populations (peak counts in winter) is Bewick's swan *Cygnus columbianus bewickii*, 43 individuals, representing an average of 0.5% of Great Britain's population (5 year peak mean 1998/9 – 2002/3). Source: JNCC.

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific conservation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

The common occupies a low lying area in the Severn Vale, which is subject to winter flooding. The site is a wetland overlying peat providing a variety of habitats including improved neutral grassland, unimproved marshy grassland and open water ditches. The common is part of a series of sites within the Severn Vale which, in winter, form an important refuge and feeding area for wildfowl. A water level management plan, currently in preparation, will ensure appropriate conditions are retained for the wintering bird interest. The marsh grassland and ditches will be maintained and enhanced by maintaining high water levels from spring to autumn. The nearby Timber Preservation plant has contingency plans in the event of accidental spillage. (Source: Ramsar Sites Information Service at: <http://www.wetlands.org/rsis/>).

Severn Estuary SAC, SPA, Ramsar – (Stroud, Forest of Dean, South Gloucestershire, Fynwy – Monmouthshire, Bristol City, North Somerset, Newport, Cardiff, Vale of Glamorgan)



Qualifying features

Qualifies as a SAC for the following features:

Annex 1 Habitat types:

1. Estuaries
2. Subtidal sandbanks
3. Intertidal mudflats and sandflats
4. Atlantic salt meadows
5. Reefs

Annex II Species:

6. River lamprey
7. Sea lamprey
8. Twaite shad

Qualifies as a SPA as follows:

Internationally important populations of regularly occurring Annex 1 species [Under Article 4.1 of the EU Birds Directive]

SPA interest feature 1: Bewick's swan

Internationally important populations of regularly occurring migratory bird species [Under Article 4.2 of the EU Birds Directive]

SPA interest feature 2: European white-fronted goose

SPA interest feature 3: Dunlin

SPA interest feature 4: Redshank

SPA interest feature 5: Shelduck

SPA interest feature 6: Gadwall

Curlew

Pintail

Ringed plover

SPA interest feature 7: Internationally important assemblage of waterfowl (wildfowl and waders) [Under Article 4.2 of the EU Birds Directive]

Bewick's swan

European white-fronted goose

Dunlin
Redshank
Shelduck
Gadwall
Wigeon
Teal
Pintail
Pochard
Tufted duck
Ringed plover
Grey plover
Curlew
Whimbrel
Spotted redshank
Lapwing
Mallard
Shoveler

Qualifies as a Ramsar site as follows:

Ramsar interest feature 1:

Estuaries

Ramsar interest feature 2:

Assemblage of migratory fish species
Sea Lamprey
River Lamprey
Twaite Shad
Allis Shad
Salmon
Sea Trout
Eel

Internationally important populations of waterfowl (see below)

Ramsar interest feature 3:

Bewick's Swan

Ramsar interest feature 4:

European white-fronted goose

Ramsar interest feature 5:

Dunlin

Ramsar interest feature 6:

Redshank

Ramsar interest feature 7:

Shelduck

Ramsar interest feature 8:

Gadwall

Ramsar interest feature 9:

Internationally important assemblage of waterfowl (see below)

This feature incorporates :

- waterfowl which contribute to the total peak winter count (criterion 3a)
- the above internationally important wintering populations (qualifying under criterion 3c)

- the migratory passage species (qualifying under criterion 2c)
- the nationally important populations (identified under other notable features of the Ramsar Site citation)

The species are as follows :
(w = wintering and p = passage):

Bewick's swan (w)
 European white-fronted goose (w)
 Shelduck (w)
 Dunlin (w, p)
 Redshank (w, p)
 Gadwall (w)
 Ringed plover (w, p)
 Whimbrel (p)
 Teal (w)
 Pintail (w)
 Wigeon (w)
 Pochard (w)
 Tufted duck (w)
 Grey plover (w)
 Curlew (w)
 Spotted redshank (w)

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

The conservation of the site features is dependent on the tidal regime. The range is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats. The estuary is therefore vulnerable to large scale interference, including human actions. These include land-claim, aggregate extraction/dredging, physical developments such as barrage construction flood defences, pollution (industrial, oil spillage), eutrophication and tourism based activities and disturbance. These issues are being predominantly addressed through existing control measures. The Severn Estuary Strategy (a non statutory plan developed since 1995) has been working towards the sustainable management of the site, through the involvement of local authorities, interested parties and local people. In addition the marine part of the European site is managed under a Management Scheme prepared by the Association of Severn Estuary Relevant Authorities (ASERA) to ensure that the occurrence of current activities of all the relevant authorities are compatible with the site's conservation objectives. This integrated approach is being further developed in conjunction with the SAC management scheme for the nature conservation interest of the estuary. A large area of the SPA / Ramsar is now very close to being designated as an SAC.

The protection and management of the SAC in accordance with Article 6 of the Habitats Directive, including in particular the consideration of plans and projects under Article 6(3) and 6(4), should be carried out in view of the conservation objectives as detailed below. Note this is a summary - for the full details see the 2009 CCW / NE report and or the JNCC website. Note: Only the SAC conservation objectives are detailed due to the fact that (a) there are considerable overlaps with the SPA & Ramsar objectives and (b) there is a need to keep this document reasonably brief so as to be as user friendly as possible for interested parties and stakeholders. For the SPA and Ramsar conservation objectives, the 2009 CCW / NE report should be (and will be) referred to in relation to Gloucestershire's future HRA / AA reporting.

■ SAC interest feature 1: Estuaries*

The conservation objective for the "estuaries" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the total extent of the estuary is maintained;
- ii. the characteristic physical form (tidal prism/cross sectional area) and flow (tidal regime) of the estuary is maintained;
- iii. the characteristic range and relative proportions of sediment sizes and sediment budget within the site is maintained;
- iv. the extent, variety and spatial distribution of estuarine habitat communities within the site is maintained;
- v. the extent, variety, spatial distribution and community composition of hard substrate habitats and their notable communities is maintained;
- vi. the abundance of the notable estuarine species assemblages is maintained or increased;
- vii. the physico-chemical characteristics of the water column support the ecological objectives described above;
- viii. Toxic contaminants in water column and sediment are below levels which would pose a risk to the ecological objectives described above.
- ix. Airborne nutrient and contaminant loads are below levels which would pose a risk to the ecological objectives described above.

*Hard substrate habitats including eel grass beds, the estuary-wide assemblage of fish species and the assemblage of waterfowl species (for which the Ramsar Site and SPA are specifically designated) are identified as notable estuarine assemblages which are an intrinsic part of the estuary ecosystem – these are covered by the “Estuaries” feature.

■ SAC interest feature 2: Subtidal sandbanks which are covered by sea water all the time (subtidal sandbanks)

The conservation objective for the “subtidal sandbanks” feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the total extent of the subtidal sandbanks within the site is maintained;
- ii. the extent and distribution of the individual subtidal sandbank communities within the site is maintained;
- iii. the community composition of the subtidal sandbank feature within the site is maintained;
- iv. the variety and distribution of sediment types across the subtidal sandbank feature is maintained;
- v. the gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained.

■ SAC interest feature 3: Mudflats and sandflats not covered by seawater at low tide (mudflats and sandflats)

The conservation objective for “mudflats and sandflats” feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. The total extent of the mudflats and sandflats feature is maintained;
- ii. the variety and extent of individual mudflats and sandflats communities within the site is maintained;
- iii. the distribution of individual mudflats and sandflats communities within the site is maintained;
- iv. the community composition of the mudflats and sandflats feature within the site is maintained;
- v. the topography of the intertidal flats and the morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained.

■ SAC interest feature 4: Atlantic salt meadow

The conservation objective for the “Atlantic salt meadow” feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the total extent of Atlantic salt meadow and associated transitional vegetation communities within the site is maintained;
- ii. the extent and distribution of the individual Atlantic salt meadow and associated transitional vegetation communities within the site is maintained;
- iii. the zonation of Atlantic salt meadow vegetation communities and their associated transitions to other estuary habitats is maintained;
- iv. the relative abundance of the typical species⁵ of the Atlantic salt meadow and associated transitional vegetation communities is maintained;
- v. the abundance of the notable species of the Atlantic salt meadow and associated transitional vegetation communities is maintained.
- vi. the structural variation of the salt marsh sward (resulting from grazing) is maintained within limits sufficient to satisfy the requirements of conditions iv and v above and the requirements of the Ramsar and SPA features;

- vii. the characteristic stepped morphology of the salt marshes and associated creeks, pills, drainage ditches and pans, and the estuarine processes that enable their development, is maintained;
- viii. any areas of *Spartina anglica* salt marsh (SM6) are capable of developing naturally into other saltmarsh communities.

■ SAC interest feature 5: Reefs

The conservation objective for the “reefs” feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the total extent and distribution of *Sabellaria* reef is maintained;
- ii. the community composition of the *Sabellaria* reef is maintained;
- iii. the full range of different age structures of *Sabellaria* reef are present;
- iv. the physical and ecological processes necessary to support *Sabellaria* reef are maintained.

■ SAC interest feature 6: River lamprey *Lampetra fluviatilis*

The conservation objective for the river lamprey *Lampetra fluviatilis* feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the migratory passage of both adult and juvenile river lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality;
- ii. the size of the river lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term;
- iii. the abundance of prey species forming the river lamprey’s food resource within the estuary, is maintained;
- iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.

■ SAC interest feature 7: The conservation objective for sea lamprey *Petromyzon marinus*

The conservation objective for the sea lamprey *Petromyzon marinus* feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the migratory passage of both adult and juvenile sea lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality;
- ii. the size of the sea lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained as is at a level that is sustainable in the long term;
- iii. the abundance of prey species forming the sea lamprey’s food resource within the estuary, is maintained.
- vi. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.

SAC interest feature 8: The conservation objective for twaite shad *Alosa fallax*

The conservation objective for the twaite Shad *Alosa fallax* feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below:

The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

- i. the migratory passage of both adult and juvenile twaite shad through the Severn Estuary between the Bristol Channel and their spawning rivers is not obstructed or impeded by physical barriers, changes in flows or poor water quality;
- ii. the size of the twaite shad population within the Severn Estuary and the rivers draining into it is at least maintained and is at a level that is sustainable in the long term.
- iii. the abundance of prey species forming the twaite shad’s food resource within the estuary, in particular at the salt wedge, is maintained.

iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.

Source: The Severn Estuary / Môr Hafren European Marine Site – NE/CCW – 2009.

Avon Gorge Woodlands SAC – (City of Bristol)



Qualifying features

Tilio-Acerion forests of slopes, screes and ravines

Semi-natural dry grasslands and scrubland facies: on calcareous substrates *Festuco-Brometalia*

Conservation objectives / vulnerabilities & sensitivities / key environmental conditions to support site integrity

Specific conservation objectives are not currently available through the JNCC website / other sources, but these should clearly relate to the protection of qualifying features and supporting site integrity.

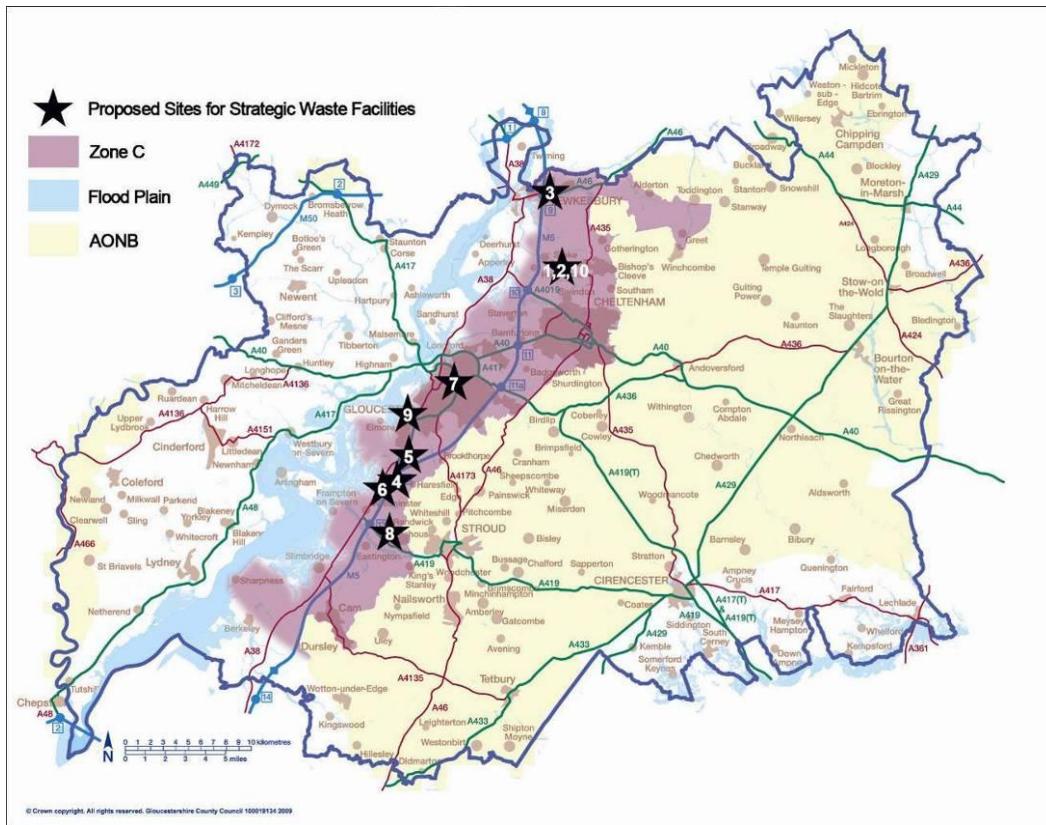
There are no significant threats to the Annex I habitat on this site. Part is managed as a National Nature Reserve and the management of the remainder is being addressed through a Site Management Statement. The presence of non-native trees throughout the site needs to be assessed. In addition, scrub invasion and non-native species (Rosy and Keeled Garlic) on calcareous grasslands is a problem. Both of these have begun to be tackled through the Avon Gorge and Downs Wildlife Project.

10. Screening Task B

This section of the report considers the potentially significant effects of the plan on European sites.

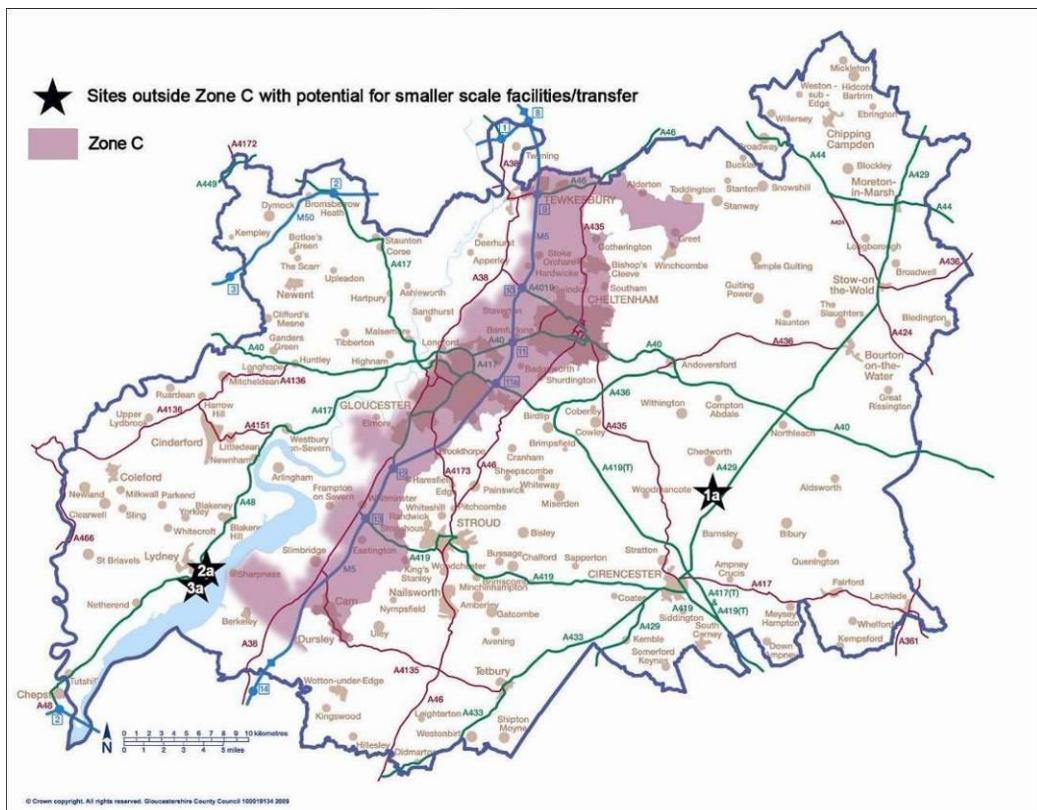
The WCS Site Options consultation document outlines the following options or scenarios with a number of sites that could potentially deliver them:

A: An option focusing the search for strategic sites on a central area of the County defined as Zone C. This zone is close to the main waste arisings and bounded by the Cotswold AONB to the east and areas of floodplain to the west. See the map below for the broad location of the Zone C sites 1 to 10. See also Appendix A for more detailed site maps of the proposed waste sites.



This option also looks at the potential of incorporating residual waste treatment into urban extensions / growth areas if and when these come forward. The 10 sites are also considered as suitable for waste transfer facilities should these be needed.

B: An option focused on sites outside Zone C (for waste treatment or transfer – probably relatively small in scale). See the map below for the broad location of the Outside Zone C sites 1a to 3a. See also Appendix A for more detailed site maps of the proposed waste sites.



The following Table 4. is the key for Table 5 and the more detailed schedules for each waste site that follow. It should be noted that this scoring system accords with that used in previous HRA reports for the WCS Issues & Options and Preferred Options documents. The scoring has been undertaken by Gloucestershire's Principal Ecologist.

Table 4. HRA Summary Assessment Key

Category 5	NLSE	This element or part of the plan / options would have no negative effects on European sites
Category 4	NLSE	This element or part of the plan / option could have an effect, but the likelihood is there would be no significant negative effects on a European site either alone or in combination with other elements of the same plan, or other plans or projects
Category 3	U	Uncertain – the precautionary principle applies
Category 2	LSE	This element or part of the plan / option could or is likely to have a significant effect alone and will require the plan to be subject to an Appropriate Assessment before the plan may be adopted
Category 1	LSE	This element or part of the plan / option is likely to have a significant effect in combination with other elements of the same plan, or other plans and projects and will require the plan to be subject to an appropriate assessment before the plan may be adopted

Table 5 below is a summary assessment of the WCS options. The following schedules (including 10 km plus 1 km graduated ARCGIS buffering) provide a detailed assessment of each proposed waste used to support the conclusions in the summary.

Table 5. Summary of Assessment Scores		
WCS Strategy Site Options Document	Category / Score	Comment
■ Sites in Zone C	LSE (including thermal)	This is the broad option within which the sites below 1 to 10 fit. The 10 sites make the option deliverable. So if all of the proposed sites are utilised the precautionary principle applies to arrive at the assessment, i.e. a worst case scenario. Given the individual scoring of the proposed sites below Appropriate Assessment is required. This broad option has been assessed as could or be likely to have a significant effect on international sites but his is uncertain if thermal treatment is excluded at all sites. It should be noted that in the assessment of all the sites their use for waste treatment <i>and</i> for waste transfer is considered.
	U (excluding thermal)	
Zone C Site 1. Areas A, B & C at Wingmoor Farm East, Tewkesbury	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 561 (of which this site is a part) used in Technical Site Schedules and SA Reports was 0. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites and Other Internationally Designated Sites (Wetlands)'. This assessment only considered International / European sites within 1m unless there was a potential hydrological connection.</p>
	NLSE (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is likely but only if a thermal treatment facility is an option for this site. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>

Zone C Site 2. Areas A, B & C at Wingmoor Farm West, Tewkesbury	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 272 (of which Areas B & C are a part) used in Technical Site Schedules and SA Reports was 0. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites and Other Internationally Designated Sites (Wetlands)'. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection.</p> <p>The GCC¹ Ecology / Biodiversity assessment for Site 584 (Area A) used in Technical Site Schedules and SA Reports was 0. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites and Other Internationally & Nationally Designated Sites (Wetlands)'. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection.</p>
	NLSE (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is likely but only if a thermal treatment facility is an option for this site. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Zone C Site 3. Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 252 used in Technical Site Schedules and SA Reports was 0*. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites, but for Other Internationally & Nationally Designated Sites (Wetlands) Severn Ham SSSI was recorded at just over a distance of 1 km. This assessment only considered International / European sites within 1 km unless there was</p>

	NLSE (excluding thermal)	<p>a potential hydrological connection.*Indicates potential hydrological connection.</p> <p>Further screening confirms that Appropriate Assessment is likely but only if a thermal treatment facility is an option for this site. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Zone C Site 4. Javelin Park, Stroud	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for Site 145 used in Technical Site Schedules and SA Reports was 0*. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive. Designated aquifer fed/surface water/flood water dependent site(s) over 1 km distant which may be affected (where chosen technology and development design poses a risk to the water environment)</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites, but for Other Internationally & Nationally Designated Sites (Wetlands) Severn Estuary SAC/SPA/Ramsar/SSSI was recorded at a water pathway distance of 11,900m. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection.</p>
	U (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is likely if a thermal treatment facility is an option for this site and might also be a possibility for a non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Zone C Site 5. Land adjacent to Quadrant Business Centre, Quedgeley	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 555 used in Technical Site Schedules and SA Reports was 0*. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive. Designated aquifer fed/surface water/flood water dependent site(s) over 1 km distant which may be affected (where chosen technology and development design poses a risk to the water environment)</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites, but for Other Internationally & Nationally Designated Sites (Wetlands) Severn Estuary SAC/SPA/Ramsar/SSSI was recorded at a water pathway distance of 12,900m. This assessment only considered</p>

	U (excluding thermal)	<p>International / European sites within 1 km unless there was a potential hydrological connection. *Indicates potential hydrological connection.</p> <p>Further screening confirms that Appropriate Assessment is likely if a thermal treatment facility is an option for this site and might also be a possibility for a non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Zone C Site 6. Land at Moreton Valence, Stroud	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for Site 546 used in Technical Site Schedules and SA Reports was 0*. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive. Designated aquifer fed/surface water/flood water dependent site(s) over 1 km distant which may be affected (where chosen technology and development design poses a risk to the water environment)</i>. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites, but for Other Internationally & Nationally Designated Sites (Wetlands) Severn Estuary SAC/SPA/Ramsar/SSSI was recorded at a water pathway distance of 10,950m. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection. *Indicates potential hydrological connection.</p>
	U (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is likely if a thermal treatment facility is an option for this site and might also be a possibility for a non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Zone C Site 7. Land north of Railway Triangle, Gloucester	U (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 542 (of which this site is a part) used in Technical Site Schedules and SA Reports was 0. The score definition was: The overall impact on biodiversity could be potentially negative, uncertain or positive. No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites and Other Internationally & Nationally Designated Sites (Wetlands)'. This assessment only considered International / European sites within 1 km</p>

	NLSE (excluding thermal)	unless there was a potential hydrological connection. Further screening confirms that Appropriate Assessment might be a possibility if a thermal treatment facility is an option for this site but not likely for a non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage. ¹ Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).
Zone C Site 8. Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud	LSE (including thermal)	The GCC ¹ Ecology / Biodiversity assessment for the wider Site 544 used in Technical Site Schedules and SA Reports was 0* . The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive. Designated aquifer fed/surface water/flood water dependent site(s) over 1 km distant which may be affected (where chosen technology and development design poses a risk to the water environment)</i> . No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites, but for Other Internationally & Nationally Designated Sites (Wetlands) Severn Estuary SAC/SPA/Ramsar/SSSI was recorded at a water pathway distance of 9,990m. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection. *Indicates potential hydrological connection.
	U (excluding thermal)	Further screening confirms that Appropriate Assessment is likely if a thermal treatment facility is an option for this site and might also be a possibility for a non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage. ¹ Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).
Zone C Site 9. Netheridge Sewage Treatment Works, Gloucester	U (including thermal)	The GCC ¹ Ecology / Biodiversity assessment for Site 461 used in Technical Site Schedules and SA Reports was 0* . The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive. Designated aquifer fed/surface water/flood water dependent site(s) over 1 km distant which may be affected (where chosen technology and development design poses a risk to the water environment)</i> . No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites, but for Other Internationally & Nationally Designated Sites (Wetlands) Walmore Common SPA/Ramsar/SSSI was recorded at a distance of 5,770m

	U (excluding thermal)	<p>and Severn Estuary SAC/SPA/Ramsar/SSSI was recorded at a distance of 9,990m. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection. *Indicates potential hydrological connection.</p> <p>Further screening confirms that Appropriate Assessment might be a possibility for either a thermal or non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Zone C Site 10. The Park, Wingmoor Farm West, Tewkesbury	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 272 (of which Site 10 is a part) used in Technical Site Schedules and SA Reports was 0. The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive.</i> No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites and Other Internationally Designated Sites (Wetlands)'. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection.</p> <p>Further screening confirms that Appropriate Assessment is likely but only if a thermal treatment facility is an option for this site. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
	NLSE (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is likely but only if a thermal treatment facility is an option for this site. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
Urban Growth Areas	U	<p>Although proposed urban growth areas are close to Gloucester and Cheltenham, given the current status of the RSS, they are not defined in detail in the WCS Site Options Consultation document. In the light of this, an uncertain score has been given.</p>
■ Sites outside Zone C	LSE (including thermal)	<p>This is the broad option within which the sites below 1a to 3a fit. If some or all of the proposed sites are utilised the precautionary principle applies to arrive at the assessment, i.e. a worst case scenario. Given the individual scoring of the proposed sites Appropriate Assessment is required. This broad option has been assessed as likely to have a significant effect particularly if a thermal treatment is included. This assessment includes the use of these sites for smaller scale waste treatment and / or for use as a transfer station.</p>
	LSE (excluding thermal)	<p>This is the broad option within which the sites below 1a to 3a fit. If some or all of the proposed sites are utilised the precautionary principle applies to arrive at the assessment, i.e. a worst case scenario. Given the individual scoring of the proposed sites Appropriate Assessment is required. This broad option has been assessed as likely to have a significant effect particularly if a thermal treatment is included. This assessment includes the use of these sites for smaller scale waste treatment and / or for use as a transfer station.</p>

Site 1a. Foss Cross Industrial Estate	NLSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for Site 026 used in Technical Site Schedules and SA Reports was <input checked="" type="checkbox"/> The score definition was: <i>The overall impact on biodiversity could be potentially negative, uncertain or positive.</i> No sites were recorded under the heading 'Nearby Internationally & Nationally Designated Sites and Other Internationally Designated Sites (Wetlands)'. This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection.</p>
	NLSE (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is not likely to be required for either a thermal or non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p>
Site 2a. Hurst Farm Lydney	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 78 used in Technical Site Schedules and SA Reports was <input checked="" type="checkbox"/> The score definition was: <i>The overall impact on biodiversity could be potentially negative or uncertain including potential impact on an internationally designated site.</i> Severn Estuary SAC/SPA/Ramsar/SSSI was recorded under the heading 'Nearby Internationally & Nationally Designated Sites at a distance of 305m. No other sites were recorded under Other Internationally Designated Sites (Wetlands). This assessment only considered International / European sites within 1 km unless there was a potential hydrological connection.</p>
	LSE (excluding thermal)	<p>Further screening confirms that Appropriate Assessment is likely to be required for a thermal or non-thermal treatment facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p>
Site 3a. Land at Lydney Industrial Estate	LSE (including thermal)	<p>The GCC¹ Ecology / Biodiversity assessment for the wider Site 526 used in Technical Site Schedules and SA Reports was <input checked="" type="checkbox"/> The score definition was: <i>The overall impact on biodiversity could be potentially negative or uncertain including potential impact on an internationally designated site.</i> Severn Estuary SAC/SPA/Ramsar/SSSI was recorded under the heading 'Nearby Internationally & Nationally Designated Sites at a distance of 55m. No other sites were recorded under Other Internationally Designated Sites (Wetlands). This assessment only considered International</p>

	U (excluding thermal)	<p>/ European sites within 1 km unless there was a potential hydrological connection.</p> <p>Further screening confirms that Appropriate Assessment is likely to be required if a thermal treatment facility is an option for this site and might also be a possibility for a non-thermal facility. The views of NE are required as to the need for Appropriate Assessment should this site continue to WCS Publication stage.</p> <p>¹Based on information provided by the County's Principal Ecologist and the Gloucestershire Centre for Environmental Records (GCER).</p>
■ A combination of Zone C and Outside Zone C sites	LSE (including thermal)	All or some of the proposed sites could be utilised with various permutations from within and outside zone C. The precautionary principle applies to arrive at the assessment for this broadest option, i.e. a worst case scenario. Given the individual scoring of all the proposed sites Appropriate Assessment is required. This broadest option has been assessed as likely to have a significant effect particularly if a thermal treatment is included. This assessment includes the use of these sites for smaller scale waste treatment and / or for use as a transfer station.

Potential effects and appropriate buffer zones

The following detailed schedules for the 13 waste sites in the WCS Site Options Consultation document all contain a ArcGIS produced buffer map with 1 km rings extending to 10 km from the boundary of the sites. As briefly explained earlier in Section 2, this buffering approach is based on techniques employed by the EA. They have produced a handbook (not published but available as digital files on request) on the EU Habitats Directive which is used primarily for the review of already permitted development. It indicates that, in looking at potential impacts of waste facilities on European sites, the following are acceptable buffer zones for use in a screening assessment:

A likely significant effect may occur where Natura 2000 and Ramsar sites lie:

- Within 10 km of a proposed thermal treatment facility;
- Within 2 km of a proposed landfill site, or 5 km if they could attract corvids or gulls, or could be hydraulically connected to an emission;
- Within 1 km of all other proposed waste sites, or could also be connected with them hydraulically.

Additional general (not waste specific) EA guidance³ on emissions to air states that:

"Emissions to air may have effects over both long and short ranges. For short-range effects of IPC/PPC permissions the following criteria should be used to identify applications that are relevant and require a Stage 2⁴ assessment.

³ Appendix 7 – Stage 1 & 2 Assessment of New Integrated Pollution Control (IPC), Pollution Prevention and Control (PPC) Permissions under the Habitats Regulations, Version 6, October 2006, Environment Agency.

⁴ A Stage 2 assessment within the Environment Agency guidance refers to *assessing the likely significant effect*. Stage 2 is a second screening exercise and basic risk assessment to identify applications under the

- Any application within the boundary of a European site;
- Any centrally dispatched coal or oil-fired power station within 15 km of a European site;
- Any standard intensive agriculture installation (up to 10 x PPC threshold) within 2 km of a European site;
- Any large intensive agriculture installation (10-20 x PPC threshold) within 5 km of a European site;
- Any very large intensive agriculture installation (>20 x PPC threshold) within 10 km of a European site;
- Any other application within 10 km⁵ of a European site.”

It is also worth emphasising that Natural England (NE) have approved the use of these buffer zones for this initial screening process but consider that, due to the fact that European sites have widely differing sensitivities, this does not represent a comprehensive measure of possible effects. Natural England may require an Appropriate Assessment even when a European site falls outside the 10 km buffer zone. NE advice and the EA's Habitats Directive Manual are clear that a buffering approach is acceptable but assessments must carefully consider pollution pathways and any potential hydrological connections between waste sites and European sites (over and above any basic buffering process).

WCS sites - proposed uses

The WCS Site Options document contains sites which could be suitable for large⁶ residual waste treatment facilities. The treatment of residual Municipal Solid Waste (MSW) is the primary reason for the allocation of sites, but the use of these sites for Commercial and Industrial (C&I) waste is also considered.

At the time of writing the Council is engaged in an ongoing procurement process for a long term residual municipal waste contract and no decisions have been made on technology. However, for the purposes of this HRA screening report, Thermal Treatment, (i.e. waste management processes⁷ involving medium and high temperatures to recover energy from the waste), is assumed as a potential technology option that could come forward.

For the 10 sites in Zone C, 2 scenarios are assumed:

- A generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80m⁸.
- A non-thermal treatment facility (e.g. Mechanical Biological Treatment (MBT) or Anaerobic Digestion (AD) or Autoclaving with a capacity of 150,000 to 270,000 tpa.

Note: 270,000 tpa has been used because the estimated MSW capacity requirements for Gloucestershire by 2020 (i.e. what needs to be planned for) is a range of 150,000 to 270,000 tpa. This is based on best and worst case scenarios, which could be affected by many different and unforeseeable factors, for example: growth rates, public take up of recycling / composting opportunities and District collection of material etc. The South West RSS assumes a maximum secondary treatment facility of 200,000 tonnes per annum, which lies in the middle of this range.

Environment Agency's review of consents that are likely to have a significant effect on the European sites either alone or in combination with other plans and projects and will require a Stage 3 Appropriate Assessment.

⁵ Underlining emphasis added.

⁶ Large – i.e. ‘Strategic’ – over 50,000 tpa throughput. This applies to the 10 Zone C sites in the consultation document. The 3 more remote sites outside of Zone C are only intended for smaller facilities or for transfer.

⁷ This includes Advanced Thermal Treatment (ATT), Pyrolysis and Gasification.

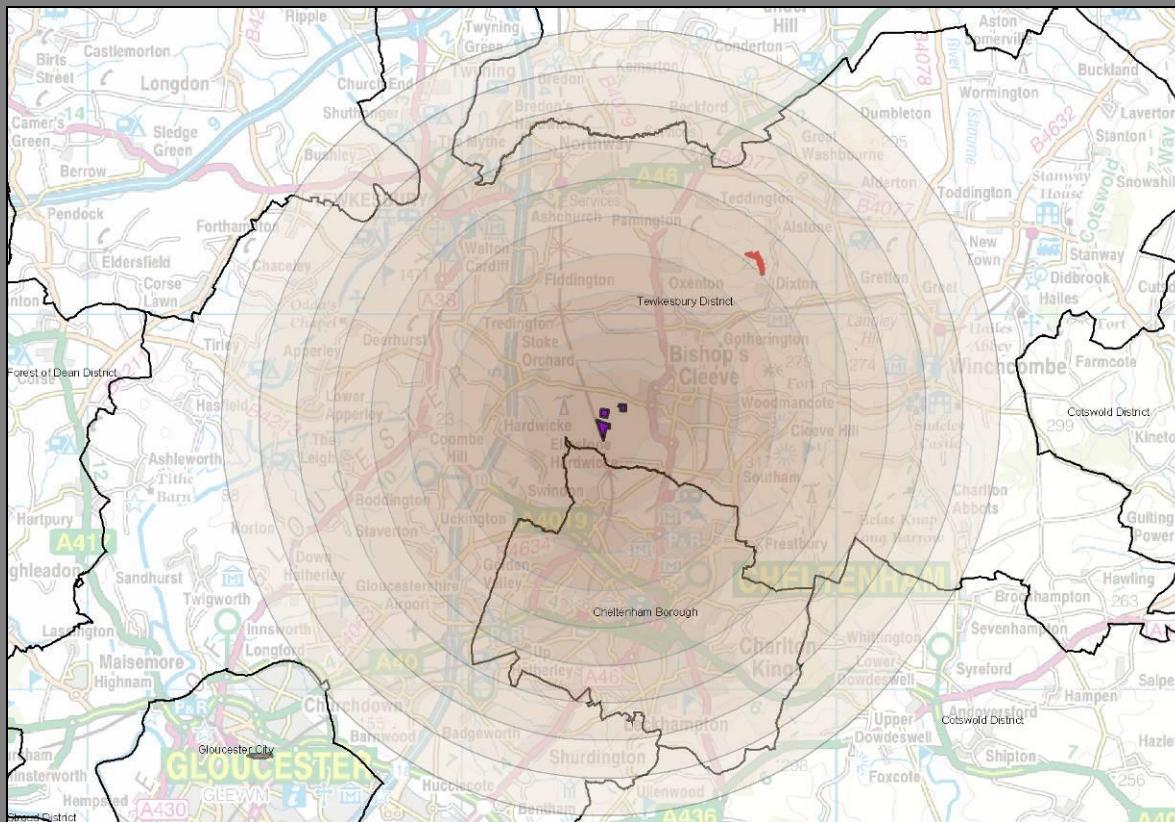
⁸ An 80 m stack is often used as a typical / generic stack height for a large facility.

For the 3 sites outside Zone C, 2 scenarios are assumed:

- A smaller scale generic thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa and a stack height of c.40 - 50m.
- A smaller scale non-thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa.

HRA Screening not Appropriate Assessment

In considering the below schedules it is important to note that this report is a screening HRA and thus does not go into the depth of analysis and modelling of impacts that an Appropriate Assessment would.



Site name: Site 1. Areas A, B & C at Wingmoor Farm East, Tewkesbury.

Area: A = c.2.5 ha. B = c.3.3 ha. C = c.9 ha.

European sites in proximity:

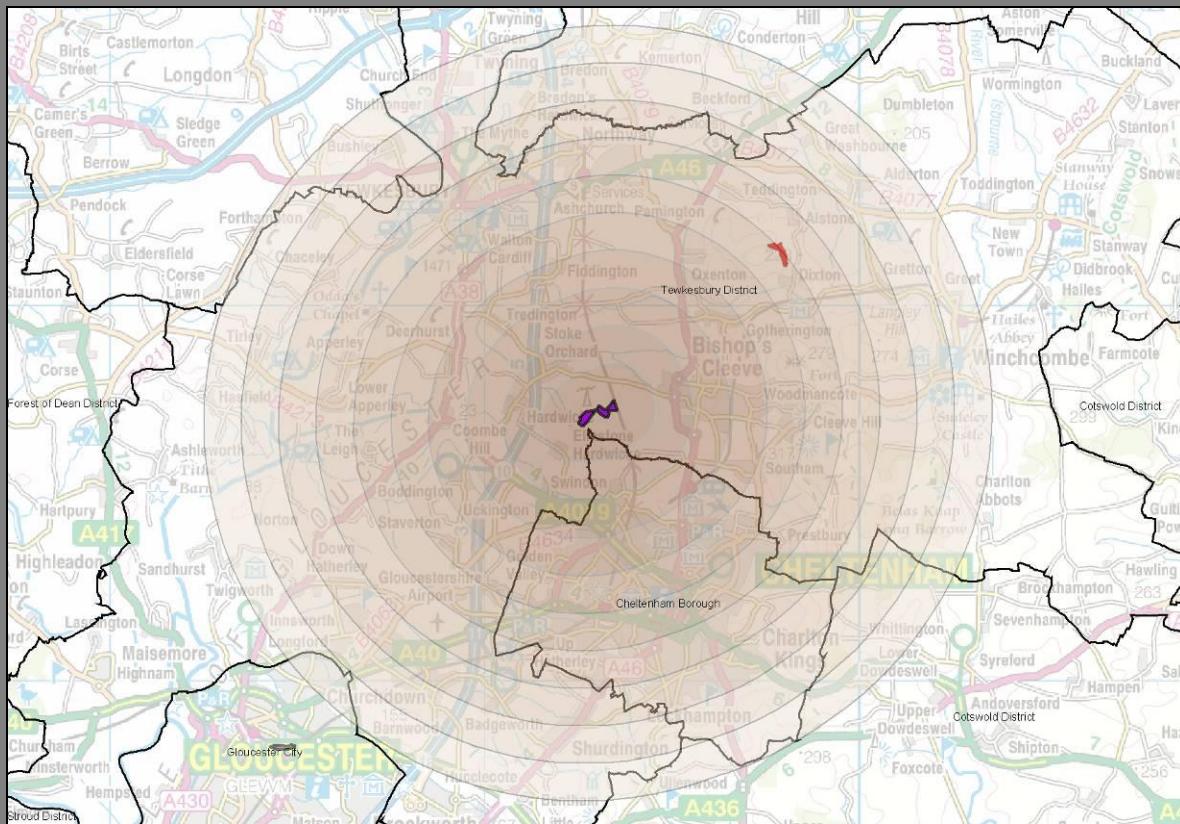
- **Within 1 km:**
- **Within 2 km:**
- **Within 5 km:**
- **Within 10 km:** **Dixton Wood SAC** is 5.2km away (see summary details in screening task A above).

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

<p>■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.</p>	<p>Potential <u>Pollution Pathways</u> from Waste Site to European Site:</p> <p>Through <u>Water</u>: None identified.</p>
---	--

	<p>Through <u>Air</u>: The prevailing winds are SW.</p> <p>The proposed site is SW of Dixton Wood and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Dixton Wood and its receptor (Violet Click Beetle) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through <u>Water</u>: None identified.</p>
	<p>Through <u>Air</u>: None identified.</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>

Score: NLSE



Site name: Site 2. Areas A, B & C at Wingmoor Farm West, Tewkesbury.

Area: A = c. 9 ha. B = 3.2 ha. C = c.5.5 ha.

European sites in proximity:

- **Within 1 km:**
- **Within 2 km:**
- **Within 5 km:**
- **Within 10 km:** **Dixton Wood SAC** is 5.8km away (see summary details in screening task A above)

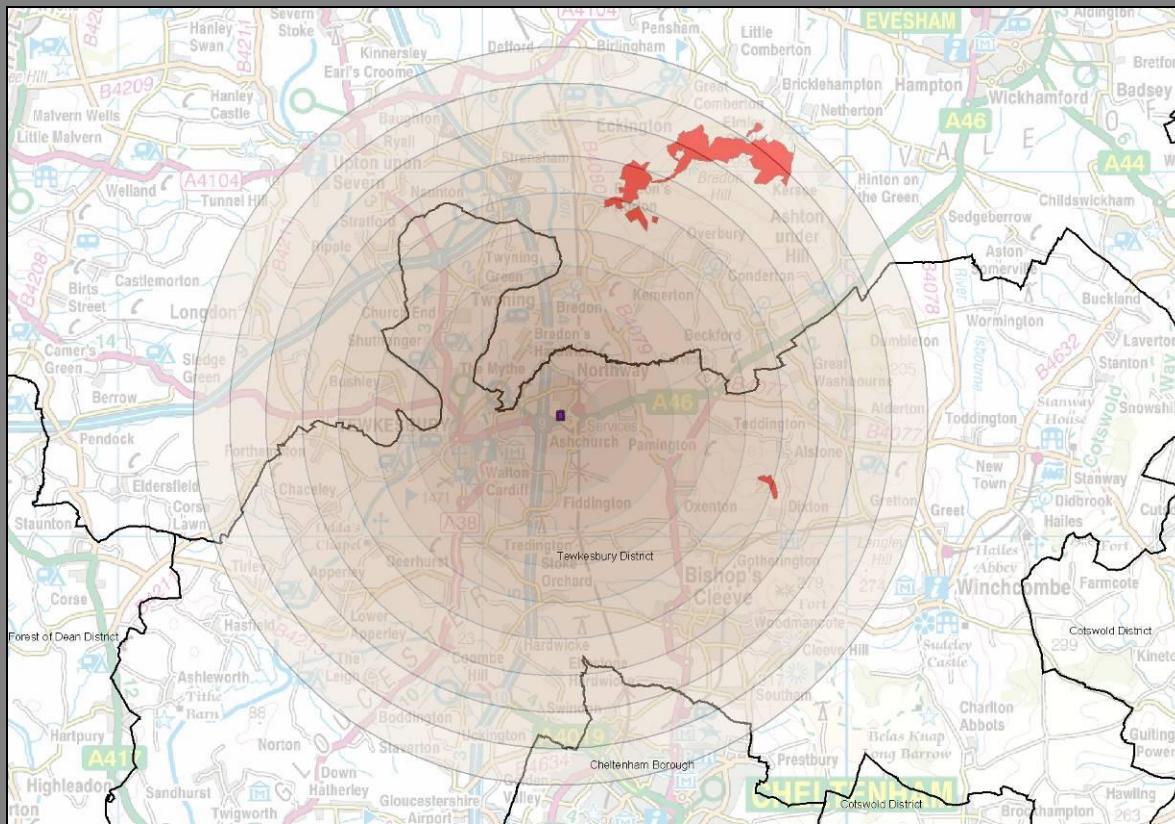
Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.

Potential Pollution Pathways from Waste Site to European Site:

Through Water: None identified

	<p>Through <u>Air</u>: The prevailing winds are SW. The proposed site is SW of Dixton Wood and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Dixton Wood and its receptor (Violet Click Beetle) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through <u>Water</u>: None identified</p> <p>Through <u>Air</u>: None identified</p> <p>Through <u>Land</u> (including via Physical Disturbance): None identified</p> <p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p> <p>Score: NLSE</p>



Site name: Site 3. Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury.

Area: 3.5 ha.

European sites in proximity:

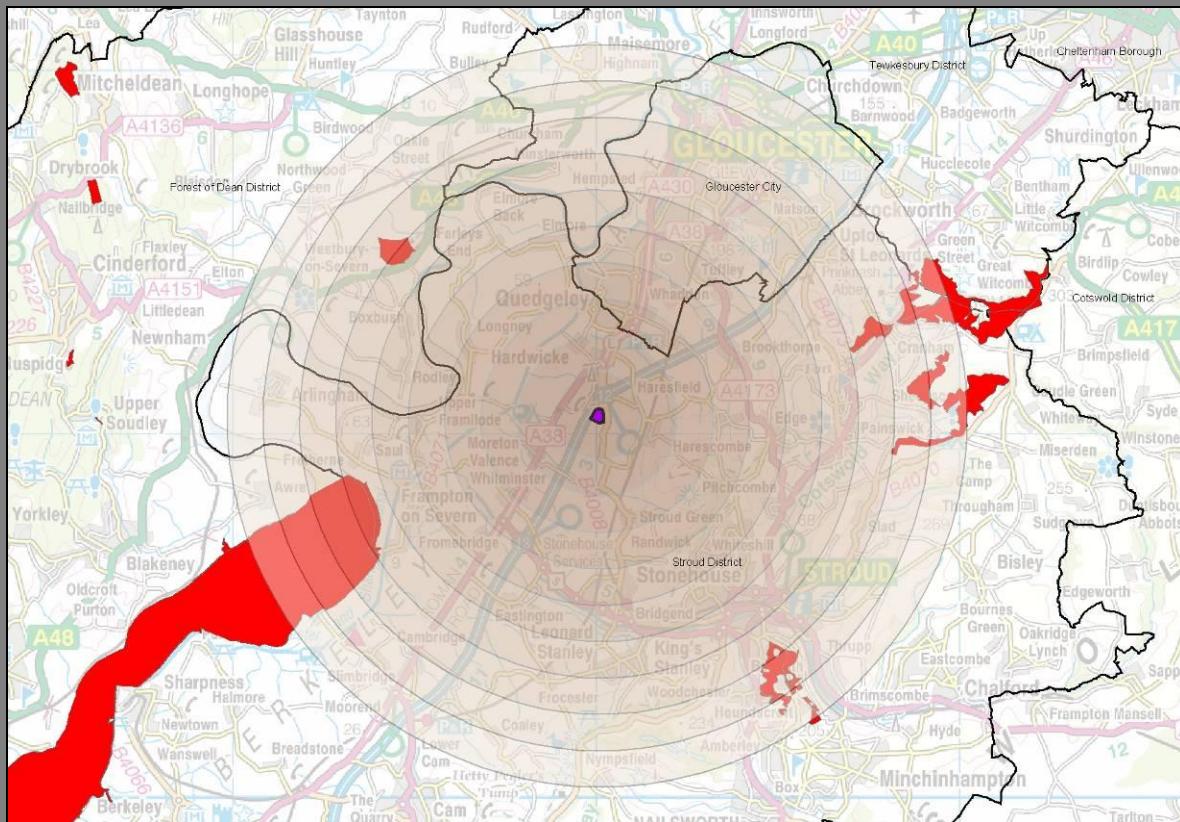
- **Within 1 km:**
- **Within 2 km:**
- **Within 5 km:**
- **Within 10 km:** **Bredon Hill SAC** is 5.5km away & **Dixton Wood SAC** is 5.6km away (see site summary details in screening task A above)

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

<p>■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.</p>	<p>Potential Pollution Pathways from Waste Site to European Site:</p>
	<p>Through Water: None identified</p>

	<p>Through Air: The prevailing winds are SW.</p> <p>The proposed site is approximately NW of Dixton Wood and at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Dixton Wood and its receptor (Violet Click Beetle) if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately SW of Bredon Hill and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Bredon Hill and its receptor (Violet Click Beetle) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through Land (including via Physical Disturbance): None identified.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through Water: None identified.</p>
	<p>Through Air: None identified.</p>
	<p>Through Land (including via Physical Disturbance): None identified.</p>
	<p>Further comments including on potential effects on</p>

	<p>the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: NLSE</p>



Site name: Site 4. Javelin Park, Stroud

Area: c.11 ha.

European sites in proximity:

- Within 1 km:
- Within 2 km:
- Within 5 km:
- Within 10 km: **Severn Estuary SAC/SPA/Ramsar** is 6.3km away, **Walmore Common SPA/Ramsar** is 6.7km away, **Cotswold Beechwoods SAC** is 7.1km away & **Rodborough Common SAC** is 7.6km away (see site summary details in screening task A above).

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

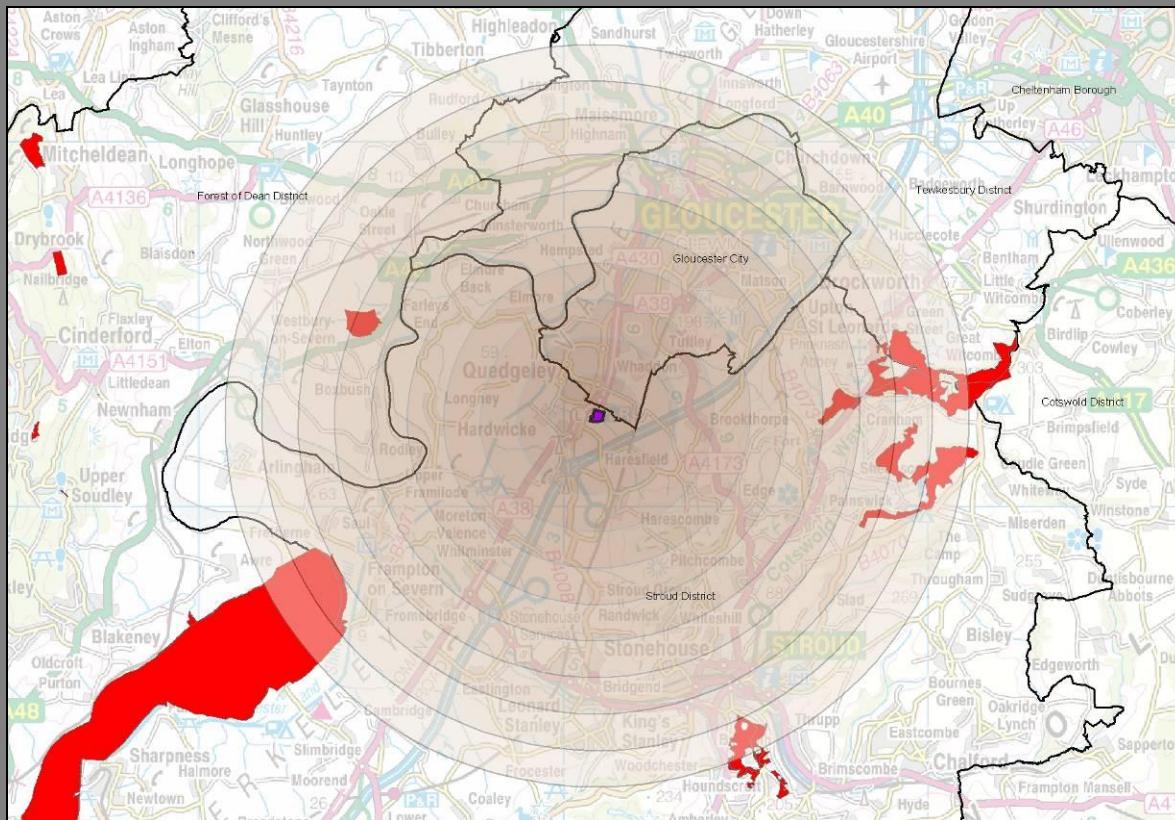
■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.

Potential Pollution Pathways from Waste Site to European Site:

Through Water: A potential surface pathway to the Severn Estuary exists via the Beaurepair Brook which lies very close to this proposed site. The brook flows into the Gloucester & Sharpness Canal

	<p>which then meets the estuary at Sharpness. The length of this pathway is up to approximately 20km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing winds are SW.</p> <p>The proposed site is approximately W/SW of Cotswold Beechwoods and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods and its receptor (beech woodland, dry grassland and scrub) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately SE of Walmore Common, NW of Rodborough Common and NE of the Severn Estuary and at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p>
	<p>Through Land (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through Water: A potential surface pathway to the Severn Estuary exists via the Beaurepair Brook which lies very close to this proposed site. The brook flows into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The</p>

	<p>length of this pathway is up to approximately 20km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through <u>Air</u>: None identified</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None identified.</p>
	<p>Score: U</p>



Site name: Site 5. Land adjacent to Quadrant Business Centre, Quedgeley

Area: c.9 ha.

European sites in proximity:

- Within 1 km:
- Within 2 km:
- Within 5 km:
- Within 10 km: **Cotswold Beechwoods SAC** is 6.0km away, **Walmore Common SPA/Ramsar** is 6.3km away, **Severn Estuary SAC/SPA/Ramsar** is 8.0km away & **Rodborough Common SAC** is 8.9km away (see site summary details in screening task A above)

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

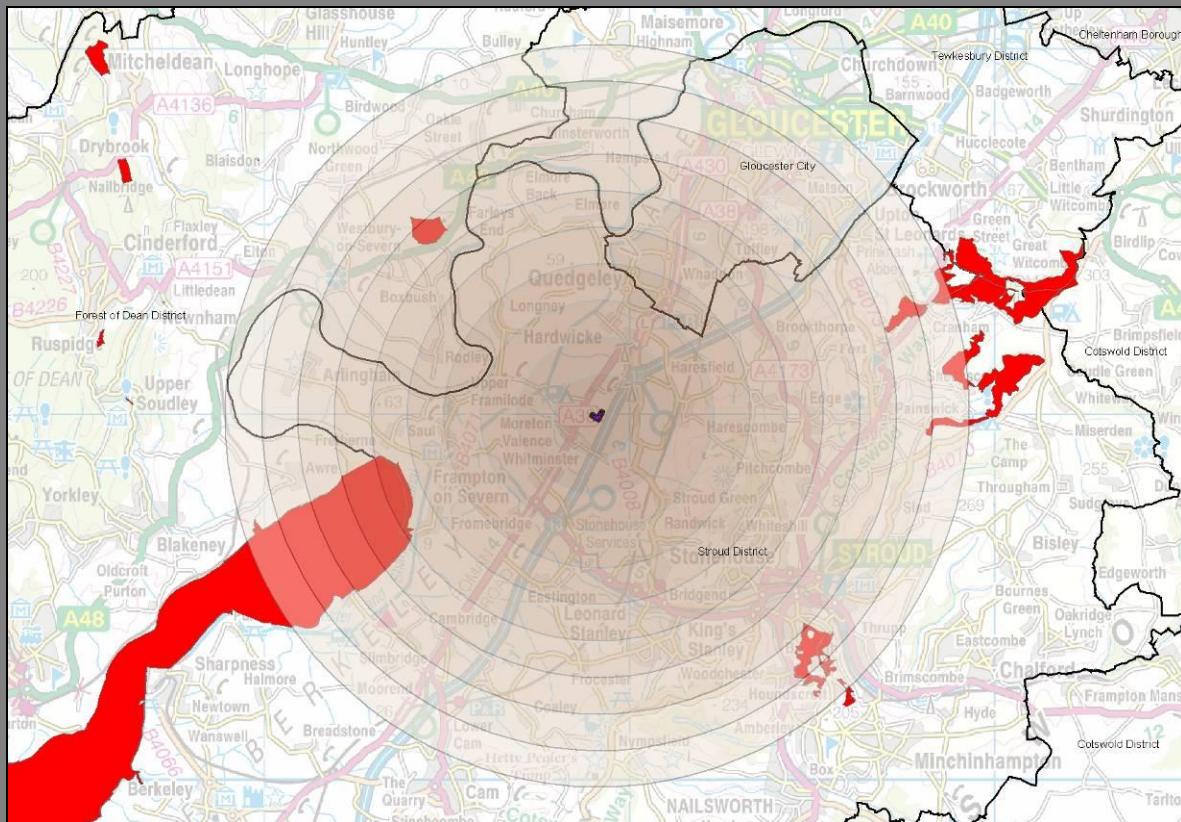
■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.

Potential Pollution Pathways from Waste Site to European Site:

Through Water: A potential surface pathway to the Severn Estuary exists via the Shorn Brook which lies very close to this proposed site. The brook flows into the Gloucester & Sharpness Canal which

	<p>then meets the estuary at Sharpness. The length of this pathway is up to approximately 20km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing winds are SW.</p> <p>The proposed site is approximately SE of Walmore Common, NW of Rodborough Common, and NE of the Severn Estuary and at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately W of Cotswold Beechwoods and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods and its receptor (beech woodland, dry grassland and scrub) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through Land (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through Water: A potential surface pathway to the Severn Estuary exists via the Shorn Brook which lies very close to this proposed site. The brook flows into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The length of this pathway is up to approximately 20km. Although</p>

<p>at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
<p>Through <u>Air</u>: None identified</p>
<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection). None.</p>
<p>Score: U</p>



Site name: Site 6. Land at Moreton Valence, Stroud

Area: c. 5.5 ha.

European sites in proximity:

- Within 1 km:
- Within 2 km:
- Within 5 km:
- Within 10 km: **Severn Estuary SAC/SPA/Ramsar** is 5.3km away, **Walmore Common SPA/Ramsar** is 6.3km away, **Rodborough Common SAC** is 7.9km away & **Cotswold Beechwoods SAC** is 8.0km away (see site summary details in screening task A above).

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

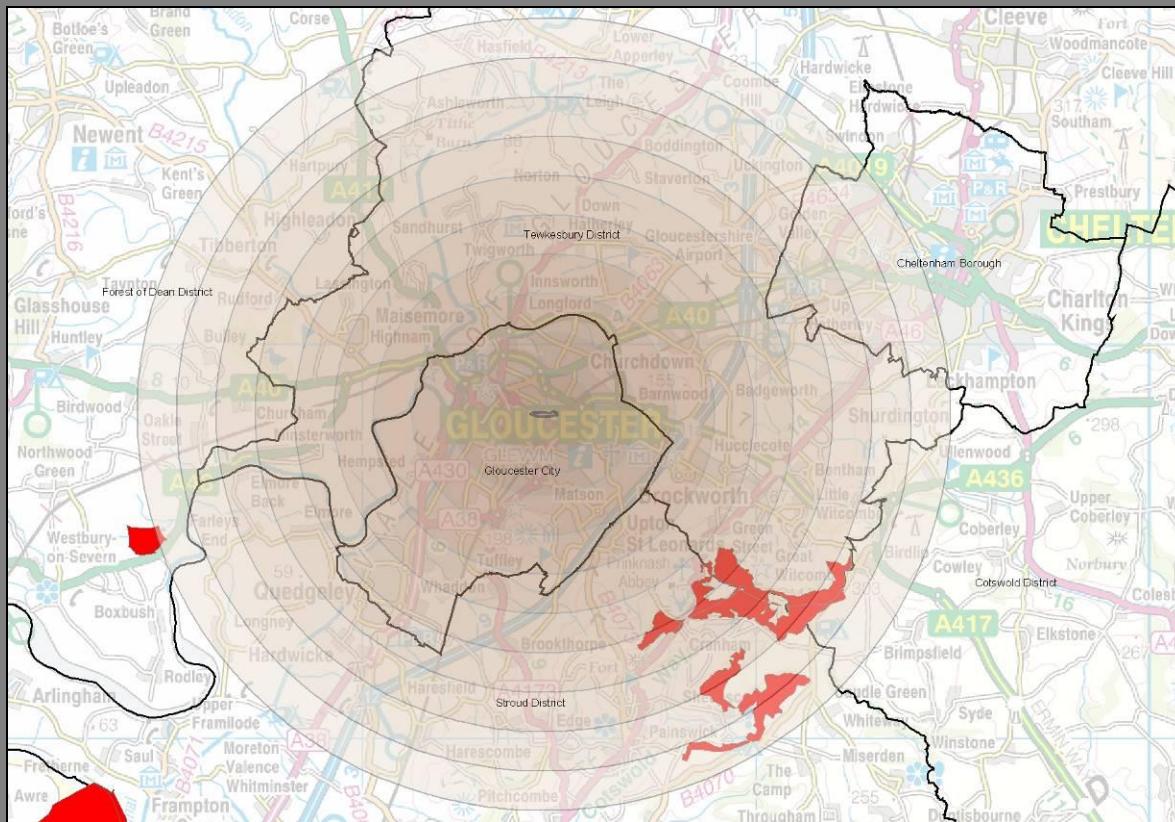
■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.

Potential Pollution Pathways from Waste Site to European Site:

Through Water: There are two potential surface pathways from streams that enter the Gloucester & Sharpness Canal. One is over 600m away to the south and the other is ditch system adjacent to the

	<p>northern boundary. The watercourses flow into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The length of these pathways are up to approximately 17km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through <u>Air</u>: The prevailing winds are SW.</p> <p>The proposed site is approximately SE of Walmore Common, NW of Rodborough Common, and NE of the Severn Estuary and at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately W/SW of Cotswold Beechwoods and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods and its receptor (beech woodland, dry grassland and scrub) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through <u>Water</u>: There are two potential surface pathways from streams that enter the Gloucester &</p>

<p>Sharpness Canal. One is over 600m away to the south and the other is ditch system adjacent to the northern boundary. The watercourses flow into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The length of these pathways are up to approximately 17km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>	
<p>Through <u>Air</u>: None identified.</p>	
<p>Through <u>Land</u> (including via Physical Disturbance): None identified.</p>	
<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>	
<p>Score: U</p>	



Site name: Site 7. Land north of Railway Triangle, Gloucester.

Area: c. 5.5 ha.

European sites in proximity:

- Within 1 km:
- Within 2 km:
- Within 5 km:
- Within 10 km: **Cotswold Beechwoods SAC** is 5.4km away & **Walmore Common SPA/Ramsar** is 9.8km away (see site summary details in screening task A above)

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.

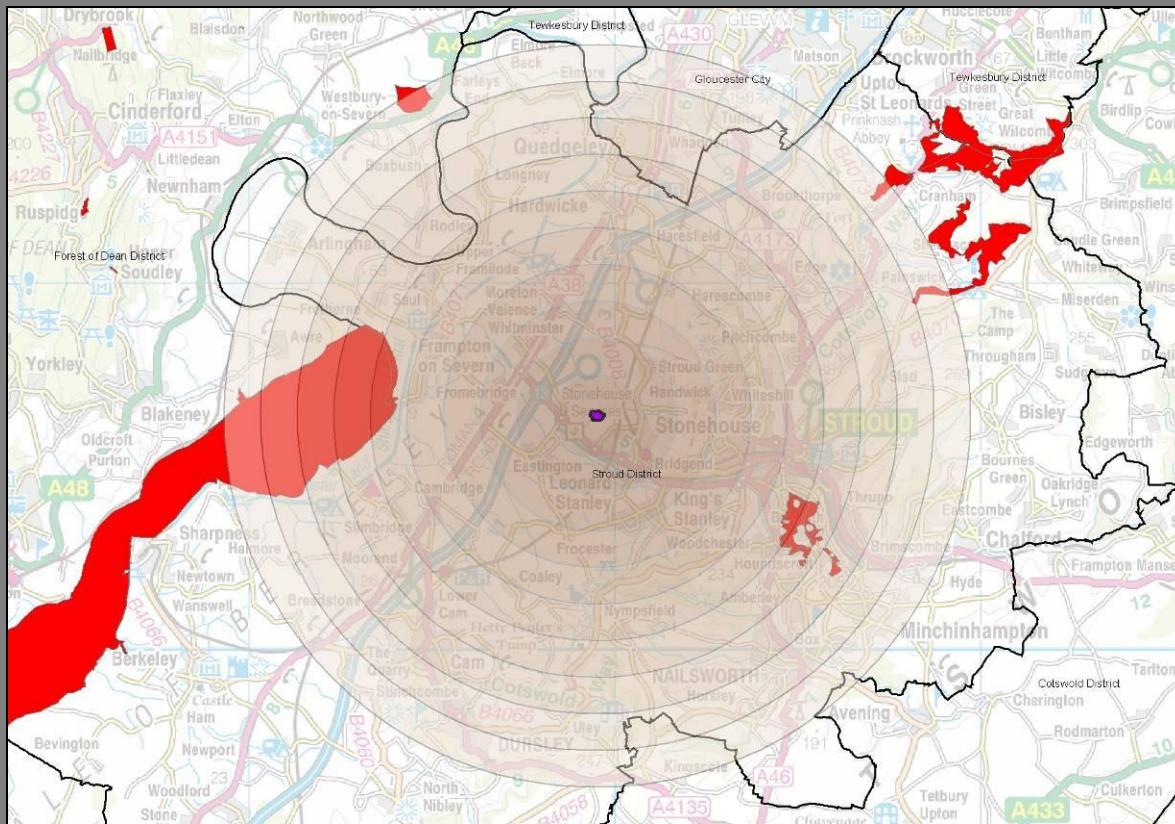
Potential Pollution Pathways from Waste Site to European Site:

Through Water: None identified but see further comments below.

Through Air: The prevailing winds are SW.

	<p>The proposed site is approximately E/NE of Walmore Common and NW of Cotswold Beechwoods and at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>A hydraulic pathway to the River Severn and hence Severn Estuary cannot be completely ruled out. Likelihood of a significant effect on the Severn Estuary though is considered to be very low with normal waste management controls in place and the distance away via water.</p>
	<p>Score: U</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through <u>Water</u>: None identified but see further comments below.</p>
	<p>Through <u>Air</u>: None identified</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>A hydraulic pathway to the River Severn and hence</p>

	<p>Severn Estuary cannot be completely ruled out. Likelihood of a significant effect on the Severn Estuary though is considered to be very low with normal waste management controls in place and the distance away via water.</p>
	<p>Score: NLSE</p>



Site name: Site 8. Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud.

Area: c. 8.5 ha.

European sites in proximity:

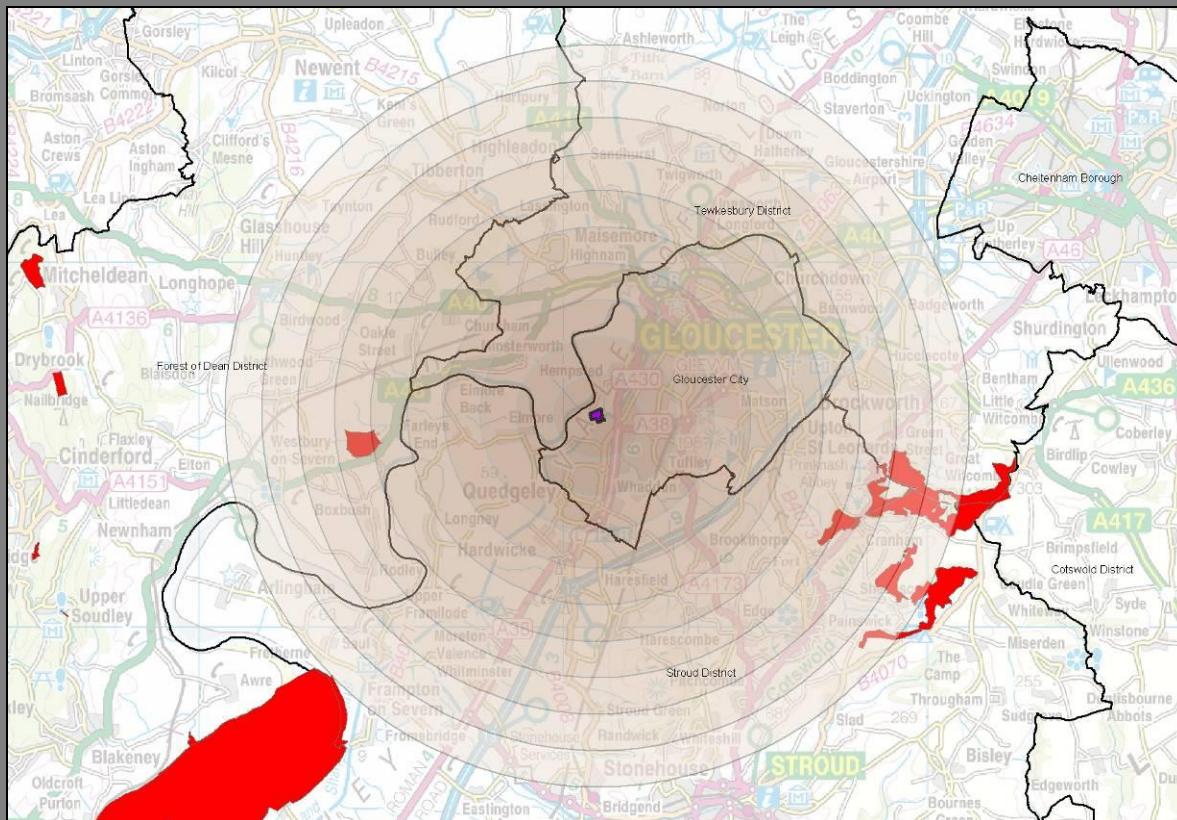
- Within 1 km:
- Within 2 km:
- Within 5 km:
- Within 10 km: **Severn Estuary SAC/SPA/Ramsar** is 5.3km away, **Rodborough Common SAC** is 5.6km away, **Cotswold Beechwoods SAC** is 8.9km away & **Walmore Common SPA/Ramsar** is 9.4km away (see site summary details in screening task A above)

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

<p>■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.</p>	<p>Potential Pollution Pathways from Waste Site to European Site:</p>
	<p>Through Water: A potential surface pathway to the Severn Estuary exists via an un-named stream almost adjacent to the south of the proposed site. The stream flows into the River Frome at</p>

	<p>Eastington Trading Estate. The River Frome then meets the estuary at Upper Framilode. The length of this pathway is up to approximately 21km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing winds are SW.</p> <p>The proposed site is approximately SE of Walmore Common, NW of Rodborough Common, and E of the Severn Estuary and at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately SW of Cotswold Beechwoods and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods and its receptor (beech woodland, dry grassland and scrub) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through Land (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through Water: A potential surface pathway to the Severn Estuary exists via an un-named stream almost adjacent to the south of the proposed site. The stream flows into the River Frome at</p>

<p>Eastington Trading Estate. The River Frome then meets the estuary at Upper Framilode. The length of this pathway is up to approximately 21km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>	
<p>Through <u>Air</u>: None identified.</p>	
<p>Through <u>Land</u> (including via Physical Disturbance): None identified.</p>	
<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>	
<p>Score: U</p>	



Site name: Site 9. Netheridge Sewage Treatment Works, Gloucester

Area: c. 8.5 ha.

European sites in proximity:

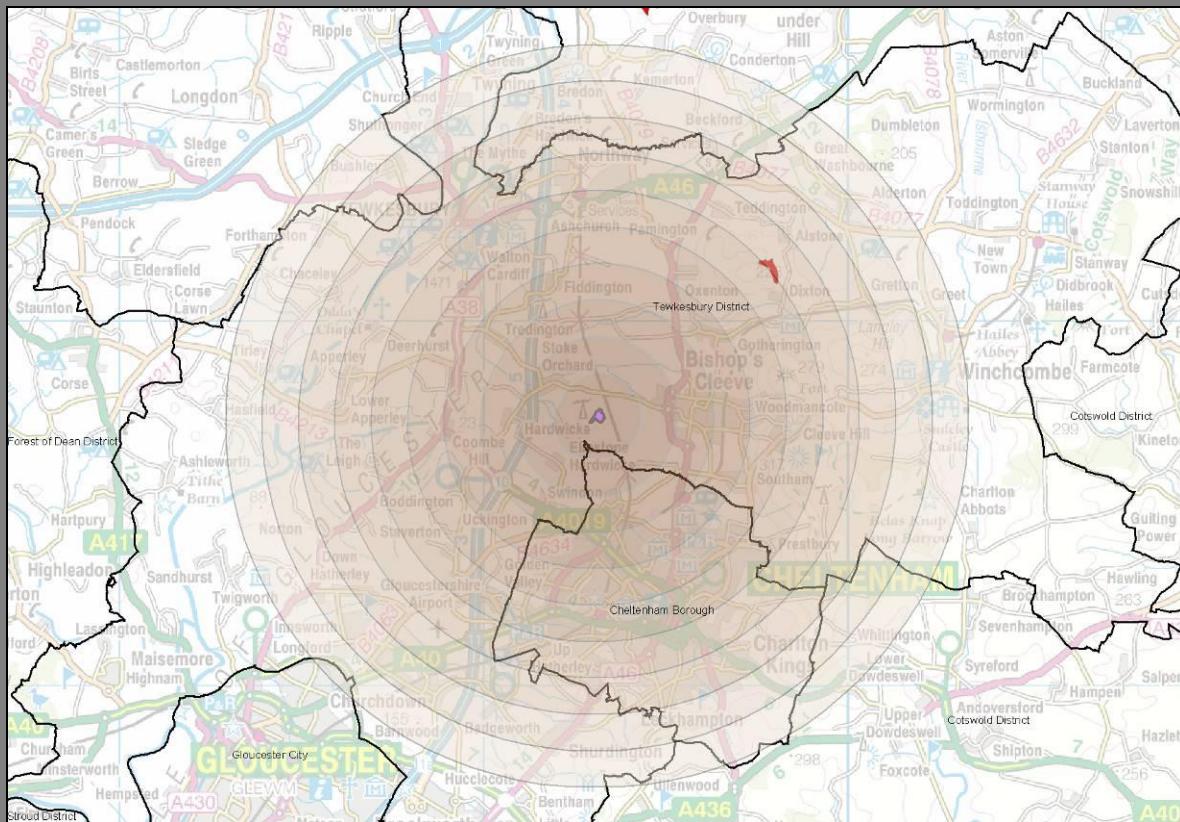
- Within 1 km:
- Within 2 km:
- Within 5 km:
- Within 10 km: **Walmore Common SPA/Ramsar** is 5.7km away, **Cotswold Beechwoods SAC** is 6.7km away & **Severn Estuary SAC/SPA/Ramsar** is 10.0km away. (see site summary details in screening task A above).

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

<p>■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.</p>	<p>Potential Pollution Pathways from Waste Site to European Site:</p>
	<p>Through Water: A potential surface pathway to the Severn Estuary exists as this site abuts both the River Severn and the Gloucester & Sharpness Canal. The minimum length of this pathway (via</p>

	<p>Canal) is up to approximately 22 km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing winds are SW.</p> <p>The proposed site is approximately E of Walmore Common, NW of Cotswold Beechwoods, and NE of the Severn Estuary and at a distance of less or equal to 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p>
	<p>Through Land (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p>
	<p>Score: U</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through Water: A potential surface pathway to the Severn Estuary exists as this site abuts both the River Severn and the Gloucester & Sharpness Canal. The minimum length of this pathway (via Canal) is up to approximately 22km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: None identified</p>

	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p>
	<p>Score: U</p>



Site name: Site 10. The Park, Wingmoor Farm West, Tewkesbury

Area: c.4.3 ha.

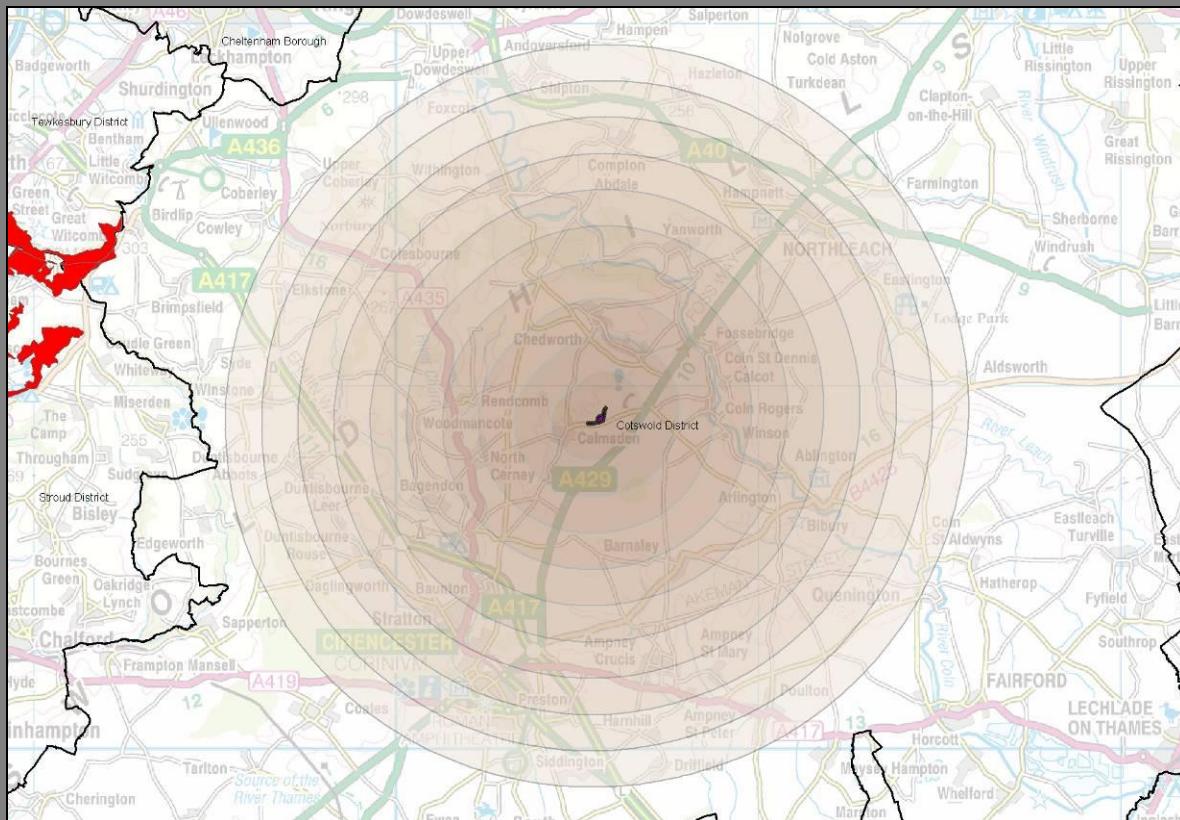
European sites in proximity:

- **Within 1 km:**
- **Within 2 km:**
- **Within 5 km:**
- **Within 10 km:** **Dixton Wood SAC** is 5.9km away (see summary details in screening task A above).

Proposed use: Strategic residual waste treatment facility. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

<p>■ Assumed generic thermal treatment facility with a capacity of 150,000 to 270,000 tpa and a stack height of up to 80 m.</p>	<p>Potential <u>Pollution Pathways</u> from Waste Site to European Site:</p>
	<p>Through <u>Water</u>: None identified</p>
	<p>Through <u>Air</u>: The prevailing winds are SW.</p>

	<p>The proposed site is SW of Dixton Wood and at a distance of less than 10km. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Dixton Wood and its receptor (Violet Click Beetle) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p>
	<p>Score: LSE</p>
<ul style="list-style-type: none"> ■ Assuming non-thermal treatment facility with a capacity of 150,000 to 270,000 tpa. 	<p>Through <u>Water</u>: None identified</p>
	<p>Through <u>Air</u>: None identified</p>
	<p>Through <u>Land</u> (including via Physical Disturbance): None identified</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None.</p>
	<p>Score: NLSE</p>



Site name: Site 1a. Foss Cross Industrial Estate

Area: c.6.4 ha.

European sites in proximity: None

- **Within 1 km:**
- **Within 2 km:**
- **Within 5 km:**
- **Within 10 km:**

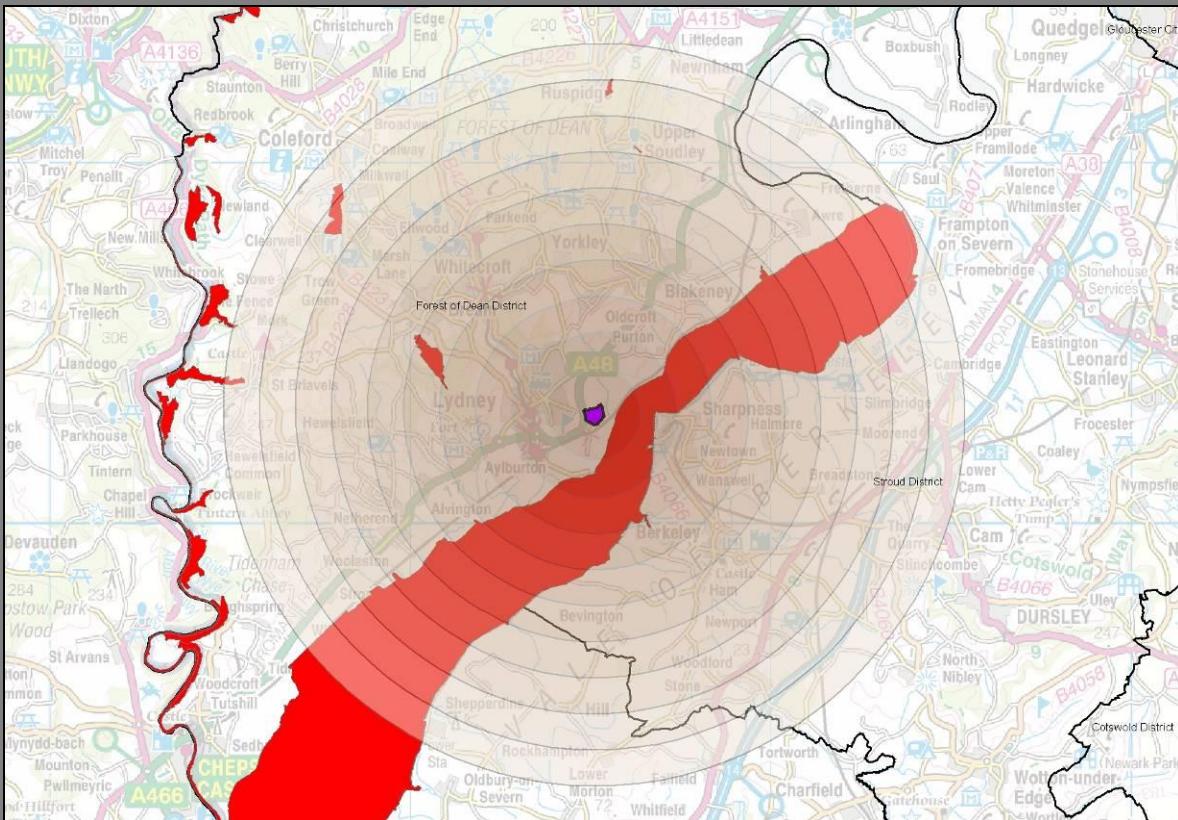
Proposed use: **Smaller scale** residual waste treatment facility / transfer. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

- Assumed small scale generic thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa and a stack height of c.40 to 50m.
- Assuming smaller scale non-thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa.

■ Assumed generic thermal treatment facility with a capacity of >50,000 tpa or c.50,000 to 100,000 tpa with a stack height of c.40 to 50m.

Potential Pollution Pathways from Waste Site to European Site:

	<p>Through <u>Water</u>: None identified</p> <p>Through <u>Air</u>: None identified</p> <p>Through <u>Land (including via Physical Disturbance)</u>: None identified</p> <p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p> <p>Score: NLSE</p>
<p>■ Assuming non-thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa.</p>	<p>Through <u>Water</u>: None identified</p> <p>Through <u>Air</u>: None identified</p> <p>Through <u>Land (including via Physical Disturbance)</u>: None identified</p> <p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>None</p> <p>Score: NLSE</p>



Site name: Site 2a. Hurst Farm Lydney

Area: c.20 ha.

European sites in proximity:

- Within 1 km: **Severn Estuary SAC/SPA/Ramsar** is 0.3km away.
- Within 2 km:
- Within 5 km: **Wye Valley & Forest of Dean Bat Sites SAC** is 3.8km away.
- Within 10 km: **Wye Valley Woodlands SAC** is 9.5km away.

(see site summary details in screening task A above).

Proposed use: **Smaller scale** residual waste treatment facility / transfer. For the purposes of this screening report, thermal (energy from waste) technology is assumed as a potential option. Note: at the time of writing the County Council have made no decisions on technology.

- Assumed small scale generic thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa and a stack height of c.50m.
- Assuming smaller scale non-thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa.

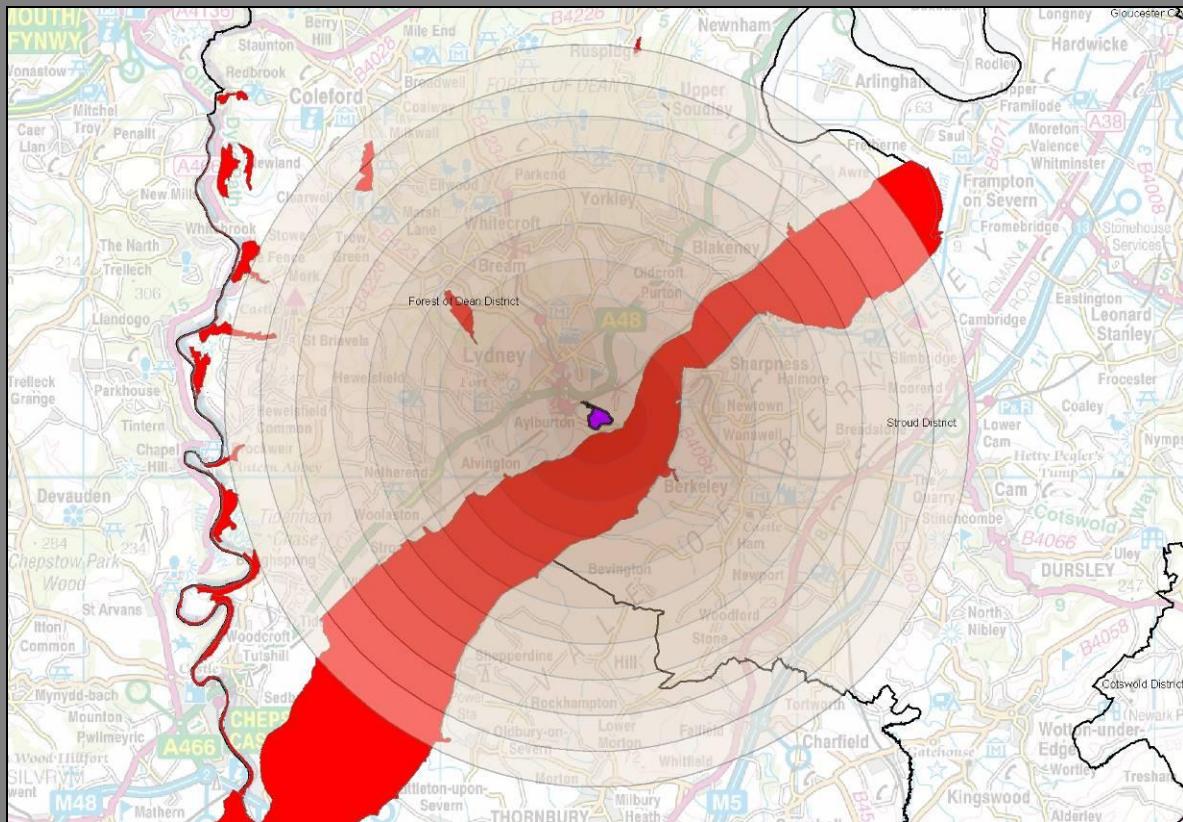
- Assumed generic thermal treatment facility with a

Potential Pollution Pathways from Waste Site to

<p>capacity of >50,000 tpa or c.50,000 to 100,000 tpa with a stack height of c.40 to 50m.</p>	<p>European Site:</p>
	<p>Through Water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is approximately 2km. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing wind direction is SW. The proposed site is N, E & SW of the Severn Estuary which lies at around 300m at its closest point. Localised and more distant effects are possible (given the prevailing wind direction). Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately SE/E/NE of both Wye Valley Woodlands and Wye Valley & Forest of Dean Bat Sites at a distance of less than 10km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p>
	<p>Through Land (including via Physical Disturbance): Due to the proximity of the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. The land take for the facility might also mean a habitat loss for wetland birds during high tides especially in the winter. Therefore it cannot be ruled out that there could be a Likely Significant Effect through land if a waste facility is established at this site.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p>

	<p>None</p> <p>Score: LSE</p>
<ul style="list-style-type: none"> Assuming non-thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa. 	<p>Through Water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is approximately 2km. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing wind direction is SW.</p> <p>The proposed site is N, E & SW of the Severn Estuary which lies at around 300m at its closest point. Localised effects are possible (e.g. dust). So there could be an uncertain effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish).</p>
	<p>Through Land (including via Physical Disturbance): Due to the proximity of the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. The land take for the facility might also mean a habitat loss for wetland birds during high tides especially in the winter. If a land fill option were chosen then there would be added potential for adverse impacts on the Severn Estuary from increased predators being attracted to the locality. Increased numbers of predators such as corvids may have an effect on birds that characterise the importance of the Severn Estuary. Therefore it cannot be ruled out that there could be a Likely Significant Effect through land if a waste facility is established at this site.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10km and further if though hydrological connection).</p> <p>No Likely Significant Effect is concluded for the</p>

	Wye Valley Woodlands or Wye Valley & Forest of Dean Bats sites from a non-thermal treatment facility at this site.
	Score: LSE



Site name: Site 3a. Land at Lydney Industrial Estate.

Area: c.28 ha.

European sites in proximity:

- **Within 1 km:** **Severn Estuary SAC/SPA/Ramsar** is 0.2km away.
- **Within 2 km:**
- **Within 5 km:** **Wye Valley & Forest of Dean Bat Sites SAC** is 3.3km away.
- **Within 10 km:** **Wye Valley Woodlands SAC** is 8.7 km away.

(see site summary details in screening task A above)

<p>■ Assumed generic thermal treatment facility with a capacity of >50,000 tpa or c.50,000 to 100,000 tpa with a stack height of c.40 to 50m.</p>	<p>Potential Pollution Pathways from Waste Site to European Site:</p>
	<p>Through Water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook and Lydney Canal/Harbour which leads to the Severn Estuary. The minimum length</p>

	<p>of this pathway (via Canal) is only a few hundred metres. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through <u>Air</u>: The prevailing wind direction is SW.</p> <p>The proposed site is N, E & SW of the Severn Estuary which lies at around 200m at its closest point. Localised and more distant effects are possible (given the prevailing wind direction). Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p>The proposed site is approximately SE/E/NE of both Wye Valley Woodlands and Wye Valley & Forest of Dean Bat Sites at a distance of less than 10 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to these sites and their receptors if a generic thermal treatment facility is established at this site.</p>
	<p>Through <u>Land (including via Physical Disturbance)</u>: Due to the proximity of the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. However this site is already in industrial use and is a fairly busy site so birds and other wildlife will already be accustomed to this. New land take for the facility that is not already in industrial use is likely to be limited in its impact on bird habitat. However suitable blocks of habitat for birds (resting up/roosting) do exist in the W and NW of the site area. It has to be concluded at this stage that the impact of the proposed waste site is uncertain.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10 km and further if though hydrological connection).</p> <p>None</p>

	<p>Score: LSE</p>
<ul style="list-style-type: none"> Assuming non-thermal treatment facility with a capacity of >50,000 or c.50,000 to 100,000 tpa. 	<p>Through Water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook and Lydney Canal/Harbour which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is only a few hundred metres. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p>
	<p>Through Air: The prevailing wind direction is SW.</p> <p>The proposed site is N, E & SW of the Severn Estuary which lies at around 200m at its closest point. Localised effects are possible (e.g. dust). So there could be an uncertain effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish).</p>
	<p>Through Land (including via Physical Disturbance): Due to the proximity of the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. However this site is already in industrial use and is a fairly busy site so birds and other wildlife will already be accustomed to this. New land take for the facility that is not already in industrial use is likely to be limited in its impact on bird habitat. However suitable blocks of habitat for birds (resting up/roosting) do exist in the W and NW of the site area. It has to be concluded at this stage that the impact of the proposed waste site is uncertain.</p>
	<p>Further comments including on potential effects on the qualifying features of European sites (within 10 km and further if though hydrological connection).</p> <p>No Likely Significant Effect is concluded for the Wye Valley Woodlands or Wye Valley & Forest of Dean Bats sites from a non-thermal treatment facility at this site.</p>

Score: U

11. Screening Task C

Screening Task C is a consideration of other plans, programmes or projects that may have in-combination effects with the WCS. However this is basically a task that only needs to be done in detail if an Appropriate Assessment is required on a site option. (See Table 1 which indicates that at Stage 1 of the HRA process (Screening) account should be taken of the potential 'in-combination' effects of other plans and projects. At Stage 2 (Appropriate Assessment) plan makers should consider how the plan 'in-combination' with other plans and projects will interact when implemented (Note: this is the Appropriate Assessment process).

The following Table 6 is thus a brief assessment of the sorts of plans and projects that should be considered – these are already detailed in Gloucestershire's latest HRA Evidence Gathering / Baseline Report (Update 2) August 2009.

Table 6. Detail of Screening Task C

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
Rodborough Common SAC	Dry grassland & scrub	<p><u>Site 4: Javelin Park</u> is approximately NW of Rodborough Common at a distance of 7.6 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Rodborough Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 5: Land Adjacent to Quadrant Business Centre</u> is approximately NW of Rodborough Common at a distance of 8.9 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Rodborough Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 6: Land at Moreton Valence</u> is approximately NW of Rodborough Common at a distance of 7.9 km. Using the buffering approach there could be an effect but the likelihood</p>	Uncertain. Uncertain. Uncertain.	<p>PLANS: To be advised by consultees and by HRA Reports produced by Stroud District Council. Uncertain impacts from: -Plans within Stroud District Council's Local Development Framework & potentially other District LDFs within Gloucestershire. -Adopted Stroud Local Plan. -Gloucestershire Waste Local Plan. -Gloucestershire Minerals Local Plan. -South West RSS.</p> <p>PROJECTS: To be advised by consultees and by HRA Reports produced by Stroud District Council. Uncertain impacts from: -Cotswolds Canal Restoration Project. -Proposed RSS housing growth in reasonably close</p>	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>is that there would be an uncertain impact from potential atmospheric changes to Rodborough Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 8: Nastend Farm</u> is approximately NW of Rodborough Common at a distance of 5.6 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Rodborough Common and its receptors if a generic thermal treatment facility is established at this site.</p>	Uncertain.	<p>proximity to Rodborough.</p> <ul style="list-style-type: none"> -Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on Rodborough Common including increases in traffic flows near to or over the common. <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	
Dixton Wood SAC	Violet click beetle	<p>Site 1: Areas A, B & C at Wingmoor Farm East is SW of Dixton Wood at a distance of 5.2 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Dixton Wood and their receptors if a generic thermal treatment facility is established at this site.</p> <p>Site 2: Areas A, B & C at Wingmoor Farm West is SW of Dixton Wood at a distance of 5.8 km. The prevailing winds are SW. Using the buffering approach there could be a Likely</p>	<p>Likely Significant Effect.</p> <p>Likely Significant Effect.</p>	<p>PLANS:</p> <p>To be advised by consultees and by HRA Reports produced by Tewkesbury Borough Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Plans within Tewkesbury Borough Council's Local Development Framework & other District LDFs within Gloucestershire. -Adopted Tewkesbury Local Plan. -Gloucestershire Waste Local Plan. 	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>Significant Effect from potential atmospheric changes to Dixton Wood and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Site 3: Easter Park is approximately NW of Dixton Wood at a distance of 5.6 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Dixton Wood and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Site 10: The Park is SW of Dixton Wood at a distance of 5.9 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Dixton Wood and its receptors if a generic thermal treatment facility is established at this site.</p>	<p>Uncertain.</p> <p>Likely Significant Effect.</p>	<p>-Gloucestershire Minerals Local Plan.</p> <p>-South West RSS.</p> <p>PROJECTS: To be advised by consultees and by HRA Reports produced by Tewkesbury Borough Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -National Grid gas pipeline project. -Proposed Gloucester Parkway Station. -Proposed RSS or other housing growth in reasonably close proximity to Dixton Wood. -Various waste disposal operations at Wingmoor Farm. Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on Dixton Wood. <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	
Wye Valley &	Horseshoe bats	Site 2a: Hurst Farm is approximately	Uncertain.	PLANS:	Uncertain. Further

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
Forest of Dean Bat Sites SAC		SE/E/NE of Wye Valley & Forest of Dean Bat Sites at a distance of 3.8 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Wye Valley & Forest of Dean Bat Sites and receptors if a generic thermal treatment facility is established at this site.		<p>To be advised by consultees and by HRA Reports produced by the Forest of Dean District Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Plans within the Forest of Dean District Council's Local Development Framework & potentially other District LDFs within Gloucestershire. -Adopted Forest of Dean Local Plan. -Monmouthshire County Council's (Unitary Authority) Development Plan. -Gloucestershire Waste Local Plan. Gloucestershire Minerals Local Plan. -Wye Valley AONB Management Plan. -South West RSS. <p>PROJECTS: To be advised by consultees and by HRA Reports produced by the Forest of Dean District Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Cinderford Regeneration Project – including the 	investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
				<p>Northern Quarter Area Action Plan.</p> <p>-Lydney Docks Regeneration Project.</p> <p>-Proposed housing at East Lydney.</p> <p>-Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on the Wye Valley & Forest of Dean Bat Sites.</p> <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	
River Wye SAC	<p>Water courses of plain to montane levels with water crowfoot & starwort</p> <p>Transition mires and quaking bogs</p> <p>White-clawed crayfish</p> <p>Sea lamprey</p> <p>Brook lamprey</p> <p>River lamprey</p> <p>Twaite shad</p> <p>Atlantic salmon</p>	<p>No proposed waste sites within 10 km.</p>	<p>No Likely Significant Effect.</p>	<p>None identified.</p>	<p>No, none identified.</p>

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
	Bullhead Allis shad Otter				
Wye Valley Woodlands SAC	Beech/Yew/Lime woodland Lesser horseshoe bat	Site 2a. Hurst Farm is approximately SE/E/NE of the Wye Valley Woodlands at a distance of 9.5 km. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Wye Valley Woodlands and receptors if a generic thermal treatment facility is established at this site.	Uncertain.	PLANS: To be advised by consultees and by HRA Reports produced by the Forest of Dean District Council. Uncertain impacts from: -Plans within the Forest of Dean District Council's Local Development Framework & potentially other District LDFs within Gloucestershire. -Adopted Forest of Dean Local Plan. Monmouthshire County Council's Unitary Development Plan. -Relevant plans within Herefordshire Council's (Unitary Authority) Local Development Framework. -Gloucestershire Waste Local Plan -Gloucestershire Minerals Local Plan. -Wye Valley AONB Management Plan. -South West RSS.	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
				<p>PROJECTS: To be advised by consultees and by HRA Reports produced by the Forest of Dean District Council. Uncertain impacts from: -National Grid gas pipeline project. -Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on the Wye Valley Woodlands.</p> <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	
North Meadow and Clattinger Farm SAC	Lowland hay meadows	No proposed waste sites within 10 km.	No Likely Significant Effect.	None identified.	No, none identified.
Cotswold Beechwoods SAC	Beech woodland Dry Grassland & scrub	<u>Site 4: Javelin Park</u> is approximately W/SW of the Cotswold Beechwoods at a distance of 7.1 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods its receptors which cannot be ruled out if a generic	Likely Significant Effect.	<p>PLANS: To be advised by consultees and by HRA Reports produced by Stroud District Council. Uncertain impacts from: -Stroud District Council's emerging Local Development Framework.</p>	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>thermal treatment facility is established at this site.</p> <p><u>Site 5. Land adjacent to Quadrant Business Centre</u> is approximately W of the Cotswold Beechwoods at a distance of 6.0 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods its receptors which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p><u>Site 6. Land at Moreton Valence</u> is approximately W/SW of the Cotswold Beechwoods at a distance of 8.0 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods its receptors which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p><u>Site 7. Land north of Railway Triangle</u> is approximately W/SW of the Cotswold Beechwoods at a distance of 5.4 km. The prevailing winds are SW. Using the buffering approach there could be an effect but</p>	<p>Likely Significant Effect.</p> <p>Likely Significant Effect.</p> <p>Uncertain.</p>	<ul style="list-style-type: none"> -Adopted Stroud Local Plan. -Any relevant plans within Tewkesbury Borough Council's emerging Local Development Framework. -Adopted Tewkesbury Local Plan. -Any relevant plans within Cotswold District Council's emerging Local Development Framework. -Adopted Cotswold Local Plan. -Gloucestershire Waste Local Plan. -Gloucestershire Minerals Local Plan. -South West RSS. <p>PROJECTS: To be advised by consultees and by HRA Reports produced by Stroud District Council & Tewkesbury Borough Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Cotswolds Canal Restoration Project. -Housing and associated infrastructure at Hunts Grove and other RSS proposed housing growth 	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Cotswold Beechwoods and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 8. Nastend Farm</u> is approximately SW of the Cotswold Beechwoods at a distance of 8.9 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Cotswold Beechwoods its receptors which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p><u>Site 9. Netheridge Sewage Treatment Works</u> is approximately NW of the Cotswold Beechwoods at a distance of 6.7 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Cotswold Beechwoods and its receptors if a generic thermal treatment facility is established at this site.</p>	<p>Likely Significant Effect.</p> <p>Uncertain.</p>	<p>near to this site.</p> <ul style="list-style-type: none"> -Proposed Gloucester Parkway Station. -Various waste disposal and management operations at Wingmoor Farm. -Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on the Cotswold Beechwoods. <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
Bredon Hill SAC	Violet click beetle	<p>Site 3: Easter Park is approximately SW of Bredon Hill and at a distance of 5.5 km. The prevailing winds are SW. Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to Bredon Hill and its receptors if a generic thermal treatment facility is established at this site.</p>	Likely Significant Effect.	<p>PLANS: To be advised by consultees and by HRA Reports produced by Worcestershire County Council & Wychavon District Council. Uncertain impacts from: -Worcestershire County Council's Minerals & Waste Development Framework. -Worcestershire Waste Local Plan. -Worcestershire Minerals Local Plan. -Any relevant plans within Wychavon District Council's emerging Local Development Framework. -Adopted Wychavon Local Plan. -Plans within Tewkesbury Borough Council's Local Development Framework. -Adopted Tewkesbury Borough Local Plan. -Gloucestershire Waste Local Plan. -Gloucestershire Minerals Local Plan. -West Midlands RSS.</p> <p>PROJECTS: To be advised by</p>	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
				<p>consultees and by HRA Reports produced by Worcestershire County Council & Wychavon District Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -RSS housing growth and associated infrastructure relatively close to the site. -Various waste disposal and management operations at Wingmoor Farm. -Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on Bredon Hill. <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	
Walmore Common SPA/Ramsar	Bewick's swan	<u>Site 4. Javelin Park</u> is approximately SE of Walmore Common at a distance of 6.7 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Walmore Common and its receptors if a	Uncertain.	<p>PLANS:</p> <p>To be advised by consultees and by HRA Reports produced by the Forest of Dean District Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Any relevant plans within the Forest of Dean District 	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>generic thermal treatment facility is established at this site.</p> <p><u>Site 5. Land adjacent to Quadrant Business Centre</u> is approximately SE of Walmore Common at a distance of 6.3 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Walmore Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 6. Land at Moreton Valence</u> is approximately W/SW of Walmore Common at a distance of 6.3 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Walmore Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 7. Land north of Railway Triangle</u> is approximately E/NE of Walmore Common at a distance of 9.8 km. The prevailing winds are SW. Using the buffering approach there</p>	Uncertain. Uncertain. Uncertain.	<p>Council's emerging Local Development Framework.</p> <ul style="list-style-type: none"> -Adopted Forest of Dean Local Plan. -Gloucestershire Waste Local Plan. -Gloucestershire Minerals Local Plan. -South West RSS. <p>PROJECTS:</p> <p>To be advised by consultees and by HRA Reports produced by the Forest of Dean District Council. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Development of wind turbines or wind farms along the Severn Estuary and the area around Walmore Common. -Development of a telecommunications mast system in the area around the common. -Open access on common land. -Operation of sluice and water levels; implementation of a Water Level Management Plan and ditch management rotation. 	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Walmore Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 8. Nastend Farm</u> is approximately SE of Walmore Common at a distance of 9.4 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Walmore Common and its receptors if a generic thermal treatment facility is established at this site.</p> <p><u>Site 9. Netheridge Sewage Treatment Works</u> is approximately E of Walmore Common at a distance of 5.7 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to Walmore Common and its receptors if a generic thermal treatment facility is established at this site.</p>	Uncertain.	<p>-Any other major development identified in Development plans (or elsewhere) with the potential to have a significant effect on Walmore Common.</p> <p>[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].</p>	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
Severn Estuary SAC, SPA/Ramsar	<p>Estuary Subtidal sandbanks Intertidal mudflats and sandflats Atlantic salt meadows Reefs</p> <p>River lamprey Sea lamprey Twaite shad Allis Shad Salmon Sea Trout Eel</p> <p>Bewick's swan European white-fronted goose Dunlin Redshank Shelduck Gadwall Curlew Pintail Ringed plover Teal Pochard Tufted duck Grey plover Whimbrel Spotted redshank Lapwing Mallard Shoveler</p>	<p><u>Site 4. Javelin Park</u> is approximately NE of the Severn Estuary at a distance of 6.3 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Severn Estuary and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Through water: A potential surface pathway to the Severn Estuary exists via the Beaurepair Brook which lies very close to this proposed site. The brook flows into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The length of this pathway is up to approximately 20 km. Although at some distance, and there would be large dilution effects, it has to be concluded at this stage that the impact of the proposed waste site (for thermal & non-thermal use) is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p><u>Site 5. Land adjacent to Quadrant Business Centre</u> is approximately NE</p>	Uncertain. Uncertain. Uncertain.	<p>PLANS: To be advised by consultees and by HRA Reports produced by authorities bordering the estuary. Uncertain impacts from:</p> <ul style="list-style-type: none"> -Any relevant plans within the Forest of Dean District Council's emerging Local Development Framework. -Adopted Forest of Dean Local Plan. -Any relevant plans within Stroud District Council's emerging Local Development Framework. -Adopted Stroud District Council Local Plan. -Any relevant plans within South Gloucestershire Council's emerging Local Development Framework. -Adopted South Gloucestershire Local Plan. -Adopted South Gloucestershire Minerals & Waste Local Plan. -Any relevant plans within Bristol City Council's emerging Local Development Framework. -Adopted Bristol City Council Local Plan. 	Uncertain. Further investigation required should an Appropriate Assessment be undertaken.

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>of the Severn Estuary at a distance of 8.0 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Severn Estuary and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Through water: A potential surface pathway to the Severn Estuary exists via the Shorn Brook which lies very close to this proposed site. The brook flows into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The length of this pathway is up to approximately 20 km. Although at some distance, and there would be large dilution effects, it has to be concluded at this stage that the impact of the proposed waste site (for thermal & non-thermal use) is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p><u>Site 6. Land at Moreton Valence</u> is approximately NE of the Severn Estuary at a distance of 6.3 km. The</p>	Uncertain.	<ul style="list-style-type: none"> -Any relevant plans within North Somerset Council's emerging Local Development Framework. -Adopted North Somerset Local Plan. -Any relevant plans (including the Joint Waste Core Strategy) produced by the West of England Partnership. -Monmouthshire County Council's Development Plan. -Newport City Council's Unitary Development Plan. -Cardiff City Council's Unitary Development Plan. -The Vale of Glamorgan Council's Unitary Development Plan. -The Shoreline Management Plan. -Relevant Catchment Flood Management Plans & Catchment Abstraction Management Strategies (EA). -Severn Estuary Flood Risk Management Strategy (EA) -Severn Estuary River Basin Management Plan Rights of Way Improvement Plans. 	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Severn Estuary and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Through water: There are two potential surface pathways from streams that enter the Gloucester & Sharpness Canal. One is over 600m away to the south and the other is a ditch system adjacent to the site's northern boundary. The watercourses flow into the Gloucester & Sharpness Canal which then meets the estuary at Sharpness. The length of these pathways is up to approximately 17 km. Although at some distance, and there would be large dilution effects, it has to be concluded at this stage that the impact of the proposed waste site (for thermal & non-thermal use) is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p><u>Site 7. Land north of Railway Triangle.</u> A hydraulic pathway to the</p>	Uncertain.	<p>-Severn Estuary Partnership plans and strategies.</p> <p>-Regional Technical Statement for Aggregates (South Wales RAWP)</p> <p>Wales Regional Waste Plans.</p> <p>PROJECTS: To be advised by consultees and by HRA Reports produced by authorities bordering the estuary. Uncertain impacts from:</p> <p>Stroud -Cotswolds Canal Restoration Project. -Housing at Hunts Grove. -Activity / development at Sharpness Docks.</p> <p>Forest of Dean -Lydney Docks Regeneration Project. -Housing at East Lydney.</p> <p>Other – outside of Gloucestershire – English / East side of Estuary -Development associated with the decommissioning</p>	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>River Severn and hence the Severn Estuary cannot be completely ruled out. However the likelihood of a significant effect is considered to be very low with normal waste management controls in place and the distance away via water.</p> <p><u>Site 8. Nastend Farm</u> is approximately E of the Severn Estuary at a distance of 5.3 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Severn Estuary and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Through water: A potential surface pathway to the Severn Estuary exists via an un-named stream almost adjacent to the south of the proposed site. The stream flows into the River Frome at Eastington Trading Estate. The River Frome then meets the estuary at Upper Framilode. The length of this pathway is up to approximately 21 km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is</p>	<p>Uncertain.</p> <p>Uncertain.</p>	<p>of Berkeley power station.</p> <ul style="list-style-type: none"> -Proposals at Oldbury power station. -Avonmouth Docks. -EA flood defence proposals for Avonmouth. -Wind turbine proposals in South Gloucestershire and around Avonmouth. -Proposals at Hinkley Point B power station. <p>Other – outside of Gloucestershire – Welsh / West side of Estuary</p> <ul style="list-style-type: none"> -Development projects / activity at Chepstow Docks. -Development projects / activity at Newport Docks. -Development projects / activity at Cardiff Bay (Docks). -Development projects / activity at Newport Docks. -Development projects / activity at Barry Docks. -EA flood defence proposals for Caldicot. <p>Other –</p> <ul style="list-style-type: none"> -The Crown Estate licenses for sand and gravel dredging in English & Welsh water. 	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p><u>Site 9. Netheridge Sewage Treatment Works</u> is approximately NE of the Severn Estuary at a distance of 10.0 km. The prevailing winds are SW. Using the buffering approach there could be an effect but the likelihood is that there would be an uncertain impact from potential atmospheric changes to the Severn Estuary and its receptors if a generic thermal treatment facility is established at this site.</p> <p>Through water: A potential surface pathway to the Severn Estuary exists as this site abuts both the River Severn and the Gloucester & Sharpness Canal. The minimum length of this pathway (via Canal) is up to approximately 22 km. Although at some distance and there would be large dilution effects it has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to</p>	Uncertain.	[For more detailed information See HRA Evidence Gathering / Baseline Report (Update 2) August 2009].	

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>be sought.</p> <p><u>Site 2a. Hurst Farm</u> is N, E & SW of the Severn Estuary which lies at around 300m at its closest point. Localised and more distant effects are possible (given the prevailing wind direction). Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p>Through water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is approximately 2 km. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p>Through land (including via physical disturbance): Due to the proximity of</p>	<p>Likely Significant Effect.</p> <p>Uncertain.</p> <p>Likely Significant</p>		

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. The land take for the facility might also mean a habitat loss for wetland birds during high tides especially in the winter. Therefore it cannot be ruled out that there could be a Likely Significant Effect through land if a waste facility is established at this site.</p> <p><u>Site 2a. Hurst Farm (Assuming a non-thermal facility)</u></p> <p>Through water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is approximately 2 km. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p>Through air: The prevailing wind direction is SW. The proposed site is</p>	<p>Effect.</p> <p>Uncertain.</p> <p>Uncertain.</p>		

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>N, E & SW of the Severn Estuary which lies at around 300m at its closest point. Localised effects are possible (e.g. dust). So there could be an uncertain effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish).</p> <p>Through land: (including via Physical Disturbance): Due to the proximity of the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. The land take for the facility might also mean a habitat loss for wetland birds during high tides especially in the winter. If a land fill option were chosen then there would be added potential for adverse impacts on the Severn Estuary from increased predators being attracted to the locality. Increased numbers of predators such as corvids may have an effect on birds that characterise the importance of the Severn Estuary. Therefore it cannot be ruled out that there could be a Likely Significant Effect through land if a waste facility is established at this site.</p>	Uncertain.		

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>Site 3a. <u>Land at Lydney Industrial Estate</u> is N, E & SW of the Severn Estuary which lies at around 200m at its closest point. Localised and more distant effects are possible (given the prevailing SW wind direction). Using the buffering approach there could be a Likely Significant Effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish) which cannot be ruled out if a generic thermal treatment facility is established at this site.</p> <p>Through water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook and Lydney Canal/Harbour which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is only a few hundred metres. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work (and advice from Natural England & the Environment Agency) needs to be sought.</p> <p>Through land (including via physical disturbance): Due to the proximity of the Severn Estuary and its</p>	<p>Likely Significant Effect.</p> <p>Uncertain.</p> <p>Uncertain.</p>		

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. However this site is already in industrial use and is a fairly busy site so birds and other wildlife will already be accustomed to this. New land take for the facility that is not already in industrial use is likely to be limited in its impact on bird habitat. However suitable blocks of habitat for birds (resting up/roosting) do exist in the W and NW of the site area. It has to be concluded at this stage that the impact of the proposed waste site is uncertain.</p> <p><u>Site 3a. Land at Lydney Industrial Estate (Assuming a non-thermal facility)</u></p> <p>Through water: A potential surface pathway to the Severn Estuary exists as it abuts the catchment of Plummer's Brook and Lydney Canal/Harbour which leads to the Severn Estuary. The minimum length of this pathway (via Canal) is only a few hundred metres. It has to be concluded at this stage that the impact of the proposed waste site is uncertain. The precautionary principle applies and further work</p>	Uncertain.		

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		<p>(and advice from Natural England & the Environment Agency) needs to be sought.</p> <p>Through air: The prevailing wind direction is SW. The proposed site is N, E & SW of the Severn Estuary which lies at around 200m at its closest point. Localised effects are possible (e.g. dust). So there could be an uncertain effect from potential atmospheric changes to the Severn Estuary and its receptors (including estuarine habitats, birds and fish).</p> <p>Through land (including via physical disturbance): Due to the proximity of the Severn Estuary and its importance for birds increased noise, traffic and movements around the waste facility plus light pollution have potential for adverse impacts. However this site is already in industrial use and is a fairly busy site so birds and other wildlife will already be accustomed to this. New land take for the facility that is not already in industrial use is likely to be limited in its impact on bird habitat. However suitable blocks of habitat for birds (resting up/roosting) do exist in the W and NW of the site area. It has to be concluded at this stage that the impact of the proposed waste site is</p>	Uncertain.		

European Site	Summary of qualifying features (receptors)	Possible impacts arising from plan	Is there a risk of a significant effect?	Possible impacts from other trends, plans / projects etc	Is there a risk of significant 'in-combination' effects?
		uncertain.			
Avon Gorge Woodlands SAC	Lime woodland of slopes, scree and ravines Dry Grassland & scrub	No proposed waste sites within 10 km.	No Likely Significant Effect.	None identified.	No, none identified.

12. Screening Task D

The following table provides a basic summary of assessment scores based on the more detailed tables in this report. **Natural England** as key statutory consultee in this process is requested to provide confirmation on the need for Appropriate Assessment.

Table 7. Screening Task D summary table			
Site / Option	Screening suggests	Need for Appropriate Assessment	
Site in Zone C	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Zone C Site 1: Areas A B C Wingmoor Farm East, Tewkesbury Borough	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	NLSE	No - Natural England to confirm
Zone C Site 2: Areas A B C Wingmoor Farm West, Tewkesbury Borough	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	NLSE	No - Natural England to confirm
Zone C Site 3: Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury Borough	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	NLSE	No - Natural England to confirm
Zone C Site 4: Javelin Park, Haresfield, Stroud District	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Zone C Site 5: Land adjacent to Quadrant Business Centre, Quedgeley, Stroud District	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Zone C Site 6: Land at Moreton Valence, Stroud District	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Zone C Site 7: Land north of Railway Triangle, Gloucester	Including thermal	U	Natural England to confirm
	Excluding thermal	NLSE	No - Natural England to confirm
Zone C Site 8: Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud District	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Zone C Site 9: Netheridge Sewage Treatment Works, Gloucester	Including thermal	U	Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Zone C Site 10: The Park, Wingmoor Farm West, Tewkesbury Borough	Including thermal	LSE	Yes likely - Natural England to confirm

	Excluding thermal	NLSE	No - Natural England to confirm
Urban Growth Areas	Including thermal	U	Natural England to confirm
	Excluding thermal	U	Natural England to confirm
Site outside Zone C	Including thermal	LSE	Yes likely - Natural England to confirm
	Excluding thermal	LSE	Yes likely - Natural England to confirm
Outside Zone C Site 1a: Foss Cross Industrial Estate, Calmsden, Cotswold District	Including thermal	NLSE	No - Natural England to confirm
	Excluding thermal	NLSE	No - Natural England to confirm
Outside Zone C Site 2a: Hurst Farm, Lydney, Forest of Dean District	Including thermal	LSE	Yes - Natural England to confirm
	Excluding thermal	LSE	Yes likely - Natural England to confirm
Outside Zone C Site 3a: Land at Lydney Industrial Estate, Lydney, Forest of Dean District	Including thermal	LSE	Yes - Natural England to confirm
	Excluding thermal	U	Natural England to confirm
A combination of Zone C and Outside Zone C sites	Including thermal	LSE	Yes - Natural England to confirm
	Excluding thermal	LSE	Yes likely - Natural England to confirm

13. Conclusion / Contacts

Comments are welcome from all consultees on any aspects of this report. Detail comments are requested from **Natural England** and the **Environment Agency**. The WCS Site Options consultation runs from Monday 5th October to Monday 30th November 2009.

Contacts:

David Ingleby / Minerals & Waste Planning Policy / Environment Directorate / Gloucestershire County Council / Shire Hall / Westgate Street / Gloucester / GL1 2TH
 Tel: 01452 426338
 Email: david.ingleby@gloucestershire.gov.uk

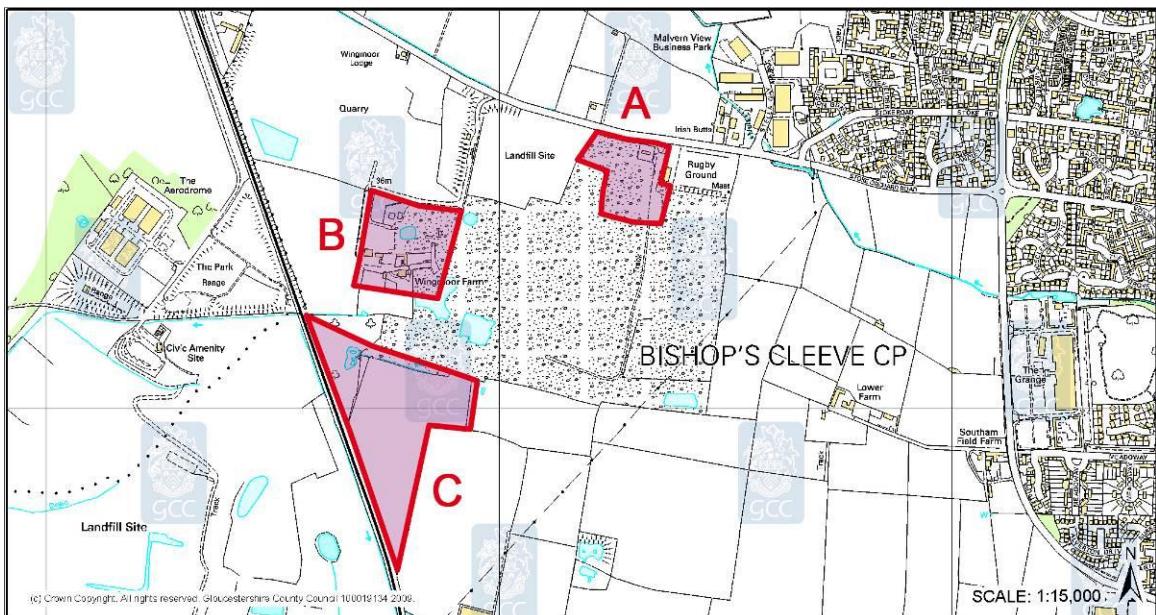
Or:

Gary Kennison / Principal Ecologist / Environment Directorate / Gloucestershire County Council
 Shire Hall / Westgate Street / Gloucester / GL1 2TH

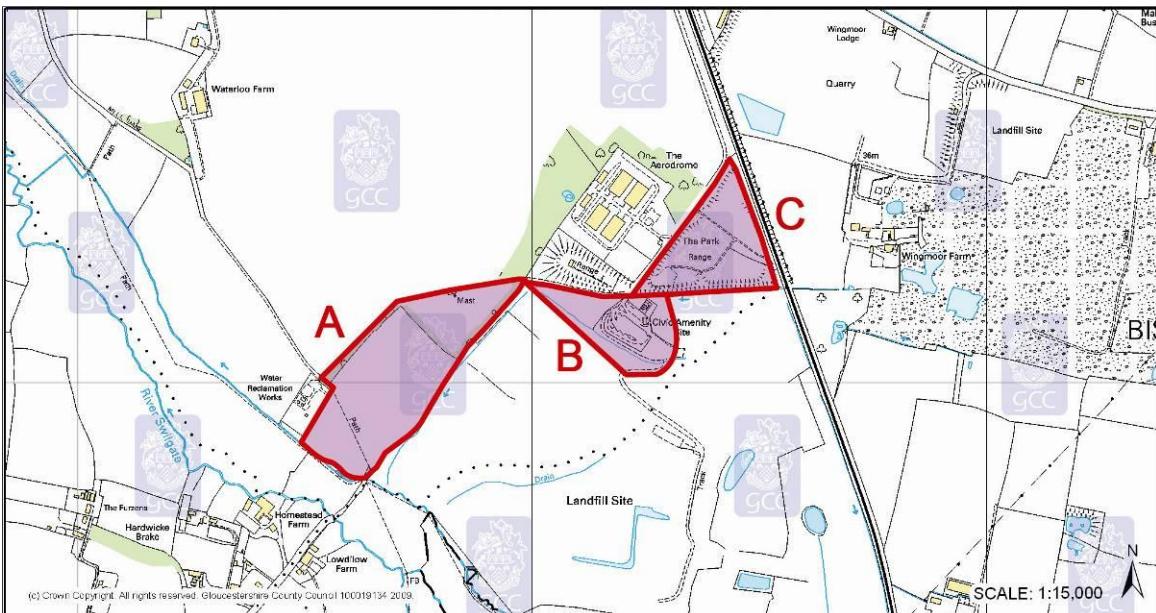
Tel: 01452 425679
 Email: gary.kennison@gloucestershire.gov.uk



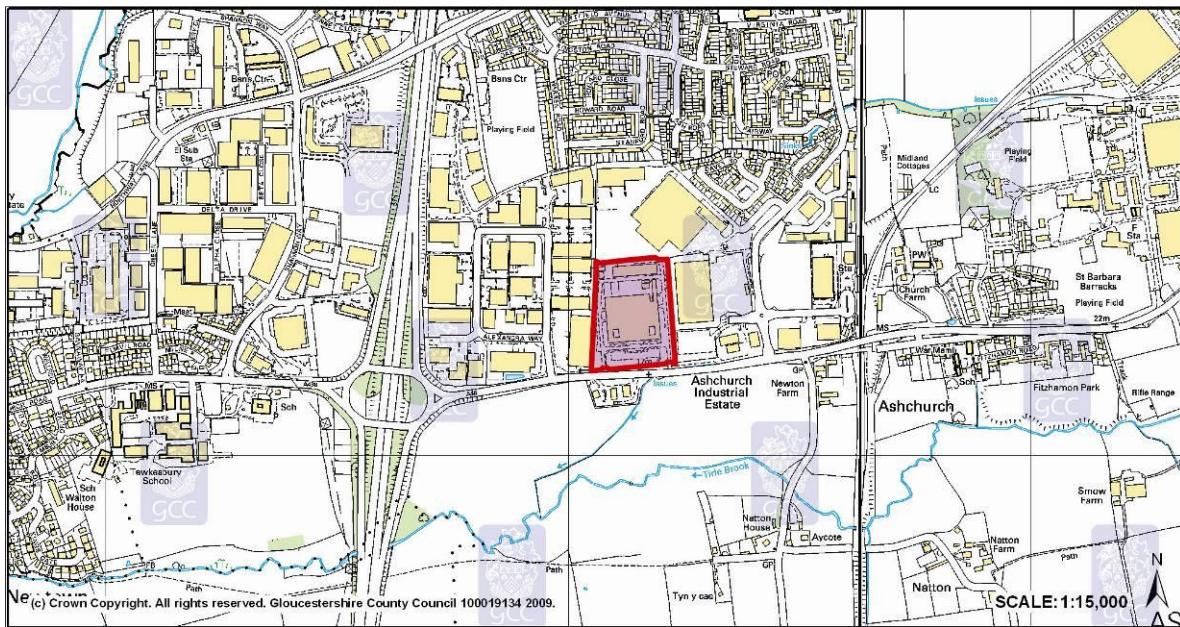
Appendix A: Detailed maps of 13 proposed waste sites



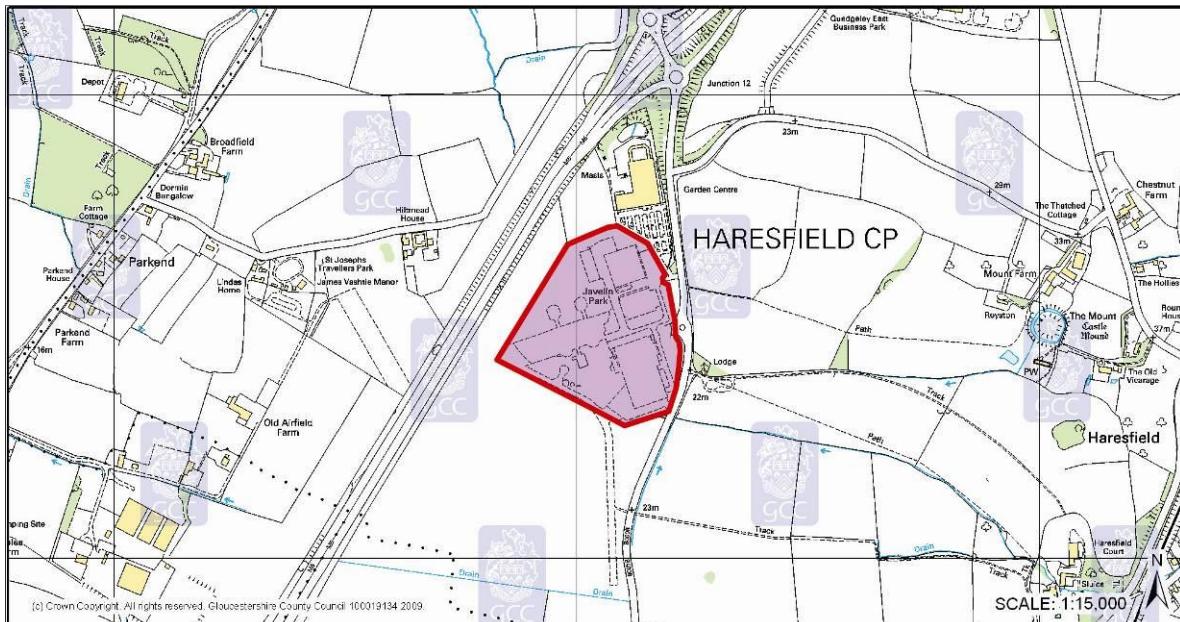
Zone C Site 1: Areas A B C Wingmoor Farm East, Tewkesbury Borough



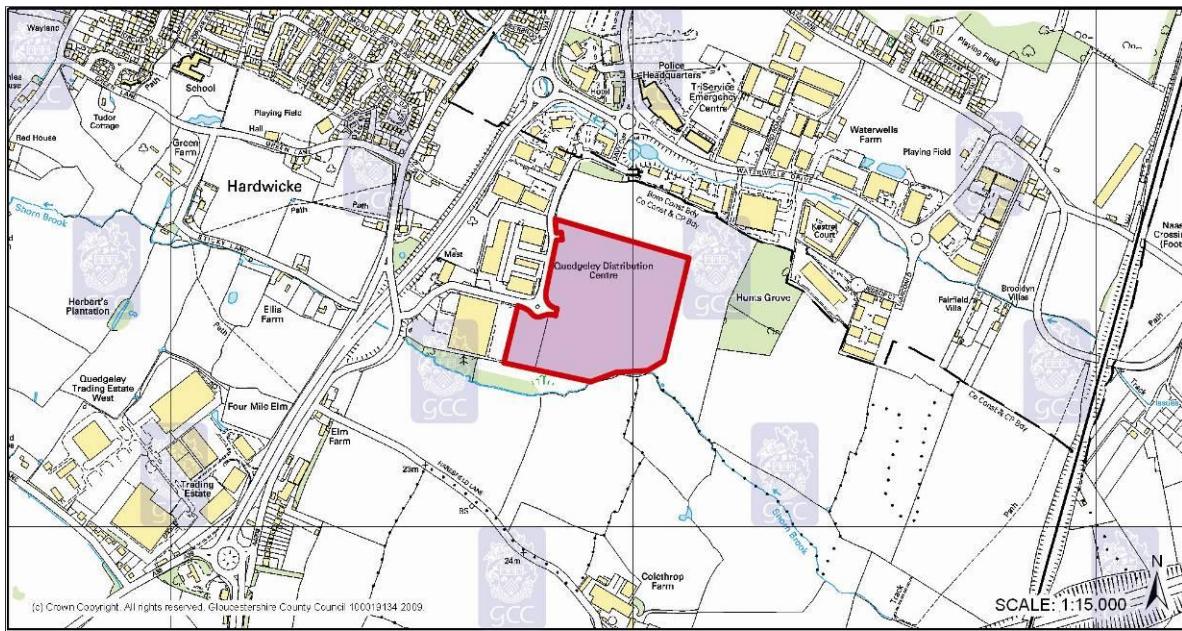
Zone C Site 2: Areas A B C Wingmoor Farm West, Tewkesbury Borough



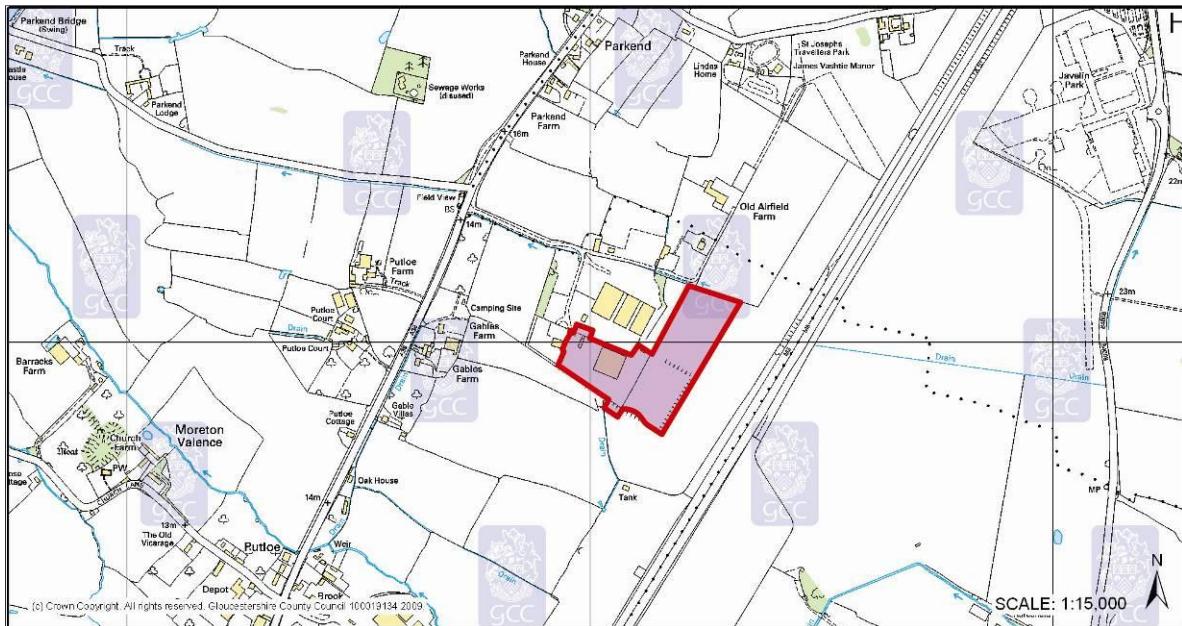
Zone C Site 3: Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury Borough



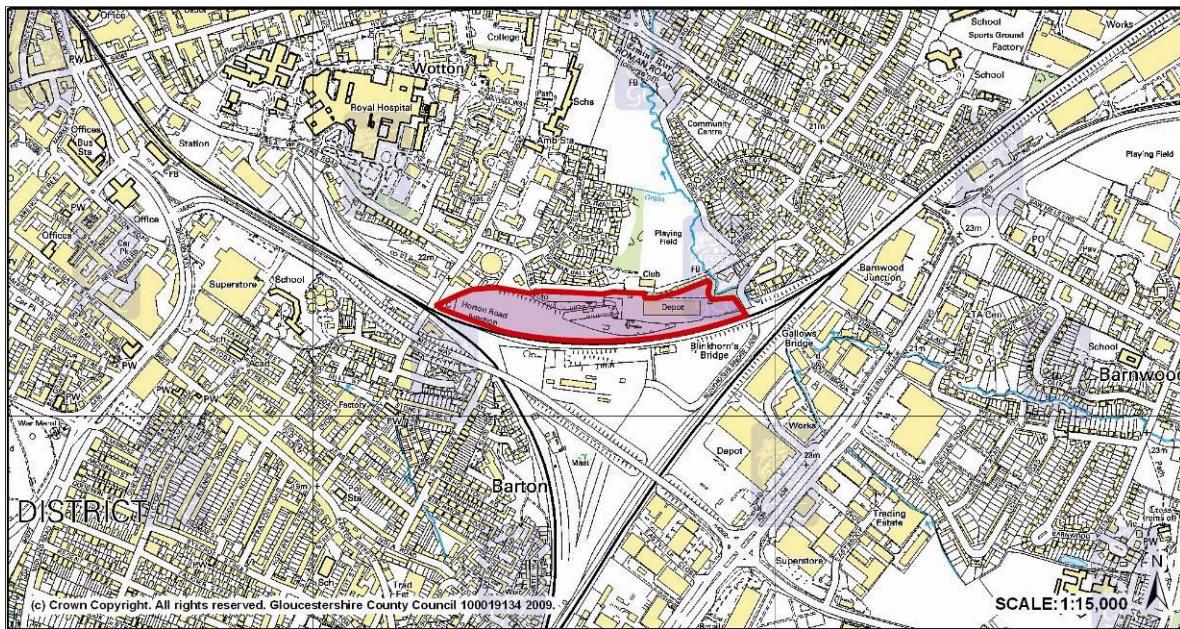
Zone C Site 4: Javelin Park, Haresfield, Stroud District



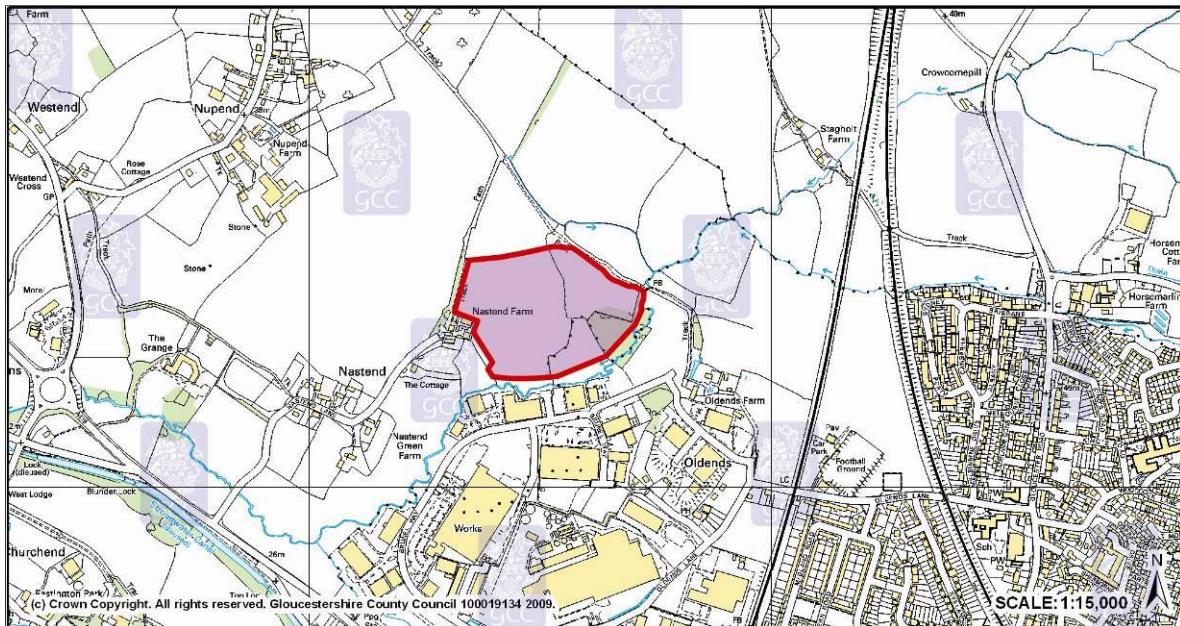
Zone C Site 5: Land adjacent to Quadrant Business Centre, Quedgeley, Stroud District



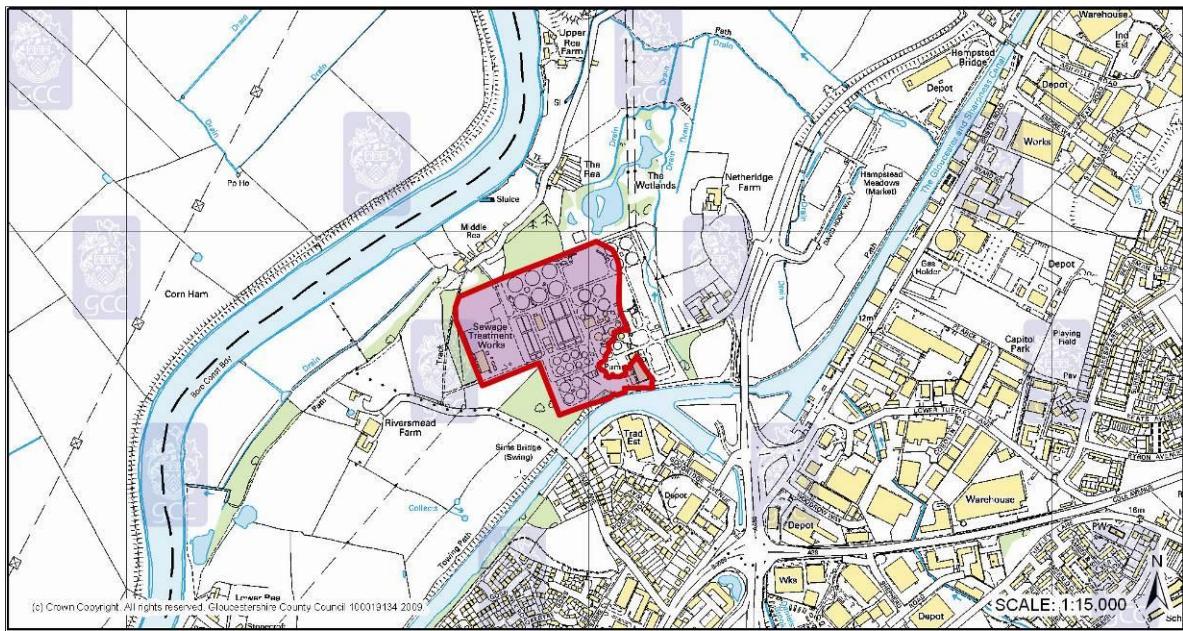
Zone C Site 6: Land at Moreton Valence, Stroud District



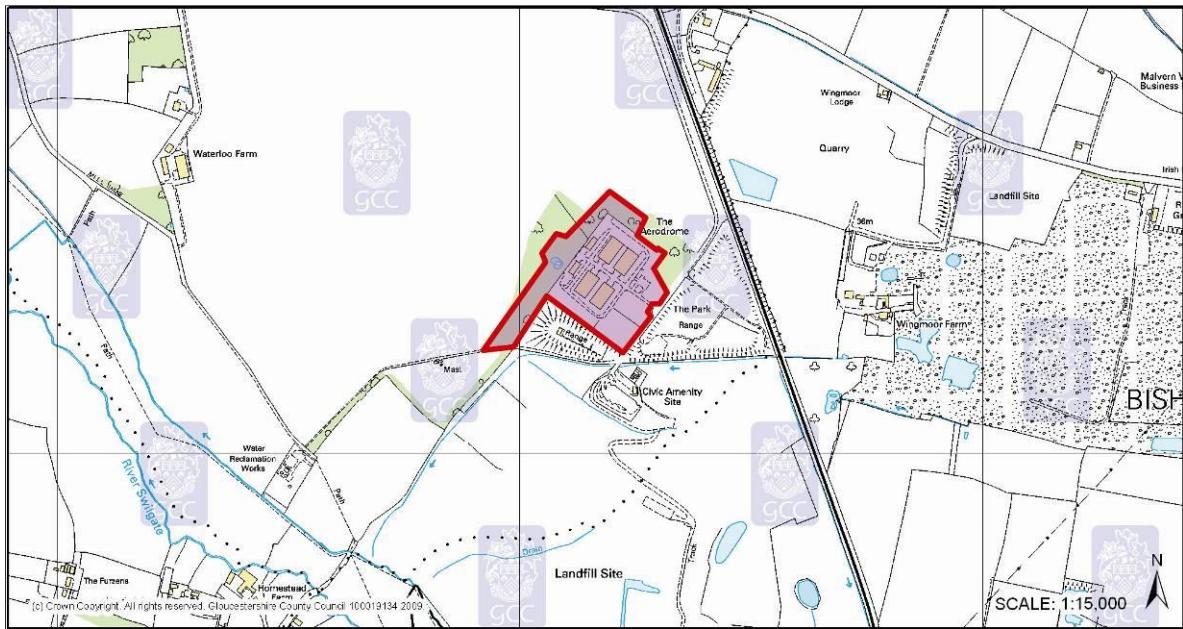
Zone C Site 7: Land north of Railway Triangle, Gloucester



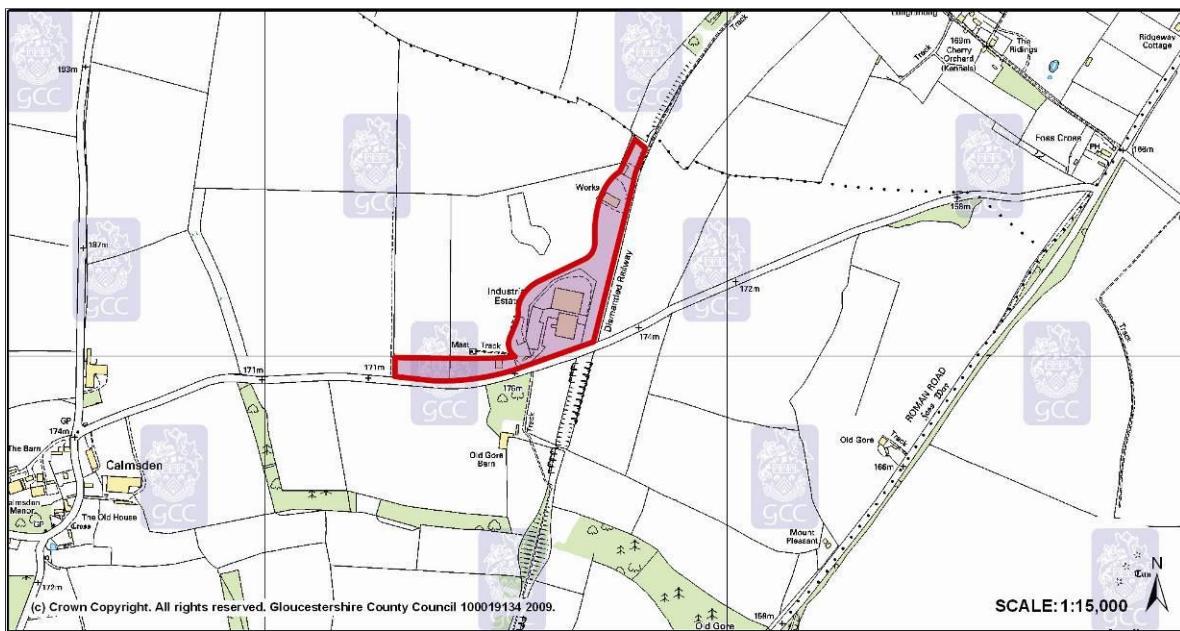
Zone C Site 8: Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud District



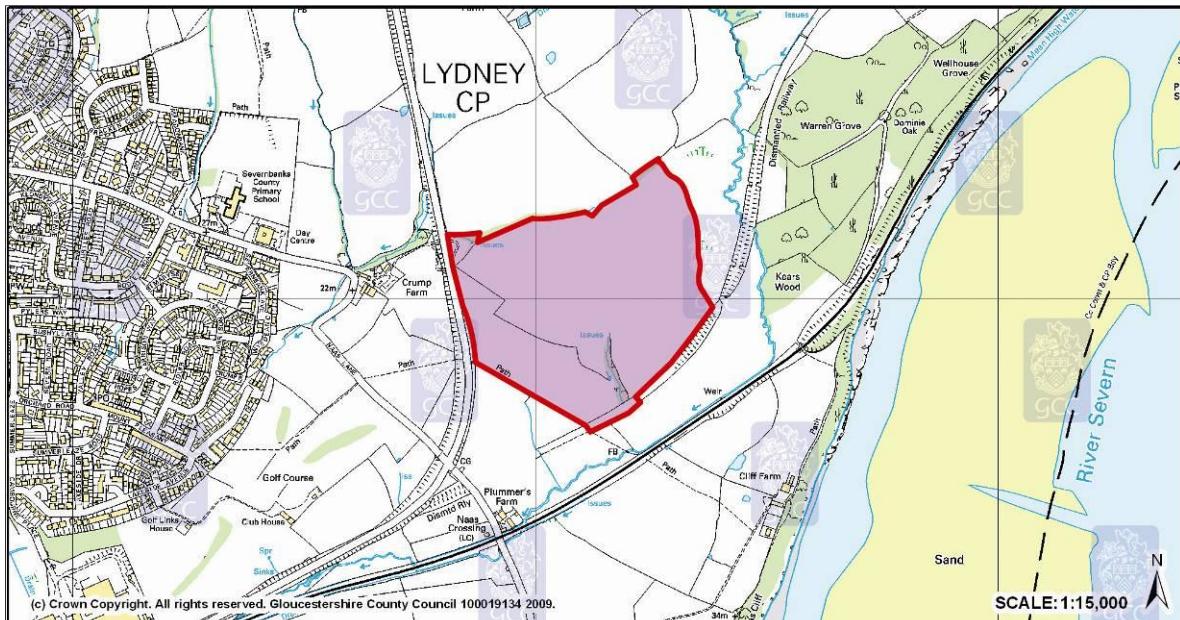
Zone C Site 9: Netheridge Sewage Treatment Works, Gloucester



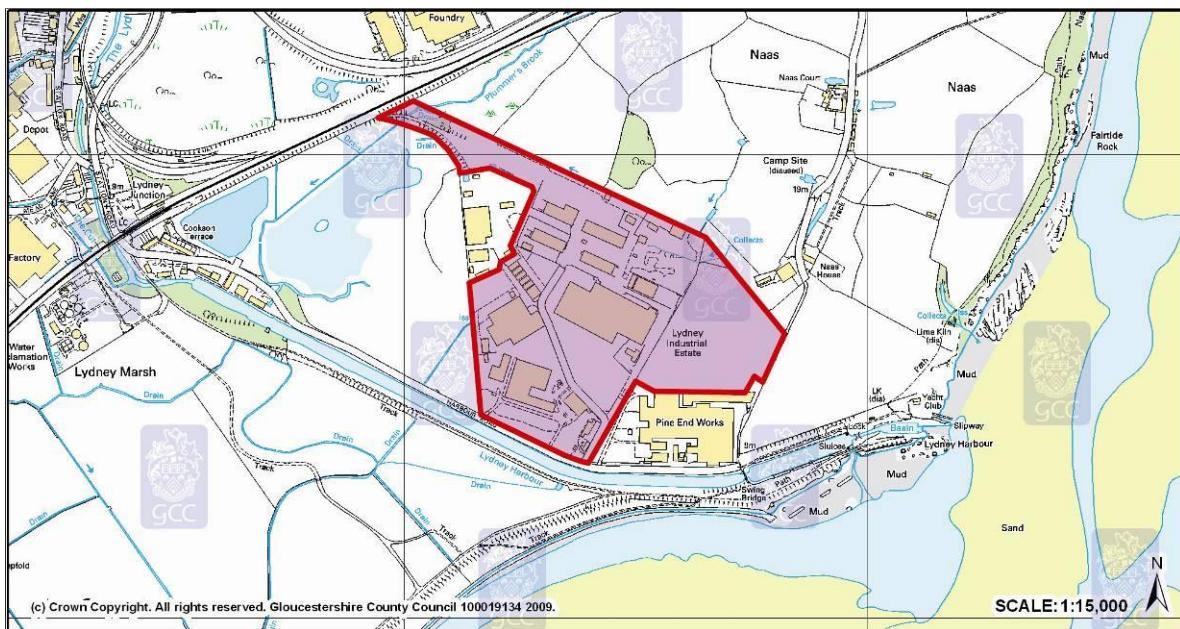
Zone C Site 10: The Park, Wingmoor Farm West, Tewkesbury Borough



Outside Zone C Site 1a: Foss Cross Industrial Estate, Calmsden, Cotswold District

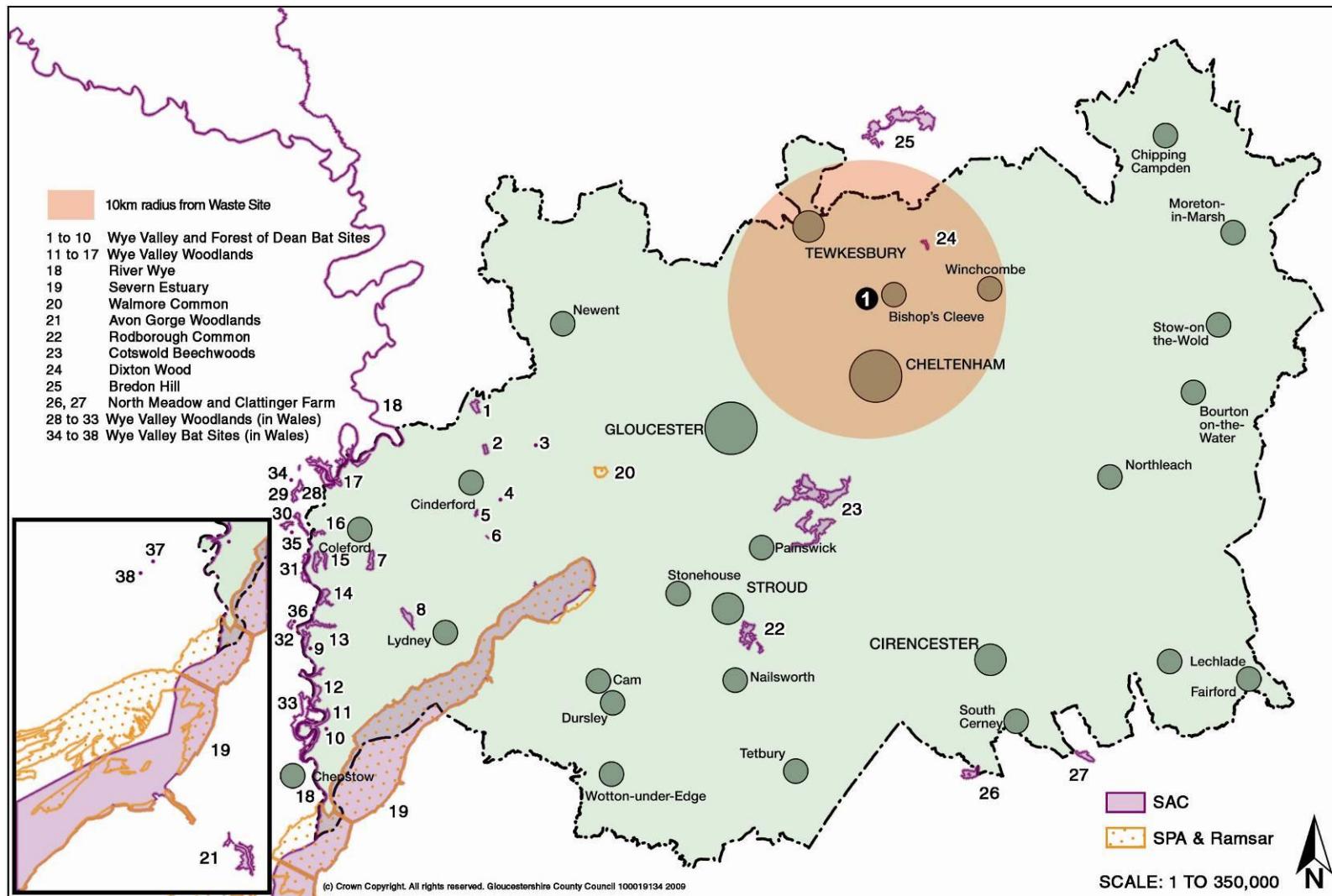


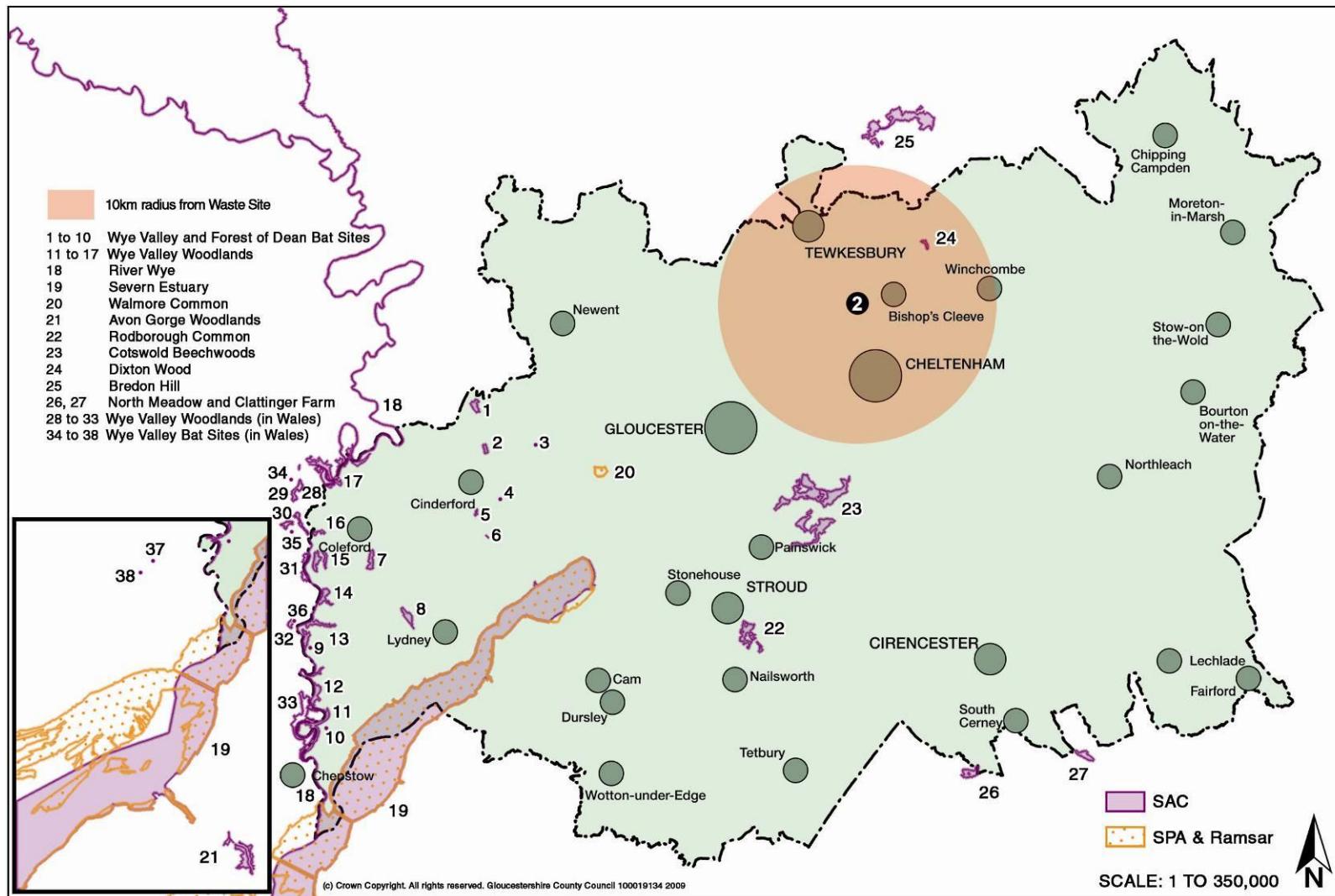
Outside Zone C Site 2a: Hurst Farm, Lydney, Forest of Dean District

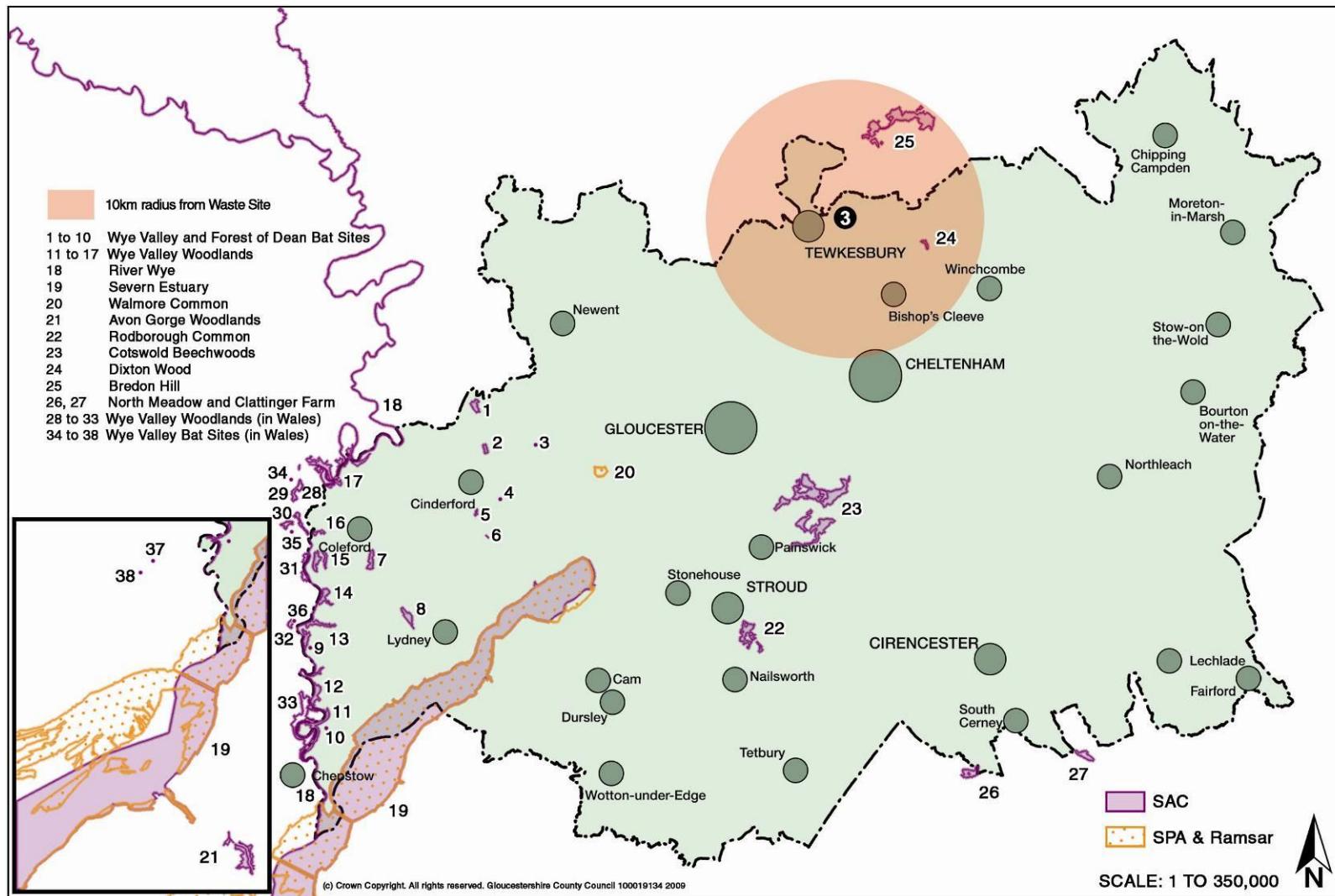


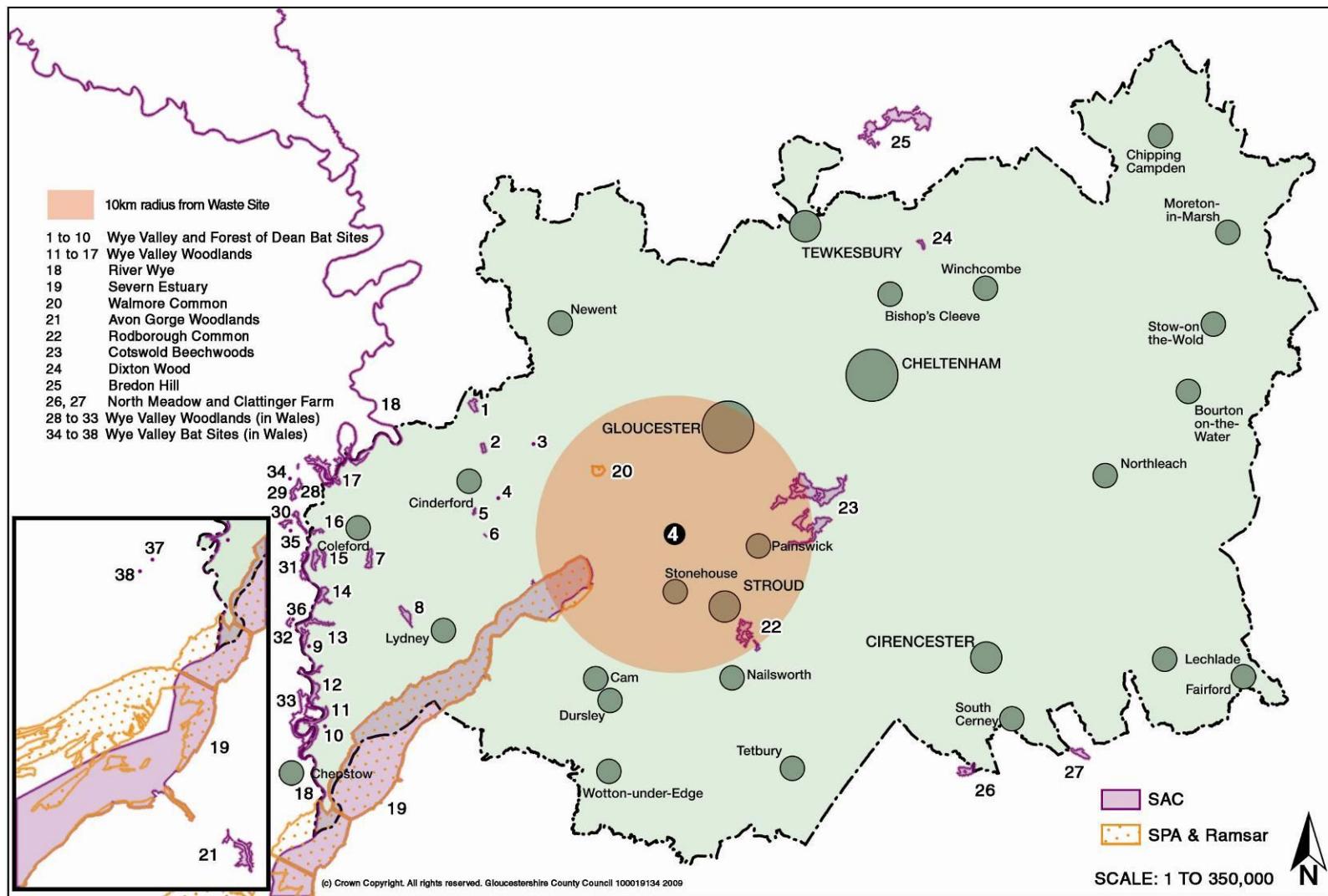
Outside Zone C Site 3a: Land at Lydney Industrial Estate, Lydney, Forest of Dean District

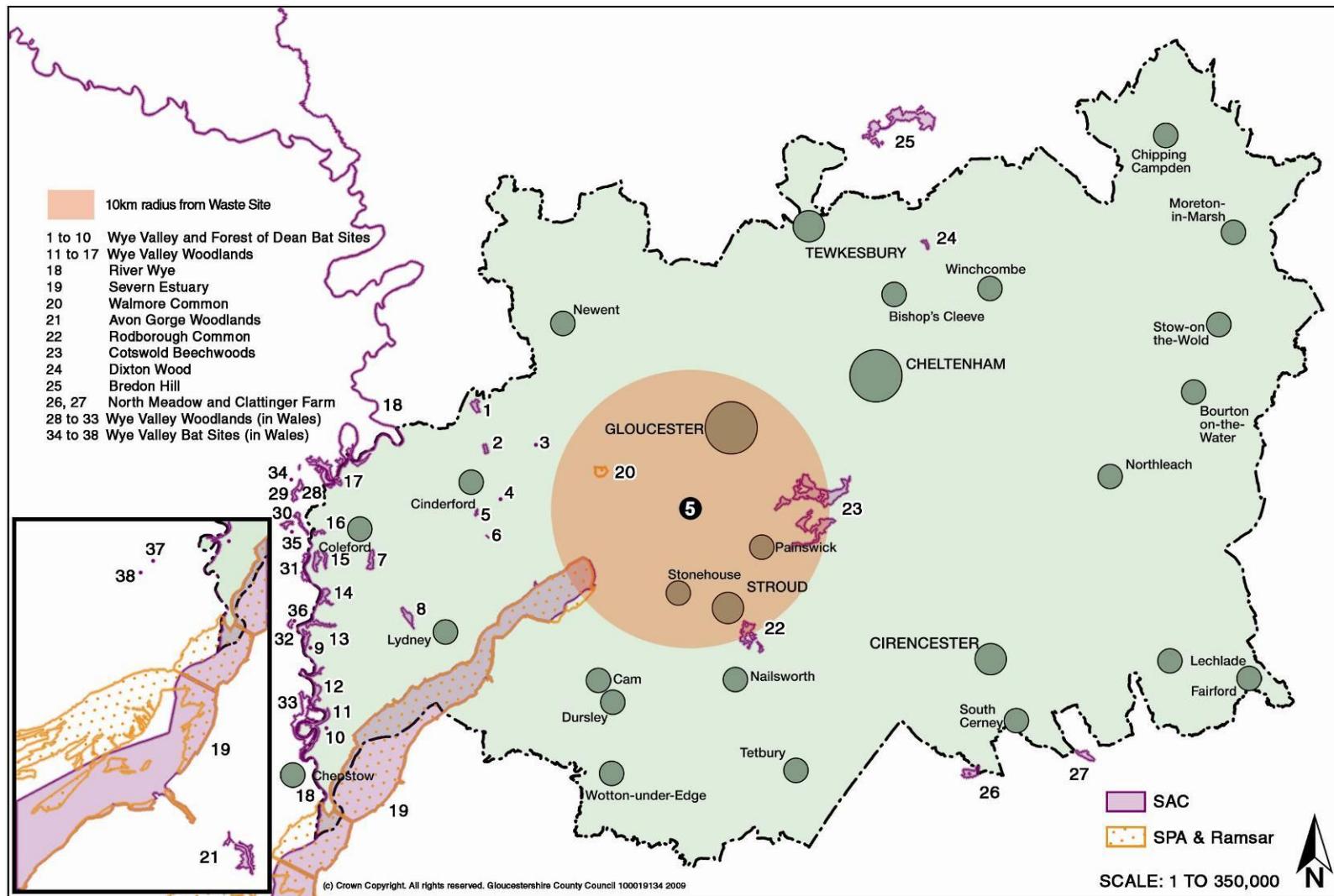
Appendix B: All European sites in and close to Gloucestershire and those within a 10 km radius of proposed 'Zone C' waste sites

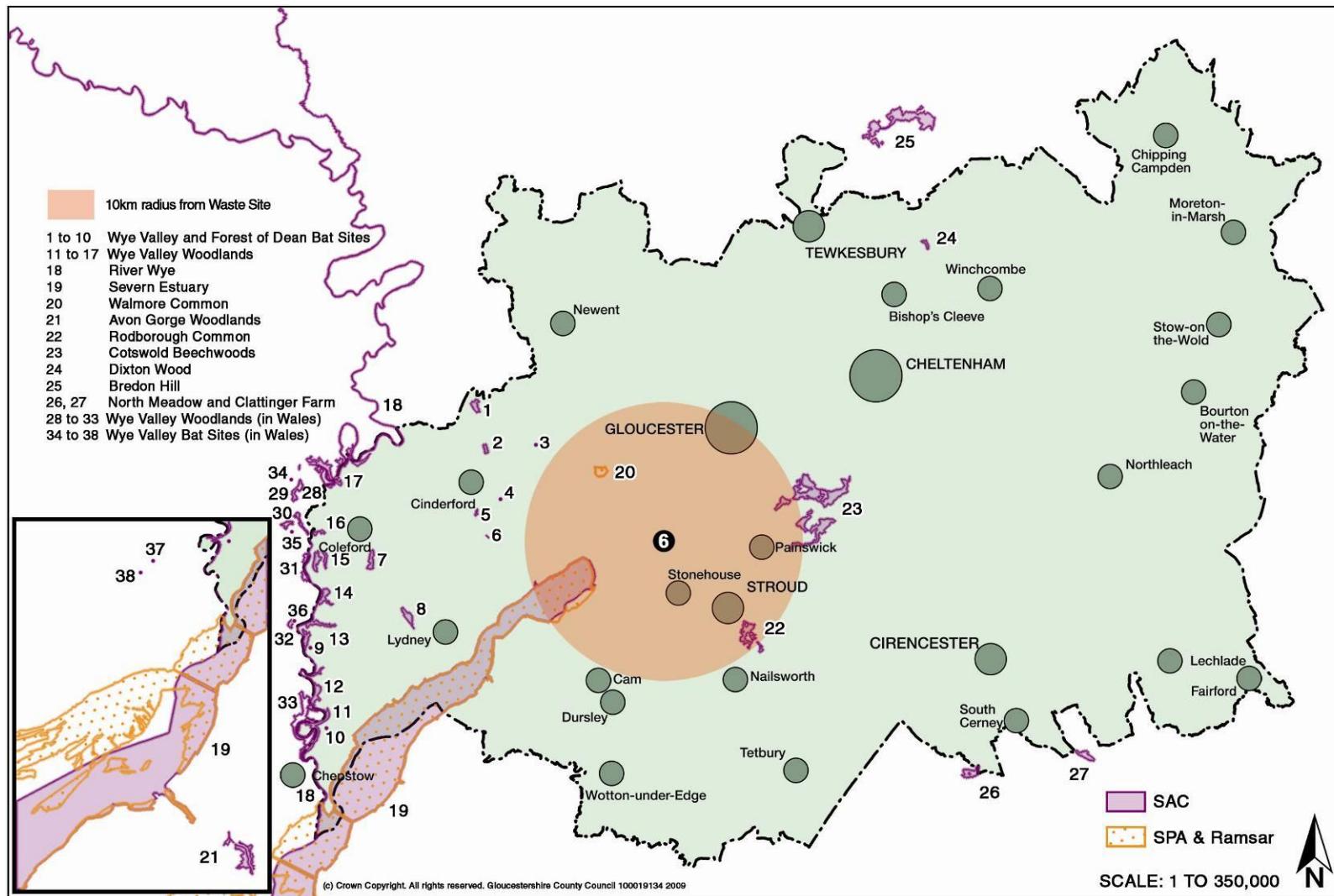


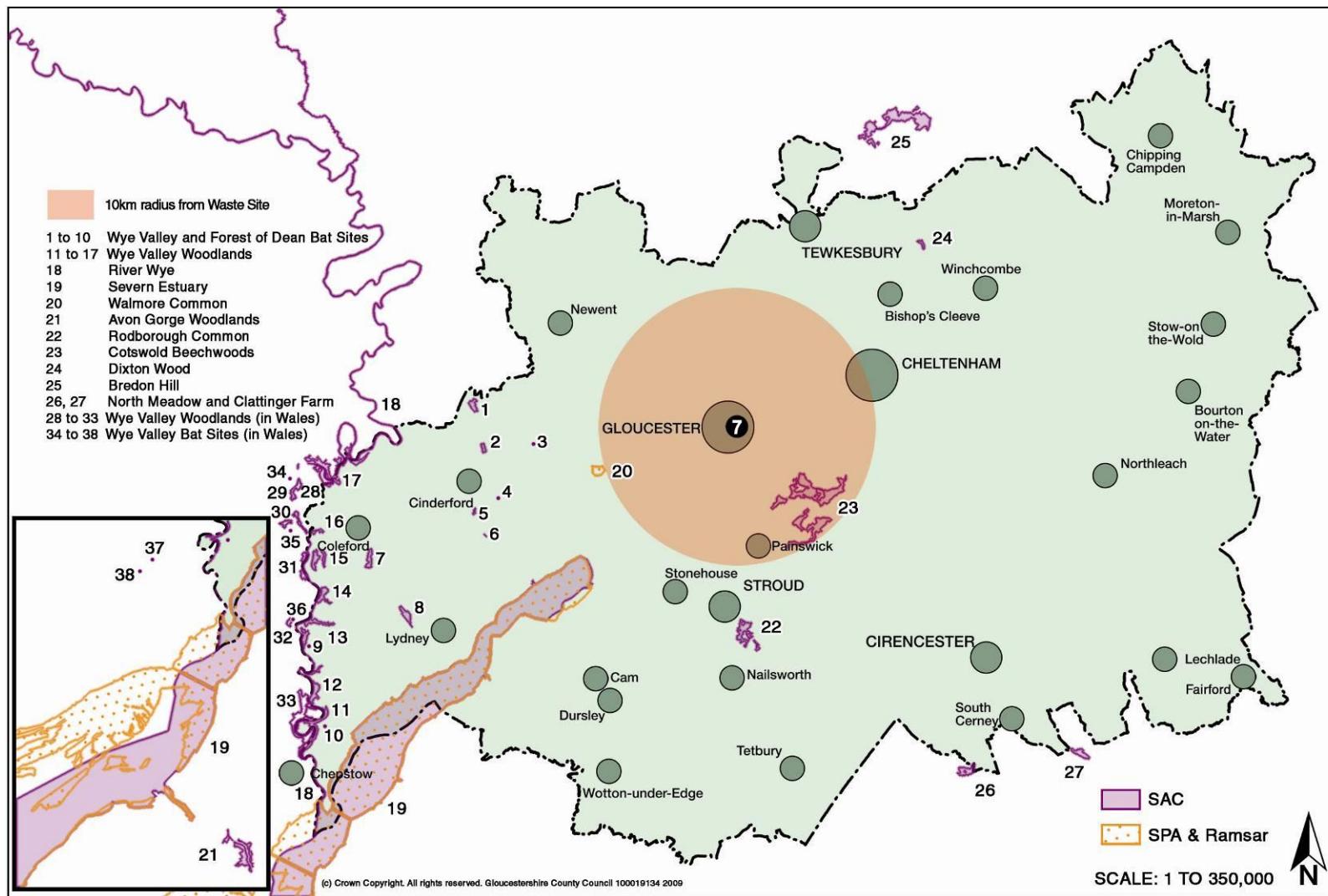


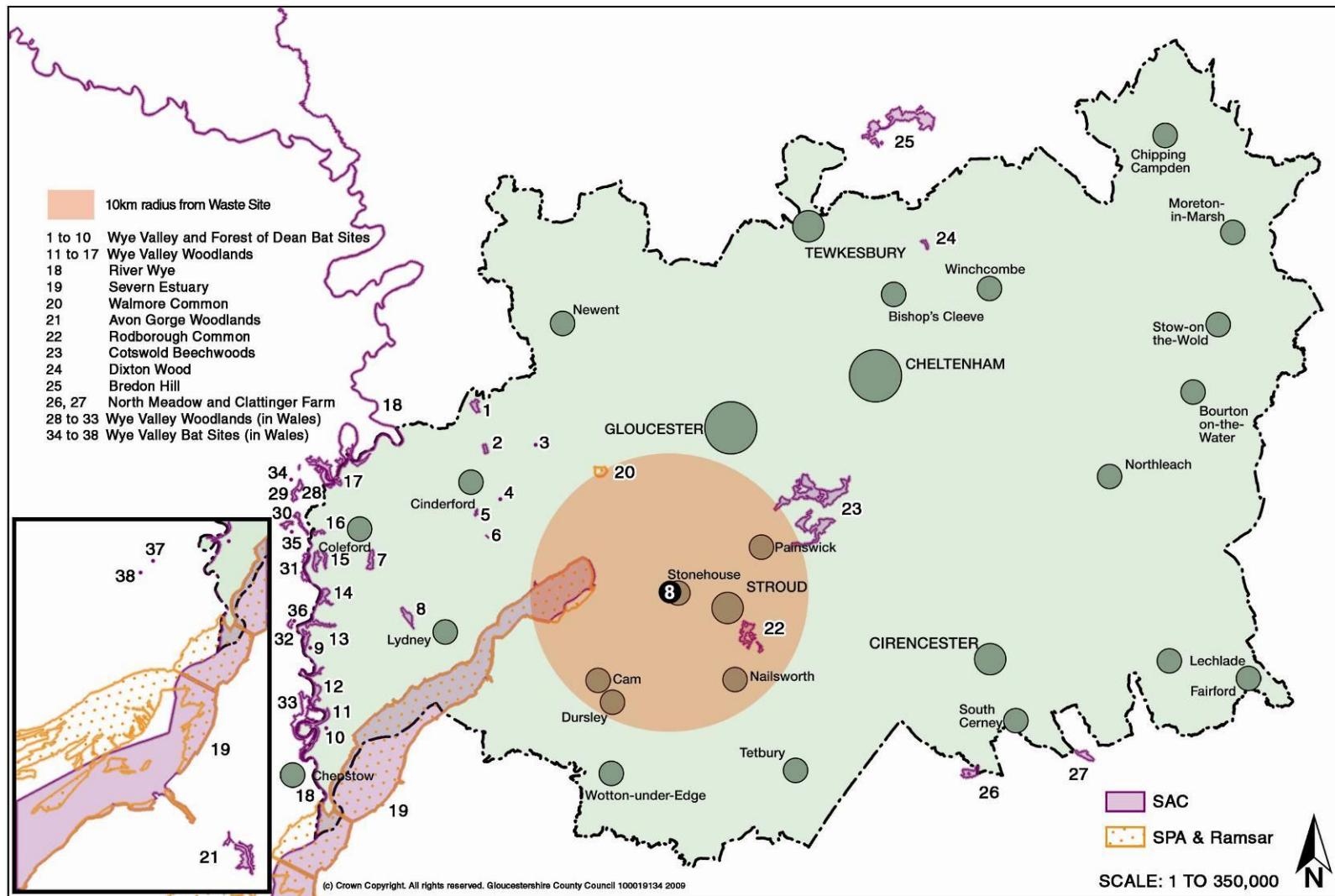


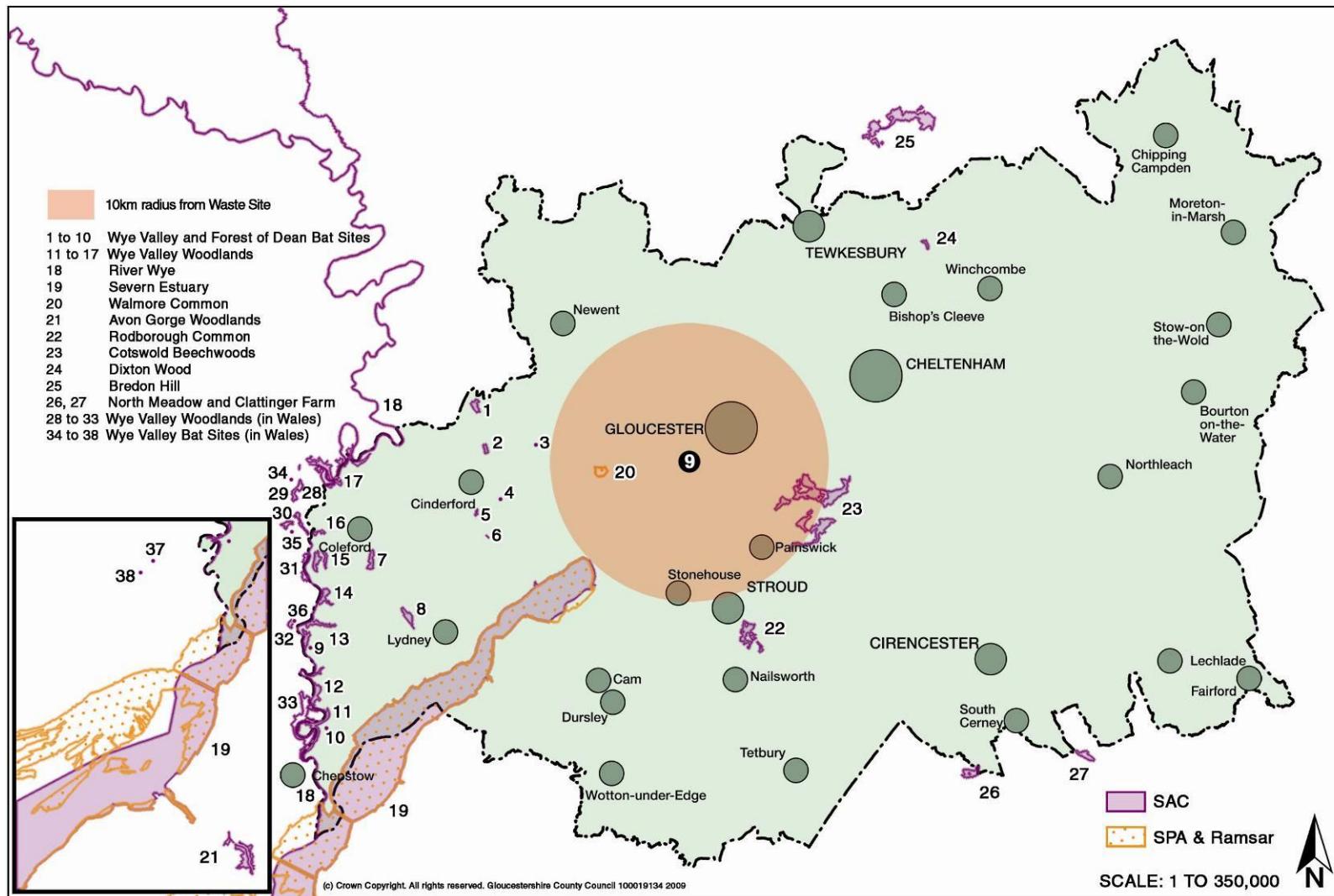


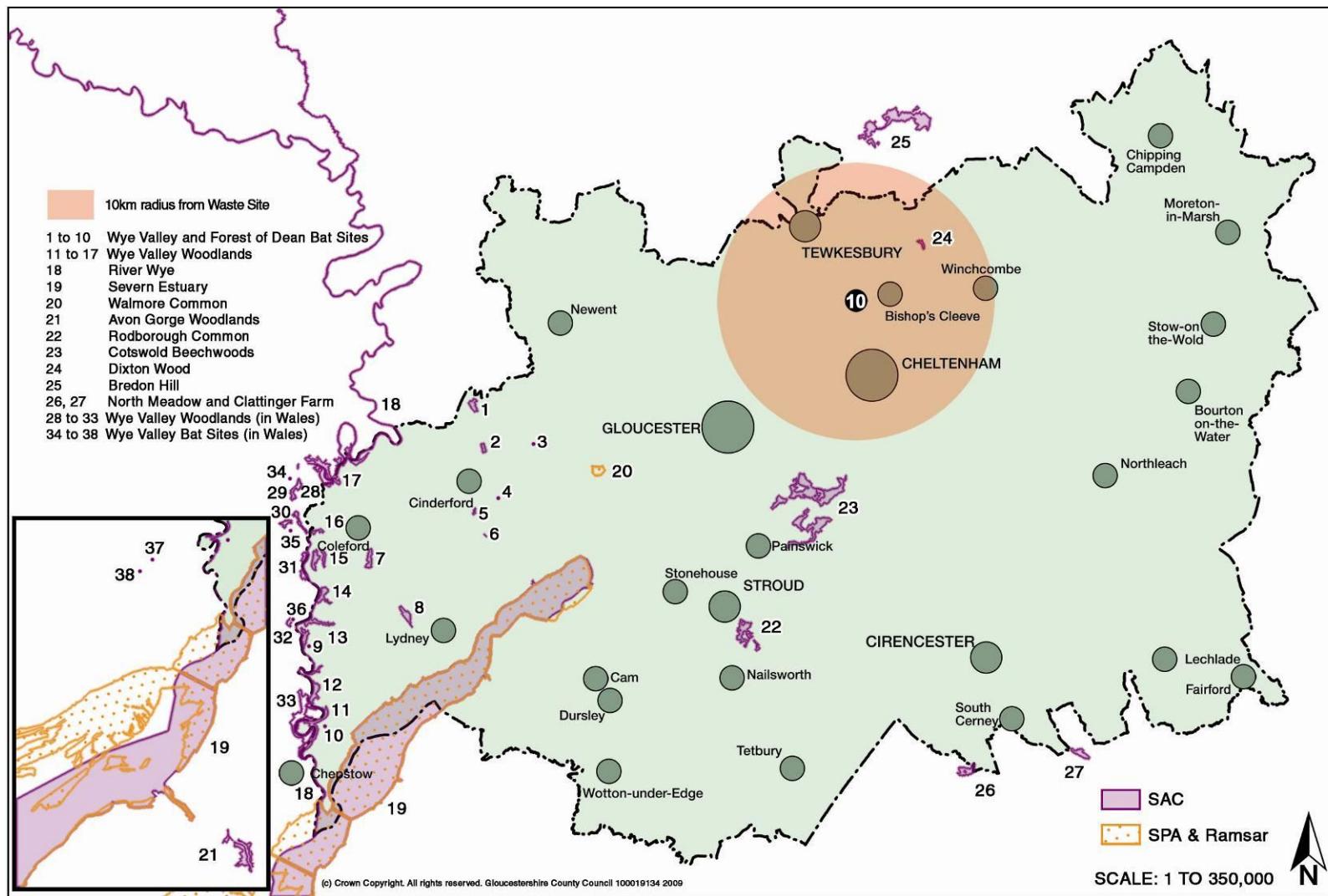




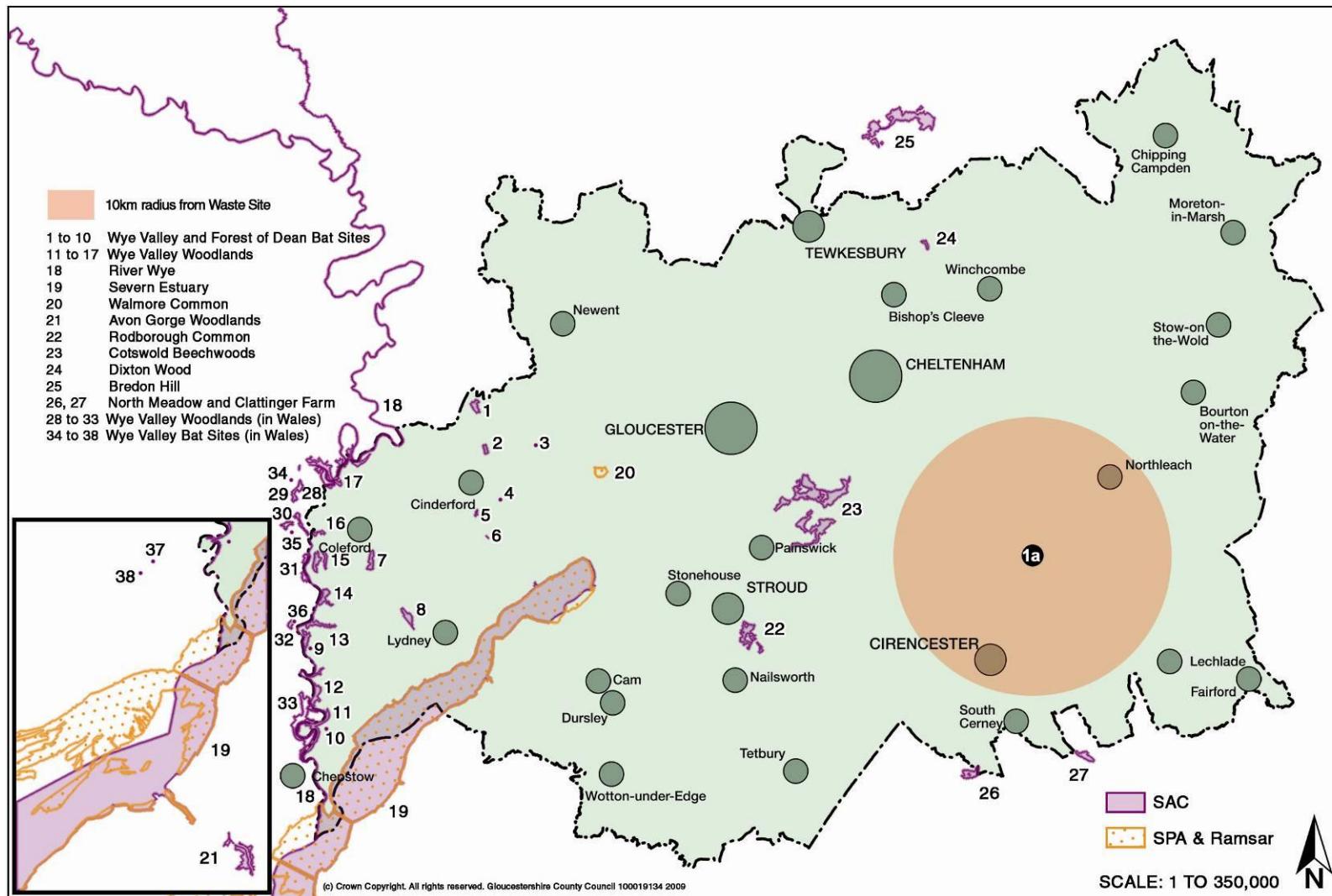


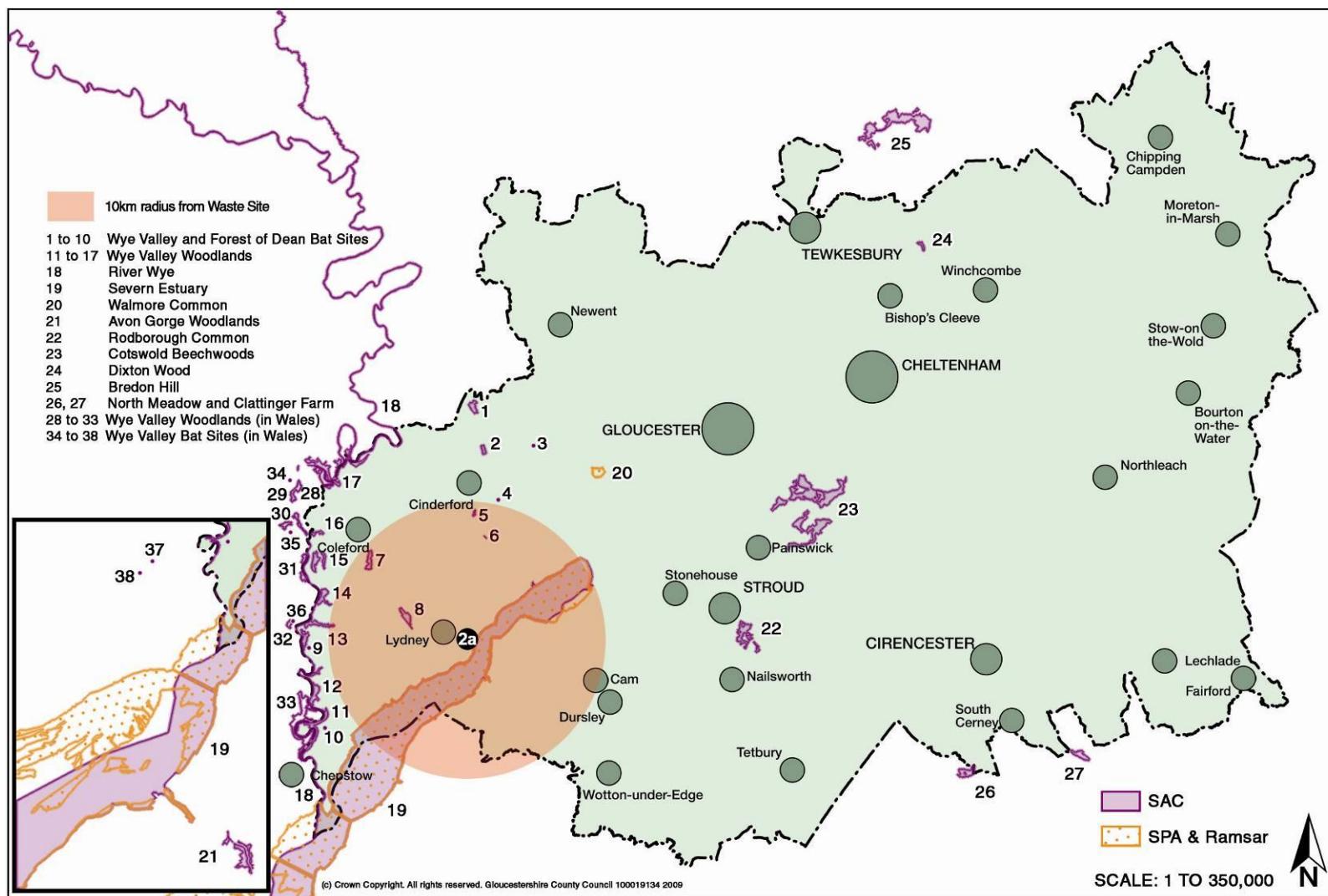


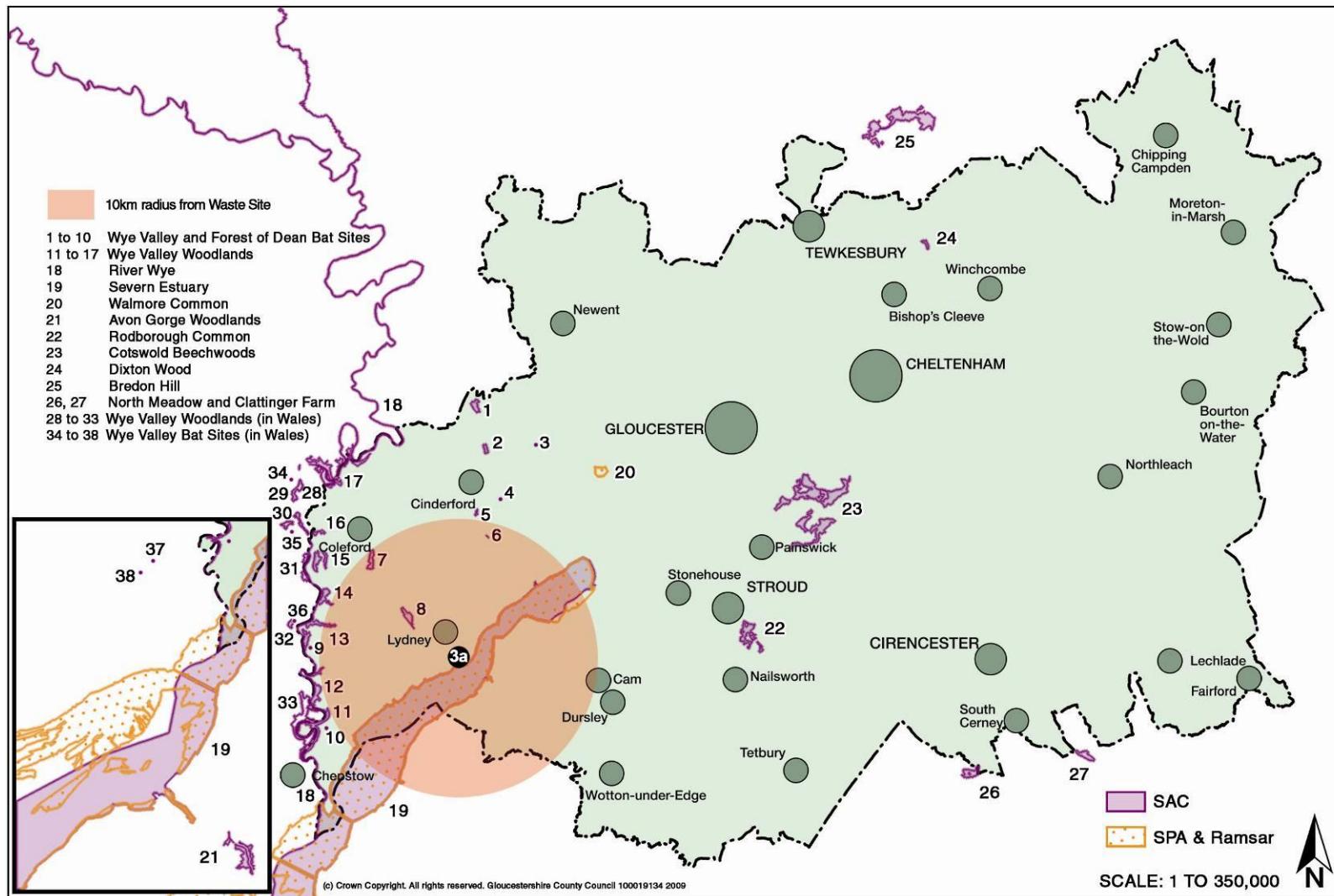




Appendix C: All European sites in and close to Gloucestershire and those within a 10 km radius of proposed 'Outside Zone C' waste sites







recycle for Gloucestershire



**Minerals & Waste Planning Policy
Environment Directorate
Gloucestershire County Council
Shire Hall
Gloucester
GL1 2TH**

www.goucestershire.gov.uk

October 2009