

## INTRODUCTION

5.1 This chapter deals with the need for Grundon's proposals. The immediate need for this application arises from the conditions attached to existing planning permissions for Wingmoor that require minerals and waste operations to cease by 12th May 2009. The landfill and mineral extraction operations are currently incomplete, as is the approved restoration scheme. The chapter therefore first examines how a duration condition came to be imposed on the consents for operations at Wingmoor Farm, and the implications of that condition. It goes on to describe the need for the currently permitted operations to continue and for a new consent to be issued. Need in the latter context relates to a variety of considerations including national, regional and local policies, as well as practical and commercial considerations.

5.2 The key issues are presented below as an executive summary to the need case for these development proposals which follows in the remainder of the Chapter

## THE NEED FOR THE PROPOSALS: EXECUTIVE SUMMARY

### Conditions on Existing Consents

5.3 As outlined below in paragraphs 5.28 – 5.64, the need for these development proposals is significantly dictated by the manner in which planning consent has historically been granted at the application site. In particular, it is considered that the conjunction of duration conditions, and conditions that require development at Wingmoor Farm to be carried out wholly in accordance with the submitted details and plans, leads to a dichotomy. The current situation is that the permitted operations are required to cease by a date insufficiently distant to enable compliance with the requirement that the development should be carried out as consented (i.e. in accordance with the restoration scheme).

5.4 Each time since 1989 that the County Council has approved additional development applications at Wingmoor Farm (and, from 1996, also at Wingmoor Quarry) it has conditioned the consents to require completion of site restoration by 12th May 2009. The reason given on the planning certificates for the imposition of the duration condition was compliance with Section 44 of the 1990 Act. However, the 1996 permission was not for mineral extraction, but for waste development, for which statute does not require a time limit to be imposed. There is no other indication of why

the condition was imposed, or why the duration period was the same as that selected in 1989 for a smaller scale of development.

5.5 The life expectancy of mineral workings and their restoration largely reflects market conditions and, over time, it has proved impossible to complete the mineral and landfill operations that have been permitted within the period specified by the planning consent. For example, when the 1996 restoration scheme was submitted and approved, major shifts in national and European waste policy and practice were already underway. These sought to give effect to the expectation that significantly reduced volumes of waste would, in short time, be sent to landfill.

5.6 When the scale of permitted mineral and waste development was subsequently augmented by further consents, without a corresponding extension of the duration consent, the possibility of not completing the development became a probability. Even had market conditions remained constant, it was clearly unlikely that the larger development could have been completed in the time previously considered by the planning authority to be sufficient for the smaller scheme.

### Green Belt

5.7 As explained in paragraphs 5.65 – 5.106, Wingmoor Farm is located in the Cheltenham and Bishop's Cleeve Green Belt. Since its designation, a further 16 planning consents have been granted at the application site for a range of mineral and waste related activities.

5.8 Paragraph 3.1 of PPG2 explains a general presumption against inappropriate development in the Green Belt, indicating that such development should not be approved except in very special circumstances. Paragraph 3.11 states: *"Minerals can only be worked where they are found. Mineral extraction need not be inappropriate development: it need not conflict with the purposes of including land in Green Belts, provided that high environmental standards are maintained and that the site is well restored."* Paragraph 3.11 of PPG2 states that planning authorities should impose planning conditions to secure this whilst paragraph 3.15 goes on to identify the need to avoid injury to the visual amenity of the Green Belt.

5.9 The original Wingmoor operations were permitted to exploit an identified mineral resource. Considering the continual consenting of development at the application site by GCC, the later inclusion of the site within the wider Green Belt would appear to have been

considered not to conflict with the purpose of the Green Belt, subject to the maintenance of high environmental standards and ensuring that the site is well restored.

5.10 The proposals were and still are designed to ensure that the operation of the site and its progressive and final restoration are both undertaken to the highest possible standards of environmental control. As detailed in this ES, these proposals will provide for an operational and restored site that will not introduce any significant adverse environmental impacts upon the receiving environment, including the Green Belt.

5.11 They will also provide for an after use that is not only of a suitable standard but that complements the surrounding Green Belt designation through the provision of public access, agricultural land use and nature conservation. The restored site will also specifically remove any potential harm arising from this development or an unrestored site upon the visual amenity of the surrounding Green Belt land.

### Non-Hazardous Waste Management

5.12 The proposals will also play a critical role in meeting Gloucestershire's forecast and apportioned non-hazardous waste disposal requirements over the period to 2026 and beyond to 2030, the proposed end of the life of the site. The analysis in paragraphs 5.107 – 5.189 explains that a combined non-hazardous landfill capacity of approximately 6,669,000 cubic metres (m<sup>3</sup>) will remain in Gloucestershire as at the end of 2008/2009. The analysis also identifies that between 6,710,160 and 7,197,000 m<sup>3</sup> of non-hazardous voidspace between 2009/2010 and 2025/2026 will be required in Gloucestershire. This equates to a shortfall in capacity of between 41,160 m<sup>3</sup> based upon the forecasts in the draft RSS and up to 528,000 m<sup>3</sup> based on interpretations of the draft WCS.

5.13 The application site can therefore only make provision for a proportion of the non-hazardous wastes requiring disposal in the County. It is therefore expected that the capacity provided by these proposals will not be the only response made in Gloucestershire to the need for the safe disposal of non-hazardous wastes, both over the period to 2026, and through to the end of the site's life at 2030. The site's capacity will, however, be an essential part of the total disposal capacity required, representing at 2008/2009 over 40% of the remaining non-hazardous voidspace available in the County.

5.14 National policy seeks to divert waste from landfill and PPG10 recognises the need to make adequate

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provision for waste management capacity, including the provision of facilities for recycling and waste recovery (paragraph 3). The proposed MRF would in principle contribute towards these objectives by assisting to move waste up the waste hierarchy.

5.15 In terms of making a contribution towards the need to divert waste from landfill, up to 490,000 tonnes per year of material is to be recycled in Gloucestershire by 2020. An estimate of the minimum shortfall for non hazardous waste diversion capacity in Gloucestershire as at 2007 based on RSS's capacity requirements for 2010/11 suggests that even by 2007, Gloucestershire is facing a significant shortfall of 110,160 tonnes per annum (tpa) of diversion capacity for non hazardous waste that must be made good by 2010/2011 justifying in principle the need for further diversion capacity to be bought forward.

5.16 These figures assume the MRF at Wingmoor as previously consented is fully operational by 2010/11. If the proposed MRF were not granted consent, this would increase the already significant gap in the recovery capacity of Gloucestershire to meet diversion targets to 160,160 tpa. Accordingly, there is therefore an urgent need to maintain existing permitted waste management capacity as well as to bring forward additional capacity.

## Hazardous Waste Disposal

5.17 Hazardous waste management in the south west region is dominated by voidspace at Wingmoor Farm IWMF as explained in paragraphs 5.190 – 5.252 below. The identified maximum voidspace for the region as a whole at March 2009 is estimated at 1,562,000 m<sup>3</sup>, of which 1,242,000 m<sup>3</sup> is at Wingmoor Farm (based on surveyed void at 1st August 2008 of 1,287,000 m<sup>3</sup>).

5.18 Between 2009/2010 and 2026/2027, a period of 18 years covering the draft RSS period and the full operational period of the application site for hazardous waste disposal, the disposal of between 105,000 tpa and 120,000 tpa of south west produced residual hazardous wastes will require between 1,260,000 m<sup>3</sup> and 1,440,000 m<sup>3</sup> of voidspace. In turn this would leave a 'surplus' in the region of between 122,000 m<sup>3</sup> – 302,000 m<sup>3</sup> at 2026/2027.

5.19 However, and as shown by the detailed data and analysis below, the provision of capacity for the needs of the south west region will also need to make provision for inter regional movements of hazardous waste. Therefore, where a 'surplus' in capacity within the region is identified, it is the case that this is a minimum capacity requirement and, over time, it is expected that the existing capacity in the region will not be sufficient.

5.20 This inter-regional relationship shows that whilst the application site continues to play an important role in managing wastes from the south west region, it also has an important role in managing wastes from surrounding regions, including the neighbouring south east and London, Wales and from the West Midlands immediately to the north. In particular, assuming no change in the level of input (i.e. no growth or reduction in hazardous waste inputs), ongoing imports of hazardous waste into the south west for disposal will require the provision of 1,602,000 m<sup>3</sup> of voidspace alone over the 18 year period between 2008/2009 – 2026/2027. This is before making full provision is made for the disposal of the south west region's residual hazardous wastes.

5.21 As with the analysis for the draft RSS requirements, it is considered to be clear that the ongoing requirement to serve inter regional needs is a minimum that will be supplemented by the growing needs of the south west region. Therefore, where an inter regional 'shortfall' in capacity is identified, it is the case that this is a minimum shortfall, indicating that over time it is expected that the existing capacity in the region will not be sufficient.

5.22 Notwithstanding the above analyses, the continued rate of disposal of hazardous wastes at the application site, based upon existing contracts, historic trends and market availability of waste, has been identified as being up to 62,764 tonnes per annum. This will require 68,971 m<sup>3</sup> of voidspace each year, which will consume the remaining hazardous voidspace on site of 1,242,000 m<sup>3</sup> at 31st March 2009 within 18 years or by 31st March 2027.

5.23 Consequently, the application site will be able to make a significant contribution to the identified hazardous waste disposal needs of the south west region, and surrounding regions in accordance with regional policy and guidance. However, it is not expected that the application site, or the remaining capacity in the south west region will be able to meet all of those needs, as their capacities will be exhausted through identified inputs.

## Mineral Extraction

5.24 In respect of the need for minerals, paragraphs 5.253 – 5.297 explain that, whilst the sand and gravel extraction element of the application site is reaching its final stage, it would be inconsistent with Government, Regional and Local Planning Guidance to allow that remaining reserve to be sterilised and lost. Currently, sand and gravel from the application site is supplied to a local market. The continued provision of this material, and

completion of sand and gravel extraction operations on site would make a small but nonetheless valuable contribution towards the overall annual sand and gravel supply required in Gloucestershire, particularly whilst future preferred areas are identified and consented.

5.25 Furthermore, the site has a valuable and recognisable role to play in the provision of engineering clay for export to the local and regional market. Collectively, demand for engineering clay at Wingmoor Farm is forecast to consume all of the 432,000 m<sup>3</sup> of clay to be produced for export, as explained in Chapter 3 of this ES. This mineral is proposed to be supplied at an average annual rate of 24,000 m<sup>3</sup> per annum over the proposed 18 year operational period for clay extraction. Extraction of clay will also be required for on site engineering purposes as part of the environmentally acceptable design and restoration of the remaining landfill voidspace. This will consume approximately 918,000 m<sup>3</sup> of additional on site derived clay materials.

5.26 It is considered that the provision of this essential mineral is fully in accordance with Government and Local Planning Policy. This Environmental Statement has demonstrated that impacts from the extraction, use on-site and export off-site of clay reserves can be accommodated by the receiving environment and the local highway network without significant adverse impacts.

5.27 This chapter goes on to assess the individual elements of the need for the proposals in full detail below.

## THE IMPOSITION OF A DURATION CONDITION ON THE WINGMOOR CONSENTS

5.28 The first Wingmoor planning permission to include a duration condition was for "extraction of sand and gravel with restoration to agriculture by controlled waste tipping" on land at Wingmoor Farm (reference 88T/8446/01/02) granted by Gloucestershire County Council on 12 May 1989. The condition sets a 20 year period expiring on 12th May 2009.

5.29 The reason given for the imposition of a duration condition was "to comply with the requirements of Section 44A(3) of the Town and Country Planning Act 1971". This is a reference to the subsection of the 1971 Act (now superseded) that permitted planning authorities to vary the statutory 'default' duration period for mineral consents of 60 years. Neither this reason nor County Council records of the time explains why 20 years was set as the appropriate period in this case.

5.30 A duration condition with the same end date has been applied to all subsequent consents, notwithstanding the fact that the permitted operations have thereby grown in scale and market demands have changed. Successive application of this policy has given rise to the situation in which consent for the recently constructed MRF requires it to be demolished before it has been brought into use.

5.31 The current requirement for planning permissions for mineral working to be subject to a condition limiting their duration is found in Schedule 5 to the Town and Country Planning Act 1990. Part 1(1) of the Schedule states: "Every planning permission for development (a) consisting of the winning or working of minerals; or (b) involving the deposition of mineral waste, shall be subject to a condition as to the duration of the development."

5.32 Part 1(2) of the Schedule requires mineral developments to "cease not later than the expiration of 60 years beginning with the date of the permission". However, part 1(3) allows planning authorities to "specify a longer or shorter period". The 1990 Act also places minerals planning authorities under a duty periodically to review mineral sites in their area, a duty further defined in the Environment Act 1995.

5.33 Government advice on the application of duration periods to mineral permissions is that they "should be appropriate to the particular circumstances of the case and should take account of the legitimate needs of the operator as well as planning considerations." (MPG2, paragraph C4).

5.34 At Wingmoor, conjunction of duration conditions and conditions that require development to be carried out wholly in accordance with the submitted details and plans leads to a dichotomy. Permitted operations are required to cease by a date insufficiently distant to enable compliance with the requirement that the development should be carried out as consented.

5.35 The life expectancy of mineral workings and their restoration largely reflects market conditions. For example, extraction rates are influenced by the demand for minerals both generally and in the locality, and the rate of filling reflects the availability of suitable fill material. These elements operate within the broader context of the economy as a whole and the regulatory system for permitting waste management operations. At Wingmoor it has proved impossible to complete the mineral and landfill operations that have been permitted within the period specified by the planning consent.

5.36 When the scale of mineral and waste development permitted was subsequently augmented by further consents without a corresponding extension of the duration condition, the possibility became a probability. Even had market conditions remained constant, it was clearly unlikely that a larger development could have been completed in the time previously considered by the planning authority to be sufficient for a smaller scheme.

5.37 The probable scenario that restoration would not be completed by 12th May 2009 became a certainty when changes in the external context were taken into account. The early 1990s saw the beginning of a fundamental and progressive shift in waste legislation, policy and practice towards waste prevention, reduction, re-use, recycling and recovery, with the aim of reducing dependence on landfill. A parallel encouragement of recycled aggregates has also sought to reduce reliance upon primary aggregates.

5.38 However, unavoidable wastes cannot all be re-used, recycled or recovered. Consequently, there is continued reliance on landfill. At the same time a tighter regime of permitting and regulation has led to a change in the classification of hazardous wastes and a significant reduction in the availability of active landfill, particularly landfill categorised as suitable for hazardous wastes. This means that the quantity of hazardous wastes for disposal must now be managed at fewer disposal sites.

5.39 As outlined above, each time the County Council has approved additional development applications at Wingmoor Farm (and, from 1996, also at Wingmoor Quarry) it has conditioned the consents to require completion by 12th May 2009.

5.40 The 1996 consent (reference 95/8446/1099/FUL) was a full planning application that sought to join together Wingmoor Quarry and Wingmoor Farm, which until then were separate commercial operations and planning units, in a single restoration scheme. When they applied for consent for the 1996 scheme, the applicants explained in a statement accompanying the application that approximately 1,275,000 m<sup>3</sup> of additional void would thereby be created, which they said was “most likely to be utilised by a combination of an increase in volume per annum and an extension of life (of the landfill)”.

5.41 When the 1996 restoration scheme was submitted and approved, major shifts in national and European waste policy and practice were already underway. These sought to give effect to the expectation that significantly reduced volumes of waste would, in short time, be sent to landfill. Policies were supported by

fiscal measures; for example 1996 saw the introduction of a landfill tax, which has since become an increasingly effective deterrent to landfilling recyclable material.

5.42 The context in which the 1996 decision was taken thus clearly suggested that it could take significantly longer than anticipated to complete the original restoration, let alone the larger scheme then being consented. Notwithstanding this context, consent was granted subject to the same duration condition, that is, the development had to cease by 12th May 2009.

5.43 The reason given on the planning certificate for the imposition of the duration condition was again compliance with Section 44 of the 1990 Act. However, the 1996 permission was not for mineral extraction, but for waste development, for which statute does not require a time limit to be imposed. There is no other indication of why the condition was imposed, or why the duration period was the same as that selected in 1989 for a smaller scale of development.

5.44 Subsequent consents issued for development associated with mineral working or waste management on the Wingmoor site have all been subject to conditions requiring cessation on or before 12th May 2009. The most recent significant planning consent is for a materials recovery facility (MRF), which is a substantial investment. Permission was granted on 5th April 2006, but the use is to cease before the 31st December 2008 and the buildings are to be removed and the site restored by the 9th May 2009. The principal buildings, hard standing and external infrastructure have been built, but stand empty.

## REVIEW OF MINERAL PERMISSIONS

5.45 Schedule 14 of the Environment Act 1995 provides for the periodic review by planning authorities of all mining sites, a definition that covers all types of mineral. For quarries such as Wingmoor, the first review date is 15 years after the date of the most recent mineral permission, which in Wingmoor’s case would be 2005. A review was mooted by the County Council in 2003, but has not been taken forward.

## EIA AND THE CONSIDERATION OF NEED

5.46 Note has been taken of the advice in MPG 2 “where a permission for mineral working becomes time expired and workable deposits remain”. It says: “application for (its) renewal should be considered in the normal way but it is to be expected that such an application would normally be granted

*unless there has been a material change of planning circumstances since the expiring permission was granted. Because of the long time scale of some mineral operations careful consideration should be given to the nature and long term relevance of the conditions to be attached.”* (MPG2, paragraph C4.)

5.47 At Wingmoor the need is to complete mineral extraction and restore the site in accordance with current planning permissions. The approach taken in the Environmental Statement has been to identify and assess the environmental effects of so doing in the light of current planning circumstances. In so doing, the need has also been reviewed. The EIA directives require the ES to include “an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects”. Alternatives that could meet the need are outlined in the next chapter.

## REGIONAL AND COUNTY CONTEXT

5.48 Grundon’s waste management and disposal facilities at Wingmoor are important components of the waste infrastructure of Gloucestershire, the South west region and further afield.

5.49 Gloucestershire has insufficient waste disposal capacity identified, permitted and in operation to meet its needs for the planning period to 2026. The Gloucestershire Waste Local Plan, which was adopted in 2004, allocated Grundon’s Wingmoor site for strategic and local waste management use and safeguarded it as a strategic waste disposal facility. Gloucestershire’s emerging Waste Development Framework assumes that the facilities at Wingmoor for treating, recycling and disposing of non-hazardous wastes will continue to play a key role in the future.

5.50 Regionally, and nationally, facilities for the management and disposal of hazardous waste are few and far between. For example, only 16 merchant (commercial) hazardous waste landfill facilities exist in the UK that have been granted an Environmental Permit by the Environment Agency, of which only 14 are operational, 3 of which are located in the south west region. The facility provided by Grundon at Wingmoor is the south west region’s single largest facility for the disposal of such wastes. The void space currently permitted at Wingmoor amounts to some 80% of the total currently available in the south west region, as explained in paragraph 5.213 below. For hazardous wastes, Wingmoor’s catchment extends beyond the south west into the south east of

England, London, the west midlands, Wales and Scotland.

5.51 Draft Modified RSS for the south west (DMRSS) says “managing waste is one of the greatest challenges facing the region over the period of the RSS” (paragraph 7.33). The regional approach is “to minimise the amount of waste produced in the region, and then to make a major shift away from current reliance on landfill of untreated waste, so that by 2020 less than 20% of waste produced in the region will be landfilled.” (paragraph 7.4.1).

5.52 DMRSS identifies minimum tonnages of municipal and commercial and industrial waste that are expected to be landfilled, for which provision has is required. The figures represent a significant reduction from the current position and the calculation “assumes diversion of sufficient quantities from landfill to meet the requirements of the Landfill Directive.” (Policy W1 and Tables 1 and 2). As to location, there is a preference for “strategic facilities at or near SSCTs” (paragraph 7.4.8 and Policy W2). Cheltenham and Gloucester are both SSCTs (strategically significant towns and cities).

5.53 The text accompanying DMRSS Policy W3 acknowledges that the “market for hazardous waste disposal at sites established for that purpose is now a highly specialised activity that operates in a market of at least regional and more probably national scale.” (paragraph 7.4.10). It says that, as well as meeting its own future needs, “the region should also seek to make a contribution to the national need in line with its own regional requirements”. (paragraph 7.4.11)

5.54 Policy W3 itself says: “Waste Planning Authorities should recognise the need for the development of capacity for the disposal on Stable Non-Reactive Hazardous Wastes at existing or proposed new landfill facilities (identified in Policy W1) and safeguard capacity for the disposal of other hazardous wastes at existing sites permitted and authorised as hazardous waste landfill sites provided they are environmentally acceptable.”

5.55 The text supporting Policy W3 states: “existing sites (i.e., for the disposal of hazardous waste) being located on the region’s boundary and close to the primary road network are well positioned to make a contribution to the national need in line with its own regional requirements. Existing sites should be safeguarded with proposals for extension considered within the context of the region’s contribution to wider national needs and the proposal’s local environmental impact.” (paragraph 7.4.10)

5.56 In summary, emerging regional policy expressed in DMRSS identifies a continuing need for additional

landfill capacity in the south west region and in Gloucestershire. Subject to environmental acceptability, DMRSS requires capacity at existing sites handling hazardous wastes to be safeguarded. Grundon's Wingmoor site is one of the existing sites referred to and has additional capacity. It is the single largest site handling hazardous waste in the south west and is well placed both in relation to SSCTs and in its ability to serve inter regional needs.

5.57 When adopted, RSS will be government policy for the south west region. The earlier, submission draft version of RSS is already the basis for the preparation of local development documents. If it is approved as set out in DMRSS, which appears likely, regional waste policy will require Gloucestershire and other waste planning authorities to make provision for landfill requirements for all types of waste.

5.58 The approach taken in this ES to the articulation of need for Grundon's proposals and the consideration of alternative ways in which the need might be met, reflects regional policy. That is, it begins with the overall national, regional and county need for continued landfill capacity and reflects established policy articulated in previous planning policy statements.

5.59 An articulation of need is the basis of the consideration of alternatives, an account of which, taking into account the environmental effects is required by Schedule 4, Part 2(4) of the EIA Regulations. Regional and local policy requires disposal capacity to be provided in Gloucestershire and assumes the application site to be a future resource. It is therefore necessary for the ES to consider the implications of the reduction in capacity that would result from closure of the Wingmoor facilities in conformity with current consents, and how such capacity could be replaced. The requirement that would then arise to replace capacity lost at Wingmoor elsewhere, and the environmental effects of so doing, have to be borne in mind when reaching conclusions about the overall environmental effects of the proposals.

5.60 The policy context relevant to need also relates to the characteristics of the Wingmoor site, particularly its location in the Green Belt, for which there is clear guidance in PPS2. The current condition of the application site, an incomplete, unrestored waste management and mineral extraction facility, and the need to complete its restoration, is also a key consideration. These matters are addressed later in this chapter and in Chapter 6.

5.61 The basis of the existing planning consents is the need to ensure that the mineral resources at Wingmoor have been properly exploited, to ensure that the valuable landfill capacity provided on site if efficiently utilised, and, when that has been done, to restore the site to an appropriate and environmentally acceptable condition in which it can become a valued amenity and rural resource accessible to local people. As explained earlier, the requirement to cease operations when incomplete appears to be anomalous and a misapplication of the statutory requirement to limit the life of mineral consents. Nonetheless, the requirement to submit a further application to continue the approved works to completion does not alter the basis of the previously defined need. Taking the advice of MPG2, set out above in paragraph 5.19, the ES has considered whether there are a material change in planning circumstances that might amend the conclusions of the planning authority confirmed over many years that the available clay, sand and gravel should be extracted and that the resultant void should be restored to a landform of a standard that that would be acceptable in the landscape of the Green Belt.

5.62 As MPG2 explains, the expectation is that the approved works should be permitted to go to completion. It is clear from the regional and local articulation of need that were this not to happen at Wingmoor that alternative provision would have to be made elsewhere, with a consequent environmental impact additional to that at Wingmoor.

5.63 As with any ongoing waste operation of significant scale, considerable practical issues would have to be addressed if the long term intentions for the site, which were established in 1989 and confirmed on many occasions since then, were to be significantly changed. It would not be possible for Grundon to 'close the gates and walk away'. The company would have to carry out substantial works over an extensive period to make the site safe and to ensure its integrity, in terms of the regulation of pollution controls, in the long term. For the purposes of EIA, the extent of these works is outlined in chapter 6, where they are described as the 'minimum engineering scheme'. They would require a further grant of planning permission, an application for which would have to be accompanied by an Environmental Statement. Such a scheme would not meet the current need provided by the application site and would not conform to regional and local policies.

5.64 Alternatives are addressed in detail in Chapter 6 of this ES. The remainder of this chapter addresses the following key aspects of need:

- the requirements of Green Belt policy and their implications for the restoration of the Wingmoor site
- the need for facilities for the disposal of non-hazardous waste disposal and recovery capacity
- the need for facilities for the disposal of hazardous waste disposal and recovery capacity
- the need for mineral extraction.

## GREEN BELT POLICY AND THE RESTORATION OF THE APPLICATION SITE

5.65 Wingmoor Farm is located in the northern reaches of the Cheltenham and Gloucester Green Belt, which covers an approximate area of 8,100 hectares. It is the second smallest Green Belt in the UK. The application site occupies 72 hectares, and while being a major landfill site in the Green Belt forms less than 1% of the designated area.

5.66 The Green Belt was incorporated into the County of Gloucestershire Development Plan First Quinquennial Review of 1968 in order to "preserve the open character of the land between the towns of Cheltenham and Gloucester and to prevent these communities merging into one another" (GCCSP 2nd review Adopted Nov. 1999, paragraph 9.1.2).

5.67 The areas covered by the Green Belt designation was then described as follows (Source: Paragraph 3.3.1, Cheltenham Green Belt Review Final Report, AERC for Cheltenham Borough Council, March 2007) :

*"lands south of Tewkesbury Road to the far west of Bar Bridge, crossing the A40 to include most of The Reddings, crossing the rail road line and moving easterly to border Hatherley, crossing Shurdington Road to border the southern boundary of Leckhampton, ending at Leckhampton Road."*

5.68 A report on the Green Belt by AERC, prepared for Cheltenham Borough Council in March 2007 recounts its history as follows: "The Gloucestershire County's first Structure Plan became operative on 21 October 1981 and influenced development for the entire administrative County up to 1996. This Plan re-affirmed the existing Green Belt land and expanded the designation to lands north of Cheltenham to protect the gap between Cheltenham and Bishop's Cleeve (Policy L6). Paragraph 13.55 allowed Local Plans to review the detail of the boundaries to accommodate local changes that may be required, e.g. to reflect major highway proposals. Policy CM 3 directs the Councils to promote measures to secure co-ordinated countryside management around the urban fringes of Gloucester and Cheltenham, including Green Belt areas."

5.69 The report also includes the following extract from the 1981 Structure Plan:

*"Policy L6*

*A Green Belt will be defined between Gloucester and Cheltenham and north of Cheltenham. Within the Green Belt development will only be permitted where it is essential to meet the needs of agriculture, forestry, open are recreation, cemeteries, institutions standing in large grounds or other use appropriate to rural areas..."*

5.70 In the explanatory that accompanied the policy, the 1981 Structure Plan stated (Source: Paragraph 3.3.4, Cheltenham Green Belt Review Final Report, AERC for Cheltenham Borough Council, March 2007) :

*"The original Green Belt was designated to preserve the open character of the land between Gloucester and Cheltenham and to prevent the merging of the two towns. This principle is reaffirmed by the Policy. However, it is over ten years since this designation was approved and it is recognised that local circumstances may have changed, for example, by major highway proposals. It is therefore considered appropriate that the detail of the boundaries should be reviewed when Local Plans are prepared.*

*The purpose of defining this Green Belt is therefore to impose limits on urban sprawl and uses in the countryside, to prevent the merging of Gloucester and Cheltenham and to retain the open character of the adjacent countryside. In addition the definition of Green Belt areas will confirm a long-term agricultural future by reducing uncertainty and providing security for agricultural investment. Particular attention will be paid to the retention of economically viable agricultural holdings. It is intended that these protective measures will be supplemented with positive countryside management policies."*

5.71 Planning Policy Guidance Note 2 'Green Belts' explains in paragraph 1.5 that "There are five purposes of including land in Green Belts:

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns from merging into one another;
- to assist in safeguarding the countryside from encroachment;
- to preserve the setting and special character of historic towns; and
- to assist in urban regeneration, by encouraging the recycling of derelict and other urban land."

5.72 The first three purposes are directly applicable to the creation of, firstly, the Cheltenham – Gloucester

Green Belt and, secondly, the Cheltenham – Bishop’s Cleeve Green Belt extension, as identified above. This was maintained in the 1981 Structure Plan re-affirmation of the existing Green Belt its expansion to include land between Cheltenham and Bishop’s Cleeve, protecting the gap contained therein.

5.73 This is given continued weight in the current adopted Policy GB1 of the Gloucestershire Structure Plan Second Review, 1999, which states:

*“The Green Belt between Gloucester and Cheltenham and north of Cheltenham will be maintained. Within the Green Belt only appropriate development which would not compromise the open character of the Green Belt or which would not contribute to the coalescence of settlements will be permitted”.*

5.74 The explanatory text to Policy GB1 explains in paragraph 9.2.1 that the policy *“...seeks to ensure that, in the main, the Green Belt will continue to be subject to strict planning controls with only appropriate development, as described in PPG2 and detailed in the local plans, being allowed. The principle of preventing the coalescence of Cheltenham and Gloucester, and Cheltenham and Bishop’s Cleeve is still considered to be appropriate and important. The need to protect the individual identities and character of each settlement is accepted.”*

5.75 Paragraph 9.2.4 continues: *“In Opportunities to fulfil the positive objectives for land use in the Green Belt as set out in PPG2 will be supported by the County Council. Examples would include land management initiatives, which will secure improved accessibility and amenity for people living in Gloucester and Cheltenham, and also those projects which will improve and protect the biodiversity of the area. The importance of maintaining open space around the urban areas for recreation, tranquillity and wildlife habitats is also recognised.”*

5.76 In applying the Green Belt policy to their local area, and protecting the designation through appropriate policy, the Tewkesbury Local Plan 2006 states in Policy GRB1 that: *“In the Green Belt, planning permission will be granted for development other than...c) the carrying out of an engineering or other operation of the making of a material change in the use of land provided that it maintains the openness of the Green Belt and does not conflict with the purposes of including land in it.”*

5.77 The full extent of the Green Belt, and the location of the application site within it, is shown on Figure 5.1.

5.78 It can be seen that the application site sits in an area of open land on the western fringe of Bishop’s Cleeve. Its location is removed from the open land that currently separates Bishop’s Cleeve from Cheltenham and its northern boundary forms the northernmost boundary for the Green Belt itself.

5.79 As explained in the GCCSP, the purpose of the original Green Belt was to ensure the continued separation of Cheltenham and Gloucester. At the time of its designation, the application site would have been undeveloped and in agricultural use. By December 1962 planning permission T.4037 had been granted for the extraction of sand and gravel from 14 acres (approximately 6 ha) of land to the south of the existing Cheltenham North Rugby Club.

5.80 A further planning permission (T4402/A) was granted in 1968 for the use of approximately 120 acres (approximately 49 hectares) of land at Wingmoor Quarry for the winning of sand and gravel including restoration to agricultural purposes. Another permission followed in 1979 (T4402/H) that gave consent for the use of land for tipping at Lower Farm and Wingmoor Farm.

5.81 By 1981, therefore, a substantial mineral extraction and tipping operation had been given consent on lands that form and lie adjacent to the application site.

### **The Green Belt as a consideration in the grant of planning consent at Wingmoor**

5.82 Following the expansion of the Green Belt to include lands between Cheltenham and Bishop’s Cleeve, a further 16 planning consents have been granted at the application site for a range of mineral and waste related activities. These are listed in Table 5.1.

5.83 Eleven of these permissions were granted between the adoption of the first County Structure Plan in 1981 and its replacement in 1999. Policy L6, states that *“Within the green belt development will only be permitted where it is essential to meet the needs of...other uses appropriate to a rural area.”* On these eleven occasions the planning authority has concluded that the grant of planning permission is in accordance with policy L6. Planning circumstances have not significantly changed since those decisions.

5.84 Since the adoption of the GCCSP 2nd Review in 1999 a further two permissions have been granted for development at the application site, whilst since the adoption of the Tewkesbury Local Plan in 2006 a further 3 permissions have been consented adjacent to the

**Table 5.1 Consented Development at the Application Site Post Designation of the Cheltenham – Bishop’s Cleeve Green Belt**

Application	Description of Development	Date Consent Issued
88T/8446/01/02 22.11.88 Wingmoor Farm	Extraction of sand and gravel [50ha] with restoration to agriculture by controlled waste tipping. Formation of new access. <i>Land at Wingmoor Farm, Stoke Road, Bishop’s Cleeve.</i>	Approved 12.05.89
90T/8446/01/11 8.5.90 Wingmoor Farm	Variation of condition (11) of planning permission 88T/8446/01/02 (limiting extraction of sand and gravel only) for clay. <i>Land at Wingmoor Farm, Stoke Road, Bishop’s Cleeve.</i>	Approved 28.07.90
94/8846/0992 24.8.94 Wingmoor Farm	Erection of ash conditioning plant.	Approved 10.10.94
95/8446/0222 Wingmoor Farm	Change of condition [Condition 3 of planning permission 88T/8446/01/02] for the re-phasing of Scheme of Working	Approved 18.04.95 (effective from)
95/8446/1099 18.10.95 Wingmoor Quarry and Wingmoor Farm	The joining together of two landfill sites and adjustment to final levels in order to create a single contoured restoration.	Approved 09.04.96
96/4037/0379/ Ful Wingmoor Quarry	Retention of surface mounted weighbridge and maintenance workshop (T.4037/K)	Approved 24.05.96
96/8846/0510 13/7/96 Wingmoor Farm	Variation of condition 28 attached to planning permission 88T/8446/01/02.	Approved 01.10.96
97/8446/0130/FUL 21 January 1997 Wingmoor Farm	Erection of gravel processing plant	Approved 14.05.97
97/8446/1093/AGR 04.11.1997 Wingmoor Farm	Erection of a barn for general agricultural storage	Approved 2.12.1997
97/8446/0816/MIN 23rd July 1997 Wingmoor Quarry	Review of Mineral Sites: Submission of planning conditions <i>Wingmoor Farm Pit, Stoke Orchard Road, Bishop’s Cleeve, Cheltenham</i>	Approved 2.10.97
T/98/8446/0015 23rd December 1997 Wingmoor Farm (part of topsoil storage area)	Erection of buildings and associated plant for the processing of Clay into lightweight aggregate. [Site area: 6.5ha]	Approved 18.06.98
T/01/5446/0723/Ful 22 May 2001 Wingmoor Farm (part of topsoil storage area)	Non-compliance with condition 1 of T/98/8446/0015. Extension of time to commence development involving the erection of buildings and associated plant for the processing of Clay into lightweight aggregate. [Site area: 6.5ha]	Approved 25.07.01
04/8446/00118/Ful 16th January 2004 Wingmoor Farm	Installation of landfill gas engine, landfill gas flare, control cabin and associated plant within compound	Approved 29.03.2004
05/4037/1317FUL 2nd November 2005 Wingmoor Quarry	The erection of a Materials Recovery Facility, including the replacement ancillary vehicles servicing and offices, replacement weighbridge facilities including control cabin, inert waste classification storage and transfer shed and storage of baled recovered materials. (50,000 tonnes throughput)	Approved 5th April 2006
07/0042/TWMAJW 3rd July 2007 Wingmoor Quarry	Variation of Condition 12 of planning permission 05/4037/1317 which relates to the occupancy and use of the offices / workshops.	Approved 19.09.2007
07/0046/TWMAJW 20th July 2007 Wingmoor Quarry	Installation of double gated entrance – to the MRF	Approved 19.10.2007

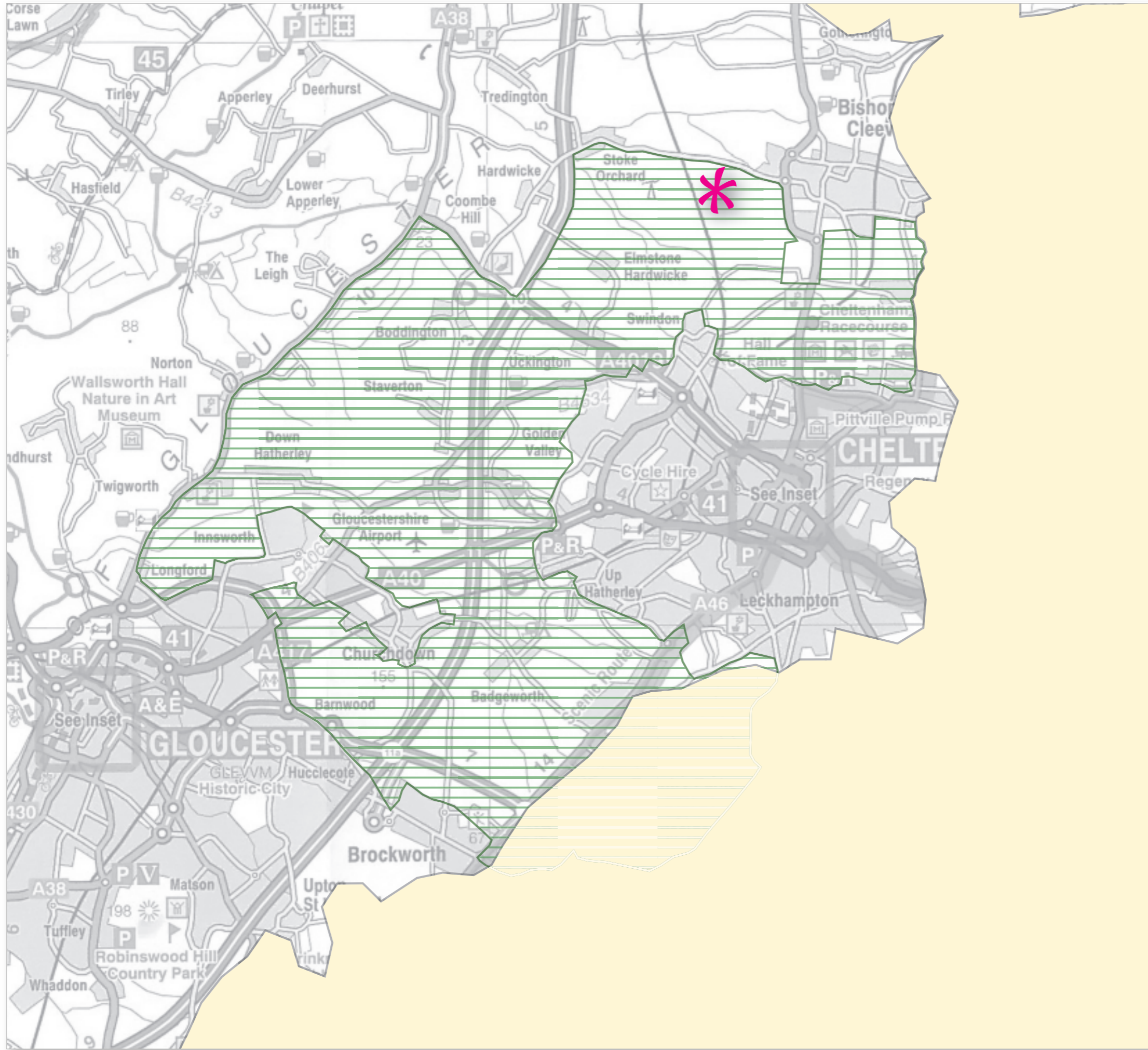





Figure 5.1 : Cheltenham and Gloucester Green Belt

-  The Site
-  Cheltenham Green Belt
-  Cotswold Area of Outstanding Natural Beauty



Source. *Magic.gov.uk*

Not to Scale

Based upon the Ordnance Survey scale map with the permission of The Controller of Her Majesty's Stationery Office  
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application site for the development of the Materials Recycling Facility.

5.85 Of particular note is planning permission reference 95/8446/1099 for the joining together of two landfill sites and adjustment to final levels in order to create a single contoured restoration, which was granted consent in April 1996. In determining this application the planning authority would have considered, and deemed satisfactory, its location in the Green Belt, the provisions of the January 1995 publication of PPG2, and the controls put in place by adopted 1981 Structure Plan policy L6 and its explanatory text which, at that time carried material weight. In respect of their implications for the Green Belt, Grundon's current proposals are not significantly different from those already approved. Therefore, there is no reason to believe that they would be not be considered acceptable in the context of Green Belt policy.

### **The Green Belt and Allocation of the Application Site**

5.84 These conclusions are in line with those reached by Gloucestershire County Council as part of the preparation of the Adopted Gloucestershire Waste Local Plan 2004. This document remains partly in force and was prepared and tested at Public Inquiry with the benefit of PPG2 as amended in 2001 having been published and the publication of the GCCSP 2nd Review, itself having been recently adopted.

5.85 Policies 4 and 5 allocated land at the application site for inclusion within the WLP as areas for future strategic and local scale waste management development for the period through to 2012. These allocations were shown on Inset Maps 2 and 17. Both allocations recognised the Green Belt status of the sites' setting and, under the consideration of site specific criteria for development of each allocation stated: *"The Green Belt status of the site may require demountable buildings to be provided and their use limited to the duration of the landfill/landraise operations"*.

5.86 Policy 35 'Green Belt' of the WLP considered development in the Green Belt in more detail. However, like Policies 4 and 5, Policy 35 has not been saved as part of the retained WLP policies to provide the interim waste planning framework for the County. In September 2007 the Secretary of State informed GCC that these three policies, along with a number of others, would expire on the 10th October 2007, explaining that all three policies *"refer to the BPEO which has been superseded by PPS10"*.

5.87 Acknowledging that these policies and their associated provisions have been deleted largely on a technicality, the County council has said that the previous allocation of sites will be a material consideration in the determination of planning applications for waste management development, the weight to be attached to these considerations being decided by the planning authority.

### **Green Belt and the Emerging Waste Development Framework**

5.88 The emerging Gloucestershire Waste Core Strategy picks up the issue of Green Belt policy and waste planning under paragraph 130 of the Preferred Options report January 2008. This explains: *"Some of the County's key waste management sites are located in the Gloucester / Cheltenham green belt. Whilst the Government seeks to protect green belts its policy has changed in terms of the approach to the acceptability of waste management facilities in green belts. These matters are dealt with in some detail in Technical Evidence Paper WCS-1 Waste Facilities in the Green Belt."*

5.89 The document goes on to outline three possible future policy approaches to considering waste proposals in the Green Belt ranging from seeking accordance with PPG2 and PPS10 through to criteria based approach to the use of buildings in the Green Belt and the consideration of removing Green Belt status of land which GCC may seek to identify as future waste site allocations.

### **Waste Facilities in the Green Belt**

5.90 Waste Core Strategy (WCS) Technical Paper WCS-1 'Waste Facilities in the Green Belt' explains GCC's consideration of Green Belt issues when making provision for waste development. Paragraphs 12 – 14 consider the provisions of the Government Circular 11/05: The Town and Country Planning (Green Belt) Direction 2005, which requires planning applications that fall within its scope to be referred to the Secretary of State under that Direction rather than under the 1999 Departures Direction. Paragraph 3 of the Direction states:

*"This Direction shall apply to any application for planning permission involving inappropriate development on land allocated as Green Belt in an adopted local plan, unitary development plan or development plan document and which would involve:*

- a) the construction of a building or buildings with a floor space of more than 1,000 square metres; or*
- b) any other development, which, by reason of its scale or nature or location would have significant impacts on the openness of the Green Belt."*

5.91 In considering whether a planning application falls within the scope of paragraph 3(b) above, the Paper explains that *"a local planning authority will first need to decide whether the development would appear to be 'inappropriate', as defined in PPG2. If it appears to be inappropriate then the authority will need to decide whether it would have a significant impact on the openness of the Green Belt. The scale and nature of the development are also relevant considerations."*

### **PPG2 and Inappropriate Development**

5.92 In considering these points it is helpful to revisit the reasons as to why this area of Green Belt has been designated, the objectives of the use of that land and whether the development would be inappropriate or not. As outlined above, the purpose of the Cheltenham – Bishop's Cleeve Green Belt designation is to *"preserve the open character of the land between the towns of Cheltenham and Gloucester and to prevent these communities merging into one another"* (GCCSP 2nd review Adopted Nov. 1999, paragraph 9.1.2).

5.93 Paragraph 1.6 of PPG2 explains that "Once Green Belts have been defined, the use of land in them has a positive role to play in fulfilling the following objectives:

- To provide opportunities for access to the open countryside for the urban population;*
- To provide opportunities for outdoor sport and recreation near urban areas;*
- To retain attractive landscapes, and enhance landscapes, near to where people live;*
- To improve damaged and derelict land around towns;*
- To secure nature conservation interest; and*
- To retain land in agricultural, forestry and related uses."*

5.94 Whilst paragraph 1.7 of PPG 2 goes on to explain that *"The extent to which the use of land fulfils these objectives is however not itself a material factor in the inclusion of land within a Green Belt"* (added emphasis) they can be considered material to these proposals as the application site is (a) already included with the Green Belt and, therefore, (b) has a possible role to play in fulfilling such objectives.

5.95 These objectives would be met by the restoration of the Wingmoor site as proposed.

5.96 Paragraph 3.1 of PPG2 explains a general presumption against inappropriate development in the Green Belt and says such development should not be approved except in very special circumstances. In setting

this policy, the PPG also provides accompanying guidance as to what may constitute very special circumstances in which inappropriate development be permitted.

5.97 Paragraph 3.11 states: *"Minerals can only be worked where they are found. Mineral extraction need not be inappropriate development: it need not conflict with the purposes of including land in Green Belts, provided that high environmental standards are maintained and that the site is well restored."* The original Wingmoor operations were permitted to exploit an identified mineral resource, the later inclusion of the site within the wider Green Belt would appear to have been considered to not be in conflict with the purpose of the Green Belt when it was designated.

5.98 Paragraph 3.11 of PPG2 continues: *"Mineral Planning Authorities should ensure that planning conditions for mineral working sites within the Green Belt achieve suitable environmental standards and restoration."* The evidence is that the proposals approved by the planning authority, which have not significantly been amended in the proposals, are considered to meet these requirements. Paragraph 3.15 of PPG 2 goes on to highlight the need for development proposals to avoid injury to the visual amenity of the Green Belt.

5.99 Both the existing and the proposed operations are centred around the restoration of the voids that have been and will be created through the extraction of minerals in the Green Belt, the mineral extraction itself has been seen to be an acceptable use of the land to allow the exploitation of the minerals in the location at which they have been found. This continues through the proposed forecast extraction of engineering clay, not only for essential on site purposes but also for the provision of an identified off site market. The provision of minerals in this manner from an already opened and operating minerals extraction site is wholly consistent with Government, Regional and Local minerals planning policy and therefore considered to be consistent with paragraph 3.11 of PPG2.

5.100 It is on his basis that provisions were made and have been reviewed and updated in this application to ensure continued compliance with paragraph 3.11 of PPG2 through the following means: the operation of ongoing mineral extraction and waste disposal operations to the highest environmental standards; and to ensure that the site is well restored.

5.101 In accordance with PPG2, and as required by the planning and environmental permitting regimes, the site is and will continue to be operated in full compliance

within its stringent environmental, planning and pollution controls. Further, this ES has concluded that the proposed continued operation of the site would not introduce any significant adverse environmental effects upon the receiving environment. On this basis, the proposals are considered to be environmentally acceptable.

5.102 The restoration of the site has been developed to reflect not only the best operational practice for the site, but also to ensure that the final restoration does not conflict with the purpose of designating the Cheltenham – Bishop’s Cleeve Green Belt or introduce any degree of injury to that Green Belt by virtue of adverse impacts upon the visual amenities afforded by the openness of the Green Belt in this area.

5.103 The proposals are designed to mitigate the sites impact upon the visual amenity of the Green Belt rather than injure it, representing as they do the most appropriate means of avoiding unsustainable sterilisation of winnable mineral resources, inefficient and unacceptable loss of essential disposal capacity and returning the land to a use consistent with the purpose of the surrounding designated land.

5.104 Indeed, once the Wingmoor site has been restored it will contribute to the open character of the area and, by virtue of its status as a restored landfill and binding after-use commitments, effectively preclude the possibility of any other development from taking place upon it. It can reasonably be concluded that the proposals do not conflict with the purpose of the Green Belt designation and that neither the existing use or these proposals and the intended restored afteruse to agriculture, with areas set aside for recreation and nature conservation, constitute inappropriate development in the Green Belt.

### The Emerging SW RSS and the Green Belt Review

5.105 The emerging south west regional Spatial Strategy includes growth areas to the north west of Cheltenham within the Green Belt as part of the provision of 8,100 new homes in the Cheltenham area (Policy HMA3 and Key Diagram Inset 3).

5.106 These allocations have been developed from detailed consideration of the Green Belt designation in this area, its purpose and how future growth can best be accommodated. This includes consideration of the potential for amendments to the Green Belt boundary to allow for future growth requirements to be accommodated in the Cheltenham area. Consequently,

whilst the coverage of the existing Cheltenham – Bishop’s Cleeve Green Belt is clear, its future purpose and extent is not and may be amended to accommodate these growth requirements. However, any such review of the Green Belt in this area is not considered likely to have any impact upon the application site or the extent and status of the Green Belt that surrounds the application site.

## THE NEED FOR NON-HAZARDOUS WASTE DISPOSAL AND RECOVERY CAPACITY

### The Waste Strategy

5.107 The Waste Strategy for England 2007 was published in May 2007 and sets out the Government’s vision for sustainable waste management in England and Wales for the period up to 2020. The new Strategy builds upon Waste Strategy 2000 and the progress made since then and addresses the key challenges for the future through additional objectives and targets. It re-affirms the importance of the waste hierarchy emphasising a need to prevent waste arising in the first place, maximise re-use, increase recycling and composting and recovering energy from waste with landfill remaining an option of last resort.

5.108 Since the publication of the first Waste Strategy in 2000 ‘Box 1.3’ of the 2007 Strategy advises the following positive changes had been achieved:

- a slow down in the growth rate for municipal waste to 0.5% per annum nationally since 2000 compared to 3.5% per annum nationally before 2000;
- a quadrupling of the national household waste recycling achievements to 27%, exceeding the 2005 target of 25%;
- a doubling of the recycling of packaging waste from 27% in 1998 to 56% in 2006;
- a reduction in the quantity of municipal waste landfilled from 82% to 62% of all municipal waste arisings between 1998/99 and 2005/06 and from 50% to 44% for all industrial and commercial waste arisings between 1998/99 and 2002/03; and
- an increase in public awareness and participation in recycling with more than half of the population considering themselves as committed recyclers.

5.109 Despite the above achievements the Strategy recognised that as a country we continue to produce more waste each year than the previous year, although these increases no longer exceeded economic growth. Consequently, the growth in waste arisings is slowing down but, after seven years of successful initiatives since

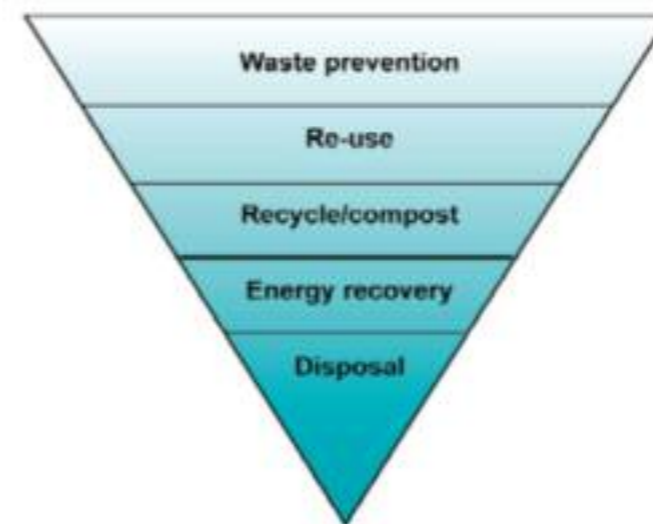
2000 had not turned the corner to begin reducing. To continue the progress achieved the 2007 Strategy identified the overall objective for waste policy as:

*“Protection of human health and the environment by producing less waste and by using it as a resource wherever possible. Through more sustainable waste management – reduction, re-use, recycling, composting and using waste as a source of energy – the Government aims to break the link between economic growth and the environmental impact of waste.”*

(Source: Waste Strategy for England 2007; Box 1.5)

5.110 The waste policy objective is encapsulated in the waste hierarchy, as introduced by the Waste Framework Directive and shown below:

Figure 5.2 The Waste Hierarchy



- The most effective environmental solution is often to reduce the generation of waste – prevention
- products and materials can sometimes be used again, for the same or different purpose – re-use
- resources can often be recovered from waste – recycle or compost
- value can also be recovered by generating energy from waste – energy recovery
- only if none of the above offer an appropriate solution should waste be disposed of - disposal

Source: Waste Strategy for England 2007

5.111 To back this up the first key objective of the 2007 Waste Strategy is to “decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use” (paragraph 23). In turn the

following four key objectives identified in the Strategy apply to waste management generally and the role that energy from waste may play in achieving sustainable waste management in England:

- Meet and exceed the landfill directive diversion targets for biodegradable municipal waste in 2010, 2013, and 2020;
- Increase diversion from landfill of non-municipal waste and secure better integration of treatment for municipal and non-municipal waste;
- Secure the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste;
- Get the most environmental benefit from that investment, through increased recycling of resources and recovery of energy from residual waste using a mix of technologies.

(Source: Waste Strategy for England 2007; chapter 1; paragraph 23)

5.112 To achieve these challenging objectives a number of key drivers and targets have been put in place that, in combination, seek to make waste disposal to landfill increasingly less attractive for wastes that could be managed by some other method higher up the waste hierarchy.

5.113 In particular, a fiscal driver, the landfill tax escalator, has been increased so that the standard rate of tax will increase by £8 per tonne per year between 2008 until at least 2013. These increases are expected to provide greater incentives for higher tonnages of waste to be diverted from landfill and into treatment facilities for recycling, composting and recovery. The fiscally driven demand for alternative capacity to landfill is anticipated to provide increased certainties to developers and operators to provide an increasing range of waste recovery facilities.

5.114 To monitor progress made towards the overarching objectives of the Strategy, to reduce waste being produced and being disposed of to landfill, a number of indicators and targets have been outlined in the Strategy.

5.115 The Strategy continues to recognise that it is not generally appropriate to express a preference for any one thermal or energy recovery technology over another since local circumstances differ so much. Further, it considers it is unhelpful to rule out a particular technology, such as incineration, in advance, since this unnecessarily restricts options and threatens to raise costs. Consequently, it is appropriate to consider that in meeting the Governments re-use, recycling, composting and recovery targets the following waste management options are relevant:

- Waste re-use initiatives
- Recycling
- Green Waste Composting
- Food Waste Composting
- Mechanical Biological Treatment
- Anaerobic Digestion
- Incineration
- Gasification
- Pyrolysis

5.116 The Strategy emphasises that the key to more efficient recovery of materials is investment in infrastructure. The Government is keen to ensure that this, amongst other key objectives, is reflected in regional and local policies to ensure that recovery facilities are delivered and targets in the Strategy are met. It is therefore considered by the Government in its Strategy that the increased diversion of waste arisings away from landfill through the utilisation of a combination of recycling, composting and other recovery methods, including materials recovery facilities, forms part of a flexible modular approach to waste management.

5.117 At the same time, the Government, in recognising the full scope of the waste hierarchy, is clear that management of wastes through safe disposal remains as an essential component of providing for sustainable waste management, and its role and provision that sites can make must be given appropriate consideration and value.

### Planning Policy Statement 10

5.118 It is helpful to consider PPG2 alongside the relevant policies of PPS10 ‘Planning for Sustainable Waste Management’. Paragraph 3 of PPS10 explains that in preparing planning strategies for waste development local planning authorities should seek to “*protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission*”.

5.119 The Wingmoor facilities are part of a sustainable network of waste management infrastructure, not only for Gloucestershire and the wider south west region but also for surrounding regions and beyond. Whilst it is recognised at all levels of policy and strategy preparation that landfilling is a last resort in any integrated system of sustainable waste management infrastructure, it is

nonetheless an essential element of capacity provision. Increased diversion of waste from landfill is being achieved yet residues remain that must be safely and responsibly disposed of making the most sustainable and efficient use of available capacity.

5.120 PPS10 recognises the need to make adequate provision of waste management capacity including the provision of facilities for recycling and waste recovery and for disposal capacity (paragraph 3).

5.121 The proposals whilst not on a site that is currently allocated in the development plan following the deletion of key policies from the County Waste local Plan, would contribute towards attainment of the emerging objectives of the GCC Core Strategy, comply with PPS10 (paragraph 24) and would not prejudice the delivery of the waste management strategy for the area (paragraph 25) as they would manage an identified quantity of residual waste once all identified efforts have been made to move waste up the hierarchy.

5.122 They also meet provisions relating to environmental impacts associated with the allocation and use of land for waste management development (Annex E of PPS10) as demonstrated through the wider ES.

### Regional Forecasts

5.123 Adopted Regional Planning Guidance Note 10 for the South West does not include any considered data analysis for target based aspirations for waste management that seek to apportion and guide how waste should be managed within the region by each Waste Planning Authority.

5.124 Although reference is made to national targets at the time, the main direction of the RPG’s strategy for waste management was “*made up of three main components: guidance towards a mix of waste management methods; targets combining the Strategy and Assessment, and guidance on the location of major waste management facilities related to the PUAs.*” (RPG10, paragraph 9.26). (Strategy: National Waste Strategy 2000; Assessment: A Waste Management Assessment for the South West, Environment Agency, January 2001, PUA: Principal Urban Area – both Gloucester and Cheltenham are PUAs (RPG10, paragraph 3.12))

5.125 To achieve this, RPG includes the principles and targets from the National Waste Strategy 2000 and attributes these to each local authority in the region, as targets to which they are expected to work. The detailed application of these targets is left for the individual authorities to determine through their development plans,

and for the Regional Planning Body to progress through the development of the South West Regional Waste Management Strategy (SWRWS) (2004).

5.126 The SWRWS was published in 2004 and is the first regional level waste publication that attempted to identify in detail what wastes were being produced in the south west, in what quantity and how they were then managed. It then went on to identify what would be the likely future scenario for waste production given data available at the time and how this should be translated into a strategy for the region to better manage its wastes, considering the targets referenced above. Appendix C to the SWRWS includes detailed apportionments for each local authority in the south west region.

5.127 Benefitting from the SWRWS, the draft Regional Spatial Strategy for the South West (draft RSS) has been able to take a more proactive role in respect of waste forecasting and apportionments than that taken by RPG10. It sets out the indicative strategic waste management allocations that are applicable to each Waste Planning Authority in the south west region, which are now proposed to be included as part of Policy W1 of the draft RSS.

5.128 When published these allocations will set the parameters to which “*Waste Planning Authorities should make provision in their Local Waste Development Frameworks (involving joint working where necessary) for a network of strategic and local waste collection, transfer, treatment (including recycling) and disposal sites to provide the capacity to meet the indicative allocations for their area...*”.

**Table 5.2 : Extract (Gloucestershire) from draft RSS Table 1: Municipal Waste – Annual Municipal Waste Management Capacities for Landfill Directive Target Years**

Target Year	Sub-Region	Minimum Source Separated (000s t/annum)	Secondary Treatment (000s t/annum)	Minimum Landfill (000s t/annum)
2010	Gloucestershire	130	80	160
2013		150	120	130
2020		170	200	60

**Table 5.3 : Extract (Gloucestershire) from draft RSS Table 2: Commercial and Industrial Waste – Annual Commercial and Industrial Waste Management Capacities for Target Years**

Target Year	Sub-Region	Recycling / Re-use (000s t/annum)	Recovery (000s t/annum)	Landfilled (000s t/annum)
2010/11	Gloucestershire	260-280	150-180	285-315
2013/14		270-300	170-190	240-260
2020/21		300-320	260-290	110-120

5.129 The RSS goes on to state at paragraph 7.4.1 that “*Managing waste is one of the greatest challenges facing the region over the period of the RSS. ‘From Rubbish to Resource’, the Regional Waste Strategy, was published after extensive consultation in 2004, and sets out in detail the regional approach to reducing and managing the region’s waste. The south west’s approach to waste is to “minimise the amount of waste produced in the region, and then to make a major shift away from current reliance on landfill of untreated waste, so that by 2020 less than 20% of waste produced in the region will be landfilled*”.

5.130 This is an ambitious target and will require effort by all parties that generate and manage waste and by local government to play its part in the granting of the necessary permissions for a wide range of facilities to manage that waste.

5.131 The RSS sets out the required provision of capacity to handle current and future waste arisings on a sub regional basis. This envisages, under policy W1, a network of strategic and local waste collection, transfer, treatment (including recycling) and disposal sites to provide the capacity to meet the indicative allocations for their area. These are based on the assumption that each County is to broadly aim for self-sufficiency in waste management capacity. The data included as part of these waste apportionments and as identified for Gloucestershire, is presented below.

5.132 Tables 1 and 2 of the draft RSS, extracts from which are shown in Tables 5.2 and 5.3, can be used as an initial means of identifying the ongoing waste recovery

and landfill disposal trends expected at regional level to be provided in Gloucestershire. It is clear that, to achieve the progressive reduction in the reliance upon landfill, existing waste recovery facilities will need to be increasingly supplemented, through the provision of new recovery capacity to divert waste from landfill, as identified in the targets years in Tables 5.2 and 5.3. This applies not just to municipal wastes but also to industrial and commercial wastes.

5.133 Although the RSS does not give guidance on what may be considered as a 'strategic' facility either in terms of scale or technology, the Wingmoor Quarry complex was previously identified as both a strategic facility for future waste recovery capacity, with the MRF area identified as a preferred location for a local waste recovery facility in the Waste Local Plan.

5.134 In terms of making a contribution towards the need to divert waste from landfill, up to 490,000 tonnes per year of material is to be recycled in Gloucestershire by 2020. The MRF throughput at Wingmoor Farm represents around 10% of the required capacity.

5.135 Materials recovery rates vary according to what is being fed through the plant. Segregated waste will achieve recovery rates greater than 95%, whilst the most difficult un-segregated 'black bag' wastes may see recovery rates as low as 30%. Most MRF's will cope with both extremes by changing the way the plant is operated and in

basic terms a MRF is either operated on a 'clean' or 'dirty' basis depending upon the input materials and the overall envisaged recovery rate.

5.136 A 'clean' MRF removes the contaminants from a waste stream rich in recoverable material whilst in a 'dirty' MRF the recoverable material is picked out from a waste stream with a low recoverable content. As such they can be switched between the two relatively quickly. Grundon's other MRF's operate in the average recovery range of 70-95%. This rate is also anticipated at the Wingmoor MRF. If the County's waste facilities were to recover 75% of the waste input then a capacity of some 650,000 tonnes per year would actually be required to deliver the required recovery rate. On this basis the County would require thirteen 50,000 tonne facilities.

5.137 As the MRF at Wingmoor Farm is located in close proximity to a number of principle waste sources, in particular the strategically significant cities and towns of Gloucester and Cheltenham, it assists in the provision of a network of local waste recovery facilities to achieve identified waste diversion targets. The facility is co-located with other waste facilities, namely the non-hazardous landfill, is situated on previously developed land and will be retained alongside the extended landfill with operation of the MRF ceasing before the end of 2028.

5.138 Table 5.4 is based upon meeting the disposal requirements identified above. It assumes that, between

each target year (identified in italics), an incremental reduction will be made year on year that will assist in attainment of those targets. This has been calculated simply, using the net difference between each target year divided over the period between those targets. In the absence of any additional diversion targets post 2019 / 2020, this incremental reduction has been assumed to cease at 2019/2020 at which point tonnages for disposal will remain static.

5.139 On this basis, the draft RSS suggests that, in Gloucestershire, approximately 1.5 million cubic metres (Mm<sup>3</sup>) of voidspace will still be needed as part of the process of achieving the municipal waste management forecasts identified in the draft RSS.

5.140 Additionally, between 2.8 Mm<sup>3</sup> and 3.0 Mm<sup>3</sup> of voidspace will be needed to accommodate residual commercial and industrial (C&I) wastes over the period to 2010/2011 and through to 2025/2026, the end of the draft RSS period of coverage. On this basis, a total of between 4.3 – 4.5 Mm<sup>3</sup> of non-hazardous voidspace will need to be provided in Gloucestershire between 2010/2011 – 2025 / 2026 if its forecast role, as identified in the draft RSS, is to be successfully achieved.

5.141 However, this estimate only applies to the MSW and industrial and commercial (I&C) waste streams and, as such, does not take any account of ongoing disposal requirements for construction, demolition and excavation

(CD&E) wastes throughout this period.

5.142 It is also important to note that the disposal trends identified above in Table 5.4 assume that there is adequate primary and secondary waste diversion capacity in place on time and at the required scale, as specified in Tables 5.2 and 5.3. In particular, facilities such as the materials recovery facility proposed as part of this application will play a critical role in ensuring that the disposal trends identified materialise as forecast.

5.143 No account has been made for failure to achieve this in Gloucestershire at this stage, reinforcing the point made above that the estimate provided for disposal capacity requirements based upon the draft RSS data is conservative and should be taken as a minimum. If the materials recovery facilities proposed as part of this development were to receive consent, this will clearly assist both Gloucestershire and the south west region in working towards the provision of the essential waste recovery capacity required.

5.144 Table 5.5 identifies existing diversion capacity as at 2007 and the forthcoming draft RSS targets for diversion. It allows for an estimate to be made as at 2007 of Gloucestershire's shortfall in diversion capacity for non-hazardous wastes that must be addressed by 2010/2011.

5.145 As shown, the minimum shortfall for non-hazardous waste diversion capacity as at 2007, based upon

**Table 5.4 : Indicative Forecast of draft RSS Disposal Requirements for MSW and I&C Wastes for Gloucestershire**

Year	Draft RSS MSW for disposal	Draft RSS I&C wastes for disposal (min)	Draft RSS I&C wastes for disposal (max)
2010/2011	160000	285000	315000
2011/2012	150000	270000	296667
2012/2013	140000	255000	278334
2013/2014	130000	240,000	260000
2014/2015	120000	222,857	240000
2015/2016	110000	205,714	220000
2016/2017	100000	188,571	200000
2017/2018	90000	171,428	180000
2018/2019	80000	154,285	160000
2019/2020	70000	137,142	140000
2020/2021	60000	110000	120000
2021/2022	60000	110000	120000
2022/2023	60000	110000	120000
2023/2024	60000	110000	120000
2024/2025	60000	110000	120000
2025/2026	60000	110000	120000
<b>Total Tonnes</b>	<b>1510000</b>	<b>2798997</b>	<b>3010001</b>
<b>Total void @ 1t / m<sup>3</sup></b>	<b>1,510,000</b>	<b>2,789,997</b>	<b>3,010,001</b>

**Table 5.5 : MSW & I&C Waste diversion capacity 2007**

Facility Type	MSW capacity tpa <sup>1</sup>	Draft RSS MSW requirements at 2010	I&C Capacity tpa <sup>2</sup>	Draft RSS Requirements at 2010
Windrow Composting	69000	130000 (min)	58000 <sup>5</sup>	280000
In Vessel composting	60000 <sup>4</sup>		-	
Recycling HRCs	51840 <sup>6</sup>		161000	
Recycling General <sup>3</sup>	-	80000	160000	180000
General Transfer & Recovery <sup>7</sup>	-			
<b>Total</b>	<b>180,840</b>	<b>210,000</b>	<b>379,000</b>	<b>460,000</b>
<b>Shortfall at 2007</b>		<b>29,160</b>		<b>81,000</b>

1. Taken from pages 11 – 14 of GCC PO WCS Waste Data Paper
2. Taken from pages 21 – 25 of GCC PO WCS Waste Data Paper – includes 50,000 tpa capacity at Wingmoor Farm IWMPF
3. Not including metal separation
4. Not all operational
5. All composting combined
6. This is 64% recycled from 81000 capacity
7. This will include an element of double counting due to transfer

meeting 2010/11 capacity requirements and including the continued use of the MRF at Wingmoor Farm, is approximately 110,160 tonnes of capacity per annum. Without the continued use of the MRF at Wingmoor Farm, the shortfall would increase further to 160,160 tpa.

5.146 Assuming the capacity at Wingmoor Farm remains available, between 2009/2010 – 2010/2011 this shortfall would therefore equate to an extra 110,160 m<sup>3</sup> of voidspace consumed if that waste is disposed of to landfill in-county. This figure also assumes that all of the identified capacity in Table 9 of the WCS Data Paper is fully operational by 2010/11. It also relies upon the 160,000 tpa of I&C general transfer and recovery capacity being single counted, i.e. it is the actual tonnage recovered. Accordingly, there is therefore an urgent need to maintain existing permitted waste management capacity as well as to bring forward additional capacity. As the MRF has previously been consented at the application site, its future role in helping to meet Regional diversity capacity target is already clearly established. The proposed operations at the MRF would therefore fully accord with the Regional planning objectives that additional waste diversion capacity is required in Gloucestershire to meet Regional targets and to reduce reliance on landfill. The MRF as previously consented should be permitted to continue operations.

5.147 There is also a need to account for the disposal of MSW and I&C wastes pre-RSS targets, i.e. anticipated tonnages of residual MSW and I&C disposal between 2009/2010 – 2010/2011. Based on current trends, this will equate to approximately 600,000 tonnes of MSW and I&C wastes as disposed of through current operations in Gloucestershire (based on data from the EA for 2007 for Gloucestershire – see attached). Cumulatively, relying upon the RSS targets, non-hazardous wastes for disposal between 2009/2010 – 2025/2026 would be expected to comprise:

- 1 years disposal at current rates (based on 2007 data) of 600,000 tonnes of non-hazardous waste between 2009/2010 – 2010/2011
- 1 years shortfall in recovery capacity between 2009/2010 – 2010/2011 equating 110,160 tonnes
- RSS MSW disposal forecasts 2010/2011 – 2019/2020, plus static continuation to 2025/2026, equating 1,500,000 tonnes
- RSS I&C disposal forecasts 2010/2011 – 2019/2020, plus static continuation to 2025/2026, equating between 2,800,000 – 3,000,000 tonnes

This would provide an 'RSS estimate' (adjusted) for the period 2009/2010 – 2025/2026 of between 5,010,160 to

5,210,160 tonnes of non-hazardous wastes (MSW & I&C) for disposal, requiring a maximum void of 5,210,160 m<sup>3</sup>.

### CD&E wastes

5.148 There is no coverage in the RSS for CD&E wastes, despite detailed forecasts and apportionments appearing in early drafts of the Strategy. Consequently, and to ensure that the consideration of waste management requirements based on RSS targets is complete, consideration has been given to the CD&E waste analysis provided in the draft WCS. The draft WCS Data Paper explains at paragraph 115 that some 222,000 tonnes of CD&E waste were landfilled at licensed landfill facilities in Gloucestershire in 2005. These materials would comprise soils, brick, construction rubble, concrete, mixed inert hardcore, and inert fractions from other sources.

5.149 This is in addition to wastes managed at license exempt facilities, for which capacity in the order of 1.25 Mm<sup>3</sup> is identified in Table A1 of the Data Paper. These include the landspreading of suitable soils or other graded materials at identified sites, or as sites where short term storage and / or disposal sites receiving inert materials for stockpiling or site engineering purposes is undertaken. These are not considered further in this ES.

5.150 The 222,000 tonnes of CD&E wastes disposed of to licensed landfill, as reported by GCC, is corroborated by Environment Agency data published for the same year. This data goes on to show that in 2006 the tonnage disposed of CD&E waste disposed of to licensed non-inert landfills had risen to 285,000, before falling in 2007 to 246,000 tonnes.

5.151 GCC highlight in paragraph 209 of the data paper that the four main landfill sites in the County for disposing of non-hazardous waste (MSW, C&I and C&D) are Frampton (now closed), Hempsted, Cory Wingmoor and Grundon Wingmoor. It is therefore anticipated that these tonnages of CD&E waste have been disposed of at these four sites.

5.152 The WCS uses this data to calculate ongoing consumption of voidspace in the County by CD&E wastes. It assumes a continuation of disposal rates based on the 2005 level of 222,000 per annum until 2011/2012, at which point GCC consider that the County should achieve a target that seeks to reduce the quantity of CD&E wastes landfilled by 50% (paragraph 152 of the draft WCS Data Paper).

5.153 On this basis, Gloucestershire must provide capacity to manage (3 years x 222,000) 666,000 tonnes of

CD&E wastes between 2009/2010 – 2001/2012, and a further (14 years x 111,000) 1,554,000 tonnes between 2012/2013 – 2025/2026. This equates to a total of 2,220,000 tonnes of CD&E waste between 2009/2010 – 2025/2026 consuming at a ratio of 1.5t/m<sup>3</sup> approximately 1.5 Mm<sup>3</sup>.

### Combined RSS Disposal Requirements

5.154 Combining the calculations above in respect of non-hazardous and CD&E wastes it is possible to identify an 'RSS Requirement' for landfill capacity in Gloucestershire for the period 2008/2009 – 2025/2026, taking into account important assumptions regarding waste diversion and disposal targets, availability of diversion capacity, and the disposal of CD&E wastes.

5.155 In summary, and based upon the draft RSS, non-hazardous wastes requiring disposal in Gloucestershire will mean a forecast maximum voidspace of 5,210,160 m<sup>3</sup>, whilst CD&E wastes will consume a further 1,500,000 m<sup>3</sup> of voidspace. Combined, a voidspace of 6,710,160 m<sup>3</sup> will be required, based upon regional forecasts.

### County Forecasts

#### Gloucestershire Waste Local Plan

5.156 The Adopted Gloucestershire Waste Local Plan 2002 – 2012 (WLP) (2004) identifies the requirements for future capacity based upon meeting targets as set out in the National Waste Strategy for England and Wales 2000 and other related guidance of the time. Appendix 8 of the WLP sets out in greater detail the year on year approach to meeting these achievements. It makes use of base data for 2000/2001 and historic trend data before this period to develop a number of forecasts of tonnages of waste expected to arise, and subsequent tonnages of those wastes that must be diverted from landfill either through recycling or recovery to meet the prevailing Government targets.

5.157 However, as the forecasts only cover the period to 2012/2013 they can only play a limited role in predicting the ongoing requirements in Gloucestershire for the management and disposal of waste. Therefore, the assessment of County forecasts undertaken in this ES has not relied upon the WLP, concentrating instead on the more up to date data and forecasts contained in the emerging Waste Development Framework.

5.158 In respect of the MRF, the application site lies within the Wingmoor Quarry complex that was identified within the Waste Local Plan as "a local site" (handling less than 50,000 tonnes of waste per annum). In respect of providing for recovery capacity, the WLP contains a number of stated objectives that the provision of the MRF accords with, including:

2. "To make the best use of the waste produced within Gloucestershire through increased re-use and recovery;
7. To minimise adverse environmental impacts resulting from the handling, processing, transport and disposal of waste.
8. To protect public amenity from the adverse impact of waste management and to have regard to the need to protect areas of designated landscape and nature conservation value from inappropriate development.
9. To make the most efficient use of land by re-using appropriate brownfield land, industrial land, quarry voids and existing waste management sites in preference to undesignated green field sites;
10. To minimise the environmental impacts of transporting waste by applying the proximity principle, and encouraging more sustainable means of transport for the re-use, recovery and disposal of waste;"

5.159 The WLP also estimated the requirement for additional capacity to meet the recovery targets set out in Waste Strategy 2000. These estimates are no longer appropriate being superseded by those set out in the 2007 Waste Strategy for England and the RSS that are reflected in the emerging Waste Development Framework documentation.

#### Gloucestershire Waste Development Framework

5.160 GCC published their Preferred Options Waste Core Strategy (draft WCS) for public consultation in January 2008. It was accompanied by a number of supporting Technical Papers, including one on waste data.

5.161 In respect of providing for the recovery of wastes the draft WCS highlights the following:

- The Strategy aligns itself closely with the emerging south west RSS, reflecting emerging requirements for the management of waste and policy directions taken in respect of planning for the management of hazardous wastes.

- Reference is also made to the full permitted void that is available at Wingmoor Quarry and includes this capacity as a large proportion of its waste management resources that is available for use during the Strategy period.
- Further reference is made in the draft WCS Data Paper to the availability of 50,000 tpa of recovery capacity in Tewkesbury (at Wingmoor Farm), identifying this as part of the County's recovery resources currently available.
- There is no policy provision for alternative sites to provide non-hazardous landfill voidspace elsewhere. Instead, reliance is made to use the existing voidspace in Gloucestershire for the duration of the plan period, stated as being adequate to last for the plan period.
- The Strategy is supported by a Data Paper that outlines the approach expected to be taken towards identifying and proposing site allocations to meet the waste management needs of the County

5.162 In particular, the draft WCS Data Paper goes on to explain the forecast capacity requirements and shortfalls in respect of diverting waste from landfill, as previously explained above in Table 5.5. As can be seen in Table 5.5, even by 2007 Gloucestershire was facing a significant shortfall in non-hazardous waste diversion capacity, assuming that existing calculations by GCC do not include the previously permitted MRF at Wingmoor Farm within the capacity currently available to the County.

5.163 If this is the case, then failure to grant consent for this element of the proposed development will further increase the existing shortfall. With an immediate and increasing requirement for addition municipal waste composting and recycling capacity and a larger requirement for the composting and recycling of Commercial and Industrial waste such a position would not be either sustainable or acceptable. Hence there is an urgent need to maintain existing permitted waste management capacity and to bring forward additional capacity. Furthermore, the facility has already been constructed and is available to immediately begin diverting waste from landfill.

5.164 In respect of disposal capacity, Table 3 of the draft WCS identifies that, at 2006/2007, landfill capacity in the County stood at 8.9 Mm<sup>3</sup> of voidspace for biodegradable / non-hazardous landfill.

5.165 Paragraphs 105 – 108 of the draft WCS set out the strategy proposed for ongoing waste disposal in the County, categorising landfill as being either for non-hazardous biodegradable wastes; inert wastes or hazardous wastes. In particular, paragraph 105 explains that “*Annually in Gloucestershire around 500kt of non-hazardous biodegradable waste and 220kt of inert material are landfilled at licensed sites. At current rates the licensed non-hazardous biodegradable voidspace would last around 10 years.*”

5.166 Although only 10 years of capacity is identified should current rates of disposal prevail, paragraph 107 of the draft WCS explains that “*The strategy of the County Council, following national and regional policy, is to reduce these current rates [of disposal to landfill] and thereby husband the existing voidspace. If this strategy is successful then the currently permitted voidspace could last until 2019/20 or beyond*”. As highlighted above, those voidspace resources that allow GCC to adopt this strategy include an assumption that the permitted voidspace at the application site will remain available at currently permitted rates. Otherwise, further additional voidspace would be required.

5.167 By adopting the strategy identified above the GCC in their draft WCS have taken the decision not to draft a policy that would enable consideration of new alternative landfill capacity through planning applications. Although a draft, it is an indication that the council seeks to rely upon existing permitted and known voidspace reserves to meet their identified landfill requirements.

5.168 Section 8 of the draft WCS Data Paper considers landfill capacity in further detail, explaining that there are 4 key sites for the disposal of non hazardous waste, including the application site; Cory Wingmoor West; Cory Hempsted (Gloucester), and Cemex Frampton Landfill. These sites, all located in the Severn Vale, play a key role in GCCs strategy and provide a combined voidspace of around 8.9 Mm<sup>3</sup> as at February 2007 (based on detailed data from the Environment Agency) (paragraph 211). In particular, paragraph 212 makes the following points:

- “*Frampton (nr Stroud) has very limited permitted capacity remaining and is due to close soon (around 2008)(A site visit undertaken to Frampton in September 2008 confirmed that the site was being capped and prepared for final after use).*”
- “*Hempsted, under its current permission, is likely to be completed within the next 8 years.*”
- “*Wingmoor Farm East has a time limited planning permission to 2009 (although there is significant*

*remaining voidspace and the operator proposes to submit an application to extend the planning consents for operations to continue to 2034 – Grundon's Scoping Report December 2006).*”

5.169 Section 8 of the Data Paper also draws together data analysis undertaken elsewhere in the Data Paper to provide a consideration of future landfill requirements for Gloucestershire. It pays due regard to the targets identified in the draft RSS and considers these alongside the requirements of the Landfill Allowance Trading Scheme, targets for C&I waste diversion and data for remaining landfill sites to develop estimates of required voidspace needed for the draft WCS plan period between 2007 to 2020, as identified at paragraph 225 of the Data Paper:

“*Inputs if meeting targets (up to 2020)*  
MSW: 3,101kt (based on Table 7 calendar years)  
C&I: 2,193kt  
C&D: 1,887kt (1,258,000m<sup>3</sup>)

*Total = 7,181kt (6,552,000m<sup>3</sup>)*

*Current annual inputs (x 14 years)*  
MSW: 215kt x 14 = 3,010kt  
C&I: 267kt x 14 = 3,738kt  
C&D: 222kt x 14 = 3,108kt (2,072,000m<sup>3</sup>)

*Total = 9,856kt (8,820,000m<sup>3</sup>)*

The voidspace range is therefore between:  
**7,181kt and 9,856kt**  
(6,552,000m<sup>3</sup>) (8,820,000m<sup>3</sup>)”

5.170 Therefore, if targets for waste diversion are met, a total of 6,552,000 m<sup>3</sup> of non-hazardous voidspace are forecast as being required between 2007 – 2020. Paragraph 226 goes on to conclude that the identified voidspace at the four sites identified would be expected to last between 12.8 and 17.5 years based upon the ranges set out above. It is important to note that these ranges assume the ongoing use of the voidspace at the Application Site.

5.171 However, as the figure of 6,552,000 m<sup>3</sup> starts in 2007 and ends in 2020 it needs to be adjusted to ensure it can be contrasted with other calculations in this ES. Assuming 2007 equates to year end 2006/2007, the figure first needs to be adjusted to remove the effect of the period 2006/2007 – 2008/2009 not included in the RSS analysis above.

5.172 This has been done by considering the EA returns data for the period 2007 and applying this to the years 2007/2008 and 2008/2009. For 2007 (taken as being 2006/2007), the EA reported that 600,000 tonnes of MSW and I&C wastes were landfilled at non-inert (non-hazardous) landfill sites in Gloucestershire. This equates to 600,000 cubic metres of voidspace for that year. Over the two year period of adjustment this would total 1,200,000 m<sup>3</sup>.

5.173 In the same year, 246,000 tonnes of CD&E waste were also landfilled at the same sites, equating 164,000 cubic metres or, over the same two year period, 330,000 m<sup>3</sup> over the two year period of adjustment.

5.174 This identifies an approximate 1,530,000 m<sup>3</sup> of voidspace requirement no longer needed in this calculation. In turn, this reduces GCCs forecast from 2007 – 2020 to 2009/2010 – 2020/2021 and, therefore from 6,552,000 m<sup>3</sup> to a **new requirement of 5,022,000 m<sup>3</sup>**.

5.175 The figure then needs to be further adjusted to account for the period 2021/2022 – 2025/2026 (i.e. 5 years). Table 7 of the Data Paper provides the data that comprises the MSW landfill requirement reported above for 2007 – 2020. It also includes similar forecasts for the period 2021/2022 – 2025/2026, equating to an ongoing requirement to dispose of approximately 975,000 tones of MSW, requiring **975,000 cubic metres of voidspace for disposal**.

5.176 It is unclear in the Data Paper how ongoing I&C waste disposal requirements have been identified. However, given that between 2007 – 2020 (13 years) it is expected in paragraph 225 of the Data Paper that 2,193,000 tonnes of C&I waste will be disposed, equating to 168,000 tonnes per annum on average, this has been taken as the continued disposal tonnage for the period 2021/2022 – 2025/2026. Over the remaining 5 year period, this would equate to 840,000 tonnes of waste to be landfilled consuming **840,000 cubic metres**.

5.177 Finally, having met GCCs 50% reduction target for CD&E wastes to landfill by 2012, it is assumed that the static 110,000 tonnes per annum to landfill would also apply over this final 5 year period, equating an additional 550,000 tonnes or **360,000 cubic metres**.

5.178 In total, and based upon meeting targets identified in the draft WCS and relying upon data reported in the WCS, the following adjusted voidspace requirement is identifiable from the draft WCS for the period 2009/2010 – 2025/2026 in Table 5.6.

**Table 5.6 : Analysis of Gloucestershire’s Non-Hazardous Voidspace Requirements 2009/2010 – 2025/2026 based on WCS Data (adjusted)**

Identified Wastes Requiring Landfill	Capacity Required
MSW, C&I, C&D for period 2009/2010 – 2020/2021 (as per paragraph 5.174)	5,022,000 m <sup>3</sup>
Adjusted MSW requirement for period 2021/2022 – 2025/2026 (as per paragraph 5.175)	975,000 m <sup>3</sup>
Adjusted I&C requirement for period 2021/2022 – 2025/2026 (as per paragraph 5.176)	840,000 m <sup>3</sup>
Adjusted CD&E requirement for period 2021/2022 – 2025/2026 (as per paragraph 5.177)	360,000 m <sup>3</sup>
<b>Combined voidspace requirement for MSW / I&amp;C / CD&amp;E wastes in Gloucestershire 2009/2010 – 2025/2026</b>	<b>7,197,000 m<sup>3</sup></b>

### Capacity Gap

5.179 Having identified the non-hazardous waste disposal ranges based upon emerging regional and local waste forecasting and data and waste management targets, it is necessary to consider the identified role of the application site in the regional and or local strategy for the management of those wastes, and what contribution the application site could make if that contribution continued. Data used to inform the preparation of the draft WCS Waste Data Paper (*Data provided by GCC by e-mail 15th January 2008 outlining indicative landfill capacities and landfill scenarios*) suggests that, at February 2007, the following capacities (rounded to nearest 10,000 tonnes) existed at the 4 main non-hazardous landfill sites in the county:

- Hempsted: 1,530,000 m<sup>3</sup>
- Cory Wingmoor: 3,440,000 m<sup>3</sup>
- Grundon Wingmoor: 3,950,000 m<sup>3</sup>
- Frampton: 70,000 m<sup>3</sup>

5.180 At Autumn 2008 Frampton was in the final stages of restoration. Therefore, the reported non-hazardous and CD&E waste inputs for 2007/2008 (based on EA 2007 data) have been adjusted by 0.07 Mm<sup>3</sup> to account for this and Frampton has been removed from the analysis below. For the period 2008/2009 the returns for 2007 have been applied fully. This means that for the calculation in Table 5.7 the following inputs are assumed:

#### 2007/2008

- (600,000 tonnes of non-hazardous waste @ 1t/m<sup>3</sup> = 600,000 cubic metres) – (70,000 cubic metres consumed at Frampton in its final phase) = 530,000 cubic metres non-hazardous waste inputs disposed of to Hempsted, Cory Wingmoor and Grundon Wingmoor.
- 246,000 tonnes of CD&E inputs @ 1.5t/m<sup>3</sup> = 164,000 cubic metres CD&E waste inputs disposed of to Hempsted, Cory Wingmoor and Grundon Wingmoor.

- total consumption at Hempsted, Cory Wingmoor and Grundon Wingmoor for 2007/2008 = 694,000 cubic metres

#### 2008/2009

- 600,000 tonnes of non-hazardous waste @ t/m<sup>3</sup> = 600,000 cubic metres of non-hazardous waste inputs at Hempsted, Cory Wingmoor and Grundon Wingmoor
- 246,000 tonnes of CD&E inputs @ 1.5t/m<sup>3</sup> = 164,000 cubic metres of CD&E waste inputs at Hempsted, Cory Wingmoor and Grundon Wingmoor
- total consumption for 2008/2009 = 764,000 cubic metres at Hempsted, Cory Wingmoor and Grundon Wingmoor

5.181 Further, in preparing these proposals at Wingmoor Farm as presented in this ES, detailed surveys have shown that remaining net non-hazardous capacity at Grundon’s Wingmoor Farm at August 2008 is 2,945,000 m<sup>3</sup>.

5.182 Recent inputs to Grundons Wingmoor Farm during 2007 have been in the order of 136,000 m<sup>3</sup> per annum, or approximately 11,333 m<sup>3</sup> per month. To relate the application site to the data derived from the draft WCS and represented below in Table 5.7, it is possible to calculate that, at a rate of 11,333 m<sup>3</sup> per month, the voidspace consumed between 1st February 2007 and 1st August 2008 (18 months) would have been approximately 204,000 m<sup>3</sup>.

5.183 Therefore, it is estimated that the available voidspace at Grundons Wingmoor Farm landfill as at February 2007 would have equated to the sum of 204,000 m<sup>3</sup> plus 2,945,000 m<sup>3</sup>, or approximately 3,149,000 m<sup>3</sup> (net after engineering and daily cover). This is a significant 800,000 m<sup>3</sup> less than the estimated 3,950,000 m<sup>3</sup> referenced in the draft WCS.

**Table 5.7 : Estimated Non-Hazardous Voidspace, Gloucestershire, 2008/2009 (m3) (adjusted for recent void survey at Grundons Wingmoor Farm)**

Site	Capacity @ February 2007	2007/2008 inputs (adjusted by 0.7 for Frampton)	2008/2009 inputs (based on EA data for 2007)	Gloucestershire Landfill Capacity@end of 2008/2009
Hempsted	1,530,000	(764,000 m <sup>3</sup> – 70,000 m <sup>3</sup> ) 694,000 m <sup>3</sup>	764,000 m <sup>3</sup>	
Cory Wingmoor	3,440,000			
Grundon Wingmoor	3,149,000			
<b>Total</b>	<b>8,119,000</b>	<b>690,000</b>	<b>760,000</b>	<b>6,669,000</b>

5.184 With this data in mind it is possible to undertake an adjusted estimate of the overall remaining non-hazardous landfill capacity in Gloucestershire at 2008/2009, as shown in Table 5.7.

5.185 Based on Table 5.7, it is estimated that a combined non-hazardous landfill capacity of approximately 6,669,000 m<sup>3</sup> remained in Gloucestershire as at the end of 2008/2009.

5.186 When applied to the landfill capacity requirements identified in paragraph 5.155 and Table 5.6 of between 6,710,160 and 7,197,000 m<sup>3</sup> of non-hazardous voidspace between 2009/2010 and 2025/2026 this equates to a shortfall in capacity of between 41,160 m<sup>3</sup> based upon the forecasts in the draft RSS and up to 528,000 m<sup>3</sup> based on interpretations of the draft WCS.

5.187 On the basis that such a shortfall would exist at 2025/2026, it is fair to assume that, in the absence of any other known landfill capacity proposals, that shortfall would extend over the final years of life of the application site to 2029/2030.

5.188 The application site clearly has a central and essential role in assisting in the management of residual non-hazardous wastes over both the RSS Plan Period to 2025/2026, and beyond to 2029/2030. However, it is also clear that additional capacity will need to be planned for beyond that proposed to be provided through this development if Gloucestershire is to continue to meet its requirements for the diversion and disposal of non-hazardous wastes.

5.189 The application site can only make provision for the proportion of wastes that it has been prepared for, assessed against and concluded as being acceptable for receiving. The continued capacity proposed for disposal is not expected to be only response made in Gloucestershire to the need for the safe disposal of non-hazardous wastes both over the period to 2026 and through to the end of the site’s life at 2030.

## THE NEED FOR HAZARDOUS WASTE DISPOSAL AND RECOVERY CAPACITY

### National Policy

5.190 Compared with non-hazardous waste, there is less planning policy and guidance at the national level to inform the management of hazardous wastes. The Waste Strategy for England 2007 does make clear the Government’s wish to see a reduction in the production of hazardous wastes, but it does not set targets or drivers. Similarly, PPS10 makes only brief reference to the need to carefully consider the provision and location of hazardous waste management facilities, rather than specifying how such management should be delivered.

### Regional Policy

5.191 At the regional level, the only policy and / or strategy coverage provided on the issue of hazardous waste management is found in Chapter 7 of the emerging South West Regional Spatial Strategy. Although only briefly addressed, draft RSS does provide a clear explanation of the hazardous waste market in the south west region. Paragraph 7.4.10 of RSS states:

*“The market for hazardous waste disposal at sites established for that purpose is now a highly specialised activity that operates in a market of at least regional and more probably national scale. The region is broadly self-sufficient in hazardous waste treatment capacity and has facilities for the transfer, treatment and recycling of hazardous wastes. The regional Technical Advisory Body (RTAB) estimates that the region will require an annual disposal capacity of about 40,000 tonnes for Stable Non-Reactive Hazardous Wastes (with special cells already provided at general landfill sites) and in the range of 65,000 to 80,000 tonnes per annum of general hazardous waste for which specific provision needs to be made.”*

5.192 Paragraph 7.4.11 goes on: *“The specialist nature of hazardous waste landfill may restrict the type of waste inputs,*

but the region should also seek to make a contribution to the national need in line with its own regional requirements. Existing sites being located on the region's eastern boundary and close to the primary road network are well positioned to serve the regional and the wider national market for hazardous waste disposal. Existing sites should be safeguarded with proposals for extension considered within the context of the region's contribution to wider national needs and the proposal's local environmental impact."

5.193 Policy W3 of the RSS requires that: "Waste Planning Authorities should recognise the need for the disposal of Stable Non-Reactive Hazardous Wastes at existing or proposed new landfill facilities (identified in (RSS) Policy W1) and safeguard capacity for the disposal of other hazardous wastes at existing sites permitted and authorised as hazardous waste landfill sites provided they are environmentally acceptable. Provision should also be made in Waste LDFs for hazardous waste transfer, treatment and disposal facilities."

5.194 Thus emerging RSS makes it clear that the south west region is required to make provision for the ongoing management of its general and stable non-reactive hazardous wastes. It also explains that, where environmentally acceptable to do so, provision for that requirement should be made through the safeguarding of existing permitted and authorised landfill sites.

5.195 It is also clear that in making provision for the above disposal requirement Waste Planning Authorities should consider that in making capacity available where opportunities exist, the region will consequently be making a contribution to national need through providing for its own requirements.

### Regional Need Analysis

5.196 Paragraph 7.4.10 of the draft RSS makes reference to estimates made by the South West RTAB as part of the identification of the hazardous waste disposal needs of the region. These estimates are based upon a detailed capacity report prepared for the RTAB by the Environment Agency in September 2005. (*South West Hazardous Waste Treatment and Capacity Report 2005: A Technical Paper Prepared by the South West RTAB to Inform Regional Spatial Planning Policy for Hazardous Waste, September 2005 (Final Report) (Environment Agency)*)

5.197 The RTAB report itself was produced to address the increasing national and regional need to assess and model special / hazardous wastes following the implementation of the landfill regulations and the hazardous wastes regulations (*The Hazardous Waste Regulations are currently undergoing incorporation within the amended Waste Framework Directive*) in the UK.

Paragraph 1.2 of the report explains: "The immediate impact of both of these directives has been two-fold. It has reduced traditional landfill disposal routes both in capacity and site number terms, a situation potentially compounded by an increase in total hazardous waste arisings as a result of aligning the definition (of hazardous waste) with existing EU Directives."

5.198 The detailed analysis of the report begins with a consideration of existing treatment and disposal capacities for hazardous wastes generated in the region. As reflected in paragraph 7.4.10 of the RSS paragraph 2.3 of the report explains that "the region is sufficiently well served across the broad range of hazardous waste treatment options". It goes on to state that "On average the region exports about half of all treated waste to other regions. This shouldn't be seen as unusual. Hazardous wastes by the variability of their properties require specialist technology to recover that is often only commercially viable at the national level".

5.199 The analysis goes on to explain in paragraphs 3.1 and 3.2 and Figure 2 that the region is also well provided for in respect of disposal capacity for stable non-reactive hazardous wastes such as mineral and bonded asbestos, a trend that is also reflected in total annual capacity terms for general hazardous wastes. However, paragraph 3.3 cautions that that this capacity is provided by only two facilities, both in the east of the region: Grundon Wingmoor Farm (which, based on recent surveys currently has 1,242,000 m<sup>3</sup> capacity remaining) and Parkgate Farm, Purton, Wiltshire operated by Hills (which, when consented in 2006 had 350,000 m<sup>3</sup> of capacity). In particular, it is noted that the planning status of the application site is temporary and a new permission would be required to secure ongoing capacity provision.

5.200 Paragraph 3.5 of the report recognises that "Hazardous waste disposal at landfill is now a highly specialised activity and operators have had to make commercial decisions on the status of their landfill operations. The fixed costs such as, site engineering and site management procedures, for hazardous waste landfills have increased significantly and now form the majority of disposal cost. A such other variable costs, particularly the transport element, are less significant in commercial decisions by (hazardous) waste producers."

5.201 Paragraph 3.6 explains that "The current pattern of hazardous landfill sites is a clear reflection of the considered approach of the waste management industry on the commercial viability of the market for hazardous waste landfill. The contraction in the number of sites and their geographic distribution should be seen as de facto evidence that the market for hazardous waste landfill is now at least national and at best regional."

5.202 When this report was produced, the number of hazardous waste landfills had fallen nationally to less than 10 for the management of hazardous waste produced in England, Wales, Scotland and Northern Ireland. Even at the time of this submission, actively operating hazardous waste landfill sites had only risen to 14 to service the hazardous waste disposal requirements of the UK. All of these sites are located in England.

5.203 Paragraph 3.7 the report considers that "This new market for general hazardous waste disposal is seen in the south west by the waste industry's decision to develop sites at the eastern periphery and within the M5 / M4 corridor and not in the peninsular region. A site located close to the primary road network and other regions can far more easily draw on a sub national or national market for hazardous waste disposal than one located in the regions peninsular."

5.204 Section 4 of the report provides a discussion of the hazardous waste landfill capacity requirements potentially required between 2005 and 2020, concentrating upon the two main hazardous waste streams disposed of in the south west: wastes from the development of contaminated land and hazardous waste residues from thermal treatment options.

5.205 Paragraph 4.2 considers the disposal requirements of contaminated soils and explains that "At least 80% of the required annual disposal capacity is needed for these wastes either directly deposited in landfills or disposed after treatment. Further the assumed primary treatment technology, stabilisation and solidification, is almost wholly required to treat these contaminated wastes. While other wastes traditionally landfilled may be directed away from landfill to other treatment options such as co-incineration hazardous soils have little other value and if still contaminated after any treatment process applied will need to be landfilled for permanent storage."

5.206 Paragraph 4.3 states that this situation is compounded when the primary treatment option for contaminated soils outlined above is considered further as it "requires the addition of other materials, such as cement, to bind and immobilise contaminants. The addition of other materials during stabilisation and solidification is estimated to double the final weight of waste requiring final disposal."

5.207 At present, there is only one thermal treatment facility in operation in the south west, located on the Isles of Scilly and managing approximately 3500 tonnes of waste per annum, and only likely to generate approximately 100 tonnes of APC residues each year. However, planning consent has been granted for the development of a 60,000 tpa thermal treatment plant in

Exeter by Viridor, which, at a ratio of 3.5% of total inputs will generate approximately 2100 tonnes of APC per annum.

5.208 The report suggests that hazardous waste arisings in the south west between 1999 – 2003 seemed to be stable at around 300,000 tpa (paragraph 5.1). Data for 2006 suggests this had risen to 345,000 tpa, whilst in 2007 the figure stood at 402,000 tpa. In 2004, EA data shows hazardous waste production stood at 443,000 tpa. Data for 2005 has been discarded by the EA due to concerns over its reliability. Table 5.8 provides an update to average annual arisings of hazardous waste in the south west region.

**Table 5.8 : Hazardous Waste Production South West 1999 – 2007**

Year	Hazardous waste produced (tonnes)
1999	299898
2000	313373
2001	310672
2002	279798
2003	271126
2004	443458
2005	- *
2006	345580
2007	402014
<b>Average of years (not including 2005)</b>	<b>333,240 tpa (average)</b>

Source: EA Hazardous waste data update 2007

\* Data for the year 2005 considered by EA to be unreliable for that year due to transposition of hazardous waste reclassification into waste stream and management sites

5.209 It can be seen that the estimate prepared in 2005 by the EA and RTAB of 300,000 tpa of hazardous waste produced each year in the south west (paragraph 5.1) appears to be reasonable, albeit potentially conservative. Recent trends between 2004 – 2007 show higher than estimated average levels being produced in the region which, when combined with previous trends, do increase the overall average by approximately 11%. However, future years may also fluctuate. It is therefore reasonable to conclude that the level of arisings should be taken as a reliable minimum estimate to inform hazardous waste management requirements for the south west region.

5.210 The management of these wastes will utilise the existing sufficient treatment and transfer capacity for existing hazardous waste streams (paragraph 5.4) and, for as long as planning consent is in place, the existing

hazardous landfill voidspace that is available in the region, including at the application site and the Purton site.

5.211 Considering the requirement for landfill capacity for south west region hazardous wastes the draft RSS forecasts that such requirements will fall between the range of 65,000 – 80,000 tpa of general hazardous wastes for disposal. Added to this is the RSS requirement to dispose to landfill of 40,000 tonnes of Stable Non Reactive Hazardous Waste (e.g. asbestos) per annum, which leaves a total south west produced hazardous waste disposal requirement of between 105,000 tonnes and 120,000 tonnes per annum. These figures are waste produced in the region for disposal, and therefore do not take any account of flows out of or into the region.

5.212 Hazardous waste voidspace at Wingmoor Farm IWMF is in the region of 1,242,000 m<sup>3</sup> (as at 31st March 2009)(Hazardous waste void survey for Wingmoor Farm at 1st August 2008 = 1,287,000 m<sup>3</sup>. Consumption of hazardous voidspace between 1st August 2008 – 31st April 2009 = approximately 45,000m<sup>3</sup>. Hazardous void at Wingmoor Farm at 31st March 2009 = (1,287,000 – 45,000) 1,242,000 m<sup>3</sup>.). This then needs to be combined with the voidspace at Purton, Wiltshire, to provide a more accurate indication of the up to date regional hazardous waste landfill resource. With a maximum void at the Purton site of 350,000 m<sup>3</sup> as at 2006, and allowing for consumption of approximately 50,000 m<sup>3</sup> (equating to approximately 90,000 tonnes) in 2006 and 2007 (as per Table 5.9), it is anticipated that the remaining void for hazardous wastes at the Wiltshire site is now in the region of 300,000 m<sup>3</sup>.

5.213 In turn, this can be added to an anticipated remaining voidspace at Southwood Landfill in Shepton Mallet in Somerset for the disposal of Stable Non Reactive Hazardous Wastes (asbestos only) of 20,000 m<sup>3</sup> which, when combined with the remaining hazardous waste voidspace at the application site, this provides a maximum voidspace for hazardous wastes in the region

of approximately 1,562,000 m<sup>3</sup>. The application site would therefore provide for approximately 80% of the regions hazardous waste disposal capacity.

5.214 The disposal of between 105,000 tpa and 120,000 tpa of hazardous wastes will, at a conservative emplacement ratio of 1.5t : 1 m<sup>3</sup> (Operational practice at Wingmoor Farm shows that for contaminated soils and asbestos wastes alone the emplacement density is 1.5t : 1 m<sup>3</sup>. When the disposal of other hazardous wastes landfilled at Wingmoor Farm is considered the overall emplacement density ratio is 0.91t : 1 m<sup>3</sup>) requires between 70,000 m<sup>3</sup> and 80,000 m<sup>3</sup> each year.

5.215 Between 2009/2010 and 2026/2027, a period of 18 years covering the draft RSS period and the full operational period of the application site for hazardous waste disposal, this will equate to between 1,260,000 m<sup>3</sup> and 1,440,000 m<sup>3</sup> of hazardous waste produced in the south west for disposal.

5.216 This consumption of the total voidspace in the region would leave a 'surplus' of between 122,000 m<sup>3</sup> – 302,000 m<sup>3</sup> at 2026/2027.

5.217 However, and as shown by data and analysis below, the provision of capacity for the needs of the south west region will also need to make provision for inter regional movements of hazardous waste. Therefore, where a 'surplus' in capacity is identified, it is the case that this is a minimum capacity requirement and, over time, it is expected that the existing capacity in the region will not be sufficient alone.

5.218 This need to recognise the inter regional value of the application site is recognised in the RTAB report at paragraph 5.2: "Existing hazardous waste landfills located on regional boundary are utilised by wastes from other regions and as such represent a national and regional resource."

**Table 5.9: Hazardous waste trends Gloucestershire and Wiltshire 2006 & 2007 (tonnes)**

Trend	Gloucestershire		Wiltshire	
	2006	2007	2006	2007
Amount produced and managed in area	35414	39672	8029	10315
Amount produced in and exported from area	19239	18488	15908	18654
Imported into area from other SW authorities	10877	10555	15757	18147
<i>Total SW Hazardous waste managed in area</i>	<i>46291</i>	<i>50227</i>	<i>23786</i>	<i>28462</i>
Imported into area from non-SW sources	66118	49580	28510	36817
<b>Total Managed in Area</b>	<b>112409</b>	<b>99807</b>	<b>52296</b>	<b>65279</b>
<i>Amount of total managed by landfill</i>	<i>84101</i>	<i>64964</i>	<i>38300</i>	<i>50962</i>
Amount of total managed by non-landfill	28309	34842	13995	14316

Source: EA Hazardous Waste Data Published in 2008 for 2006 and 2007

5.219 This is reflected in recent trend data provided by the EA for 2006 and 2007 and shown below in Table 5.9. this shows that *the pressure for the hazardous disposal capacity in the south west does not come from south west produced waste alone, particularly as there are no equivalent sites in the south east or England or throughout Wales, which both export hazardous waste to the south west for disposal, as shown in Table 5.10.*

5.220 This inter-regional relationship is clear from these tables, which show that whilst the application site continues to play an important role in managing wastes from the south west region, it also has an important role in managing wastes from surrounding regions, including the neighbouring south east and London, Wales and from the West Midlands immediately to the north. Given the site's location in proximity to the M5 and accessible from the M4, it is unsurprising that the significant majority of the site's catchment area is made up of regions that immediately border Gloucestershire and the south west.

5.221 Table 5.9 shows that, in 2006 122,401 tonnes of hazardous waste were landfilled in Wiltshire and Gloucestershire, followed by 115,926 tonnes in 2007. It is also known from EA data published in 2008 that the overall totals for hazardous waste landfilled in the south west Region stood at 136,283 tonnes in 2006 and 133,247 tonnes in 2007.

5.222 As an average for the two years these totals equate to approximately 134,765 tonnes per annum disposed of in hazardous landfills in the south west (i.e. Wingmoor, Purton and Shepton Mallet). At a density ratio of 1.5t : 1 m<sup>3</sup> this rate of disposal will consume approximately 89,000 m<sup>3</sup> of voidspace. Over an 18 year period, and assuming no change in the level of input, (e.g.

no growth or reduction) this would require the provision of 1,602,000 m<sup>3</sup> of voidspace alone: the region's capacity stands at approximately 1,562,000 m<sup>3</sup>.

5.223 However, not only do these calculations not make any provision for increases in the amounts of hazardous wastes being produced in and exported to the south west region for landfilling, they also do not yet make provision for the full quantity of hazardous waste produced in the south west that is forecast in the draft RSS to require disposal in the south west.

5.224 As with the analysis for the draft RSS requirements, it is clear that the ongoing requirement to serve inter regional needs is a minimum that will be supplemented by the growing needs of the south west region. Therefore, where a 'shortfall' of approximately 40,000 m<sup>3</sup> in capacity is identified above, it is the case that this is a minimum capacity shortfall and additional capacity is likely to be required in the south west region.

5.225 For example, it is estimated that the Viridor run Grace Road EfW facility in Exeter, anticipated to be operational in 2012, will incinerate 60,000 tpa of non-hazardous waste producing 2,100 tonnes of APC per annum. If these wastes are disposed of using the bonded process, then, from 2012/2013 through to 2026/2027 (a period of 14 years) 29,400 tonnes of APC will need to be mixed with 36,000 tonnes of liquid waste creating approximately 65,000 tonnes of bonded waste requiring 50,000 cubic metres of voidspace.

5.226 Although the status of other local planning authorities, including Gloucestershire, is currently unclear in terms of the principle solutions to be employed to manage non-hazardous waste arisings (including

**Table 5.10 : Hazardous Waste Weighbridge Inputs to Wingmoor Farm IWMF 2007 (tonnes)**

Waste	Source						Total
	South West	South East & London	Wales	West Midlands	Other England	Scotland	
Air Pollution Control Residues	0	22102 (86%)	0	0	2570 (10%)	1028 (4%)	25,700
Liquid Wastes	0	1176 (84%)	0	182 (13%)	42 (3%)	0	1,400
General Hazardous Wastes	12915 (45%)	2296 (8%)	8036 (28%)	3444 (12%)	2009 (7%)	0	28,700
Asbestos	1176 (28%)	252 (6%)	1680 (40%)	756 (18%)	336 (8%)	0	4,200
<b>Total</b>	<b>14,091 (24%)</b>	<b>25,826 (43%)</b>	<b>9,716 (16%)</b>	<b>4,382 (7%)</b>	<b>4,957 (8%)</b>	<b>1,028 (2%)</b>	<b>60,000</b>

Source: Grundons. 'Other England' comprises East of England and North West Regions.

municipal, commercial and industrial wastes) in their areas, where such methods generate hazardous waste by products that may only be safely be managed through disposal, provision for appropriate capacity will need to be made. In the case of the Exeter facility, or any potential future facilities elsewhere, regard will also need to be had to the principle of managing waste at the nearest appropriate installation for that waste stream.

5.227 These considerations will also apply in the case of the proposals by SITA UK Ltd for the construction of a 240,000 tpa EfW facility at St Dennis, central Cornwall. These proposals, recently refused by Cornwall County Council, are due to be considered through an appeal by SITA UK Ltd at a public inquiry into the refusal of planning consent. Should the outcome of this appeal be to permit the development then this facility will also generate APC residues for management, at a rate four times greater than the Grace Road facility in Devon and requiring approximately 200,000 cubic metres of voidspace if the bonding process outlined above were to be used.

5.228 Notwithstanding the above analyses, the continued rate of disposal of hazardous wastes at the application site, based upon existing contracts, historic trends and market availability of waste, has been identified as being up to 62,764 tonnes per annum. As outlined above, on site practices that see different hazardous wastes disposed of on site mean that the emplacement density achieved at Wingmoor Farm is 0.91t : 1 m<sup>3</sup>.

5.229 This in particular reflects the need for disposing of APC wastes through the hazardous waste treatment plant where it is mixed with liquid wastes and leachate to create a bonded material. That bonded material has a clear impact upon the emplacement densities achieved when disposed alongside other hazardous wastes such as contaminated soils and asbestos.

5.230 On this basis 62,764 tonnes of hazardous wastes received each year at the application site will require 68,971 m<sup>3</sup> of voidspace each year. The remaining hazardous voidspace on site equates to 1,242,000 m<sup>3</sup> at 31st March 2009, which, at this rate of consumption each year, will be consumed within 18 years or by 31st March 2027.

5.231 Consequently, the application site will be able to make a significant contribution to the identified hazardous waste disposal needs of the south west region, and surrounding regions in accordance with regional policy and guidance. However, it is not expected that the application site, or the remaining capacity in the south

west region will be able to meet all of those needs, as their capacities will be exhausted through identified inputs.

### Local – Adopted Gloucestershire Waste Local Plan

5.232 The only documents to include forecasts of hazardous waste requirements are the Adopted WLP and the draft RSS. However, the Adopted WLP only seeks to identify an ongoing disposal requirement in Gloucestershire for ‘Special’ wastes, which were reclassified as hazardous wastes, based upon the most recent disposal returns at the time of publication.

5.233 Policy 16 ‘Special Waste Facilities’ of the WLP sets out the approach to be taken to the provision of ‘special’ waste facilities in the County and remains in force as a ‘saved’ policy. In particular, it explains that additional special waste disposal facilities will be permitted where they would form part of a sustainable waste management system and meet the provisions of relevant development plan policies.

5.234 It is clear from the analysis above, the continued operation of the hazardous waste facility at the application site will play a central role in the management of hazardous wastes in the south west Region, and the County, contributing significantly to identified hazardous waste forecasts and, as demonstrated in this ES, capable of being operated in an environmentally acceptable manner.

5.235 Appendix 8 of the WLP identifies that in 2000/2001 37,955 tonnes of special wastes were disposed of to landfill in the County. This figure is then included in the calculation of total waste disposed of to landfill in Gloucestershire for that year which, in turn, is divided into the remaining landfill voidspace in the County at 2001 to identify an estimated lifespan of void, in this case 17.5 years or 2019. This approach assumes that inputs as at 2000/2001 would continue throughout the life of the WLP and therefore would be sufficient for the WLP period to 2012.

5.236 As explained earlier in this Chapter, the amount of waste produced in the south west Region since 2001 has fluctuated, with current assumptions by the south west RTAB identifying that a conservative estimate of 300,000 tpa of such waste arising in the Region should be planned for, similar to 310,000 tonnes that was produced in 2001 (Table 5.8). In terms of the amount disposed of in Gloucestershire, this has clearly increased since the inputs recorded in 2001, as shown by Table 5.9 and 5.10.

### Local – Emerging Gloucestershire Waste Development Framework

5.237 Reflecting the absence of key targets at the national level for local authorities to manage hazardous wastes, Paragraph 42 of the draft Gloucestershire Waste Core Strategy (WCS) (January 2008) explains that “*The key issue for the WCS is to set an appropriate framework for determining the ‘environmental acceptability’ of existing sites in accordance with Regional Spatial Strategy draft policy W3*”. The WCS recognises that the capacity that is currently provided in Gloucestershire for hazardous waste disposal is located at one site, Wingmoor Farm, and highlights the requirement in draft RSS policy W3 to safeguard hazardous waste landfill capacity where it is environmentally acceptable.

5.238 Paragraphs 172 – 181 of the Waste Data Paper set out the context for hazardous waste management in Gloucestershire for the period 2000 – 2004, with 2004 data being the most recent data available at the time of publishing the draft WCS. Although this provides useful trend based data for that period it has now been supplemented by more recent data for 2006 and 2007, which has been examined earlier in this section in respect of Tables 5.9 and 5.10.

5.239 The key trends reported in Table 14 of the Waste Data Paper show that hazardous waste arisings for the period fluctuated between 25,000 tonnes per annum and 53,000 tonnes per annum, with the average for the period being 36,000 tonnes per annum. This is not dissimilar to trends reported in Table 5.9, which show hazardous waste arisings in the County as being 35,000 – 40,000 tpa.

5.240 Table 15 of the Waste Data Paper shows that between 2002 and 2004 the quantity of hazardous waste managed in the County rose from 42,000 tonnes to 72,000 tonnes, once imports and exports of hazardous waste had been balanced against the amount produced and managed in-County. Within these figures, landfilling represented a comparatively low tonnage when contrasted with more recent data for 2006 and 2007 as shown in Table 5.9, although paragraph 176 of the paper does report that landfill deposits into Wingmoor Farm for 2006 were in the region of 83,000 tonnes for that year, consistent with data presented in Table 5.9.

5.241 Paragraphs 177 and 178 correctly identify that of the hazardous waste tonnage disposed to landfill in 2006 a proportion constitutes the net effect of the bonding process for the disposal of the APC residues with liquid wastes. In addressing the differences between trends up to 2004 and trends thereafter, paragraph 179 also suggests

that this is largely due to changes in legislation nationally affecting the classification of the range of materials considered to be hazardous.

5.242 This is also considered by the EA to be the key reason as to why data for 2005 is not reliable. As changes to the classification of hazardous wastes crossed-over between 2004 and 2006 this led to an unusual influx in the disposal of various hazardous wastes and waste previously classed as non-hazardous wastes and due to be classified as hazardous. This created a temporary anomaly to the data recorded for hazardous waste movements and deposits, partly as waste producers sought to maximise disposal and treatment under the previous regime as much as possible prior to changes to the legislation taking effect.

5.243 Paragraph 179 goes on to correctly explain that, since the changes to legislation over this period, “*The acceptance of contaminations for waste since the has become more stringent. The hazardous waste being accepted is no primarily contaminated soils or similar which are heavier and have therefore increased tonnage levels.*” Referring back to Table 5.10 this can be seen with 55% of deposits in 2007 at Wingmoor Farm being made up of general hazardous wastes and asbestos.

5.244 Paragraphs 182 – 186 of the Waste Data Paper then go on to identify the market conditions that hazardous waste management is generally recognised to operate within, recognising in paragraph 182 that “*The situation in Gloucestershire is that hazardous waste material is both imported into and exported out of the County.*” Paragraph 183 explains that key recipients of Gloucestershire hazardous waste exports are Wiltshire (south west), Warwickshire and Dudley (west midlands) (all contaminated C&D wastes/asbestos); Bristol (south west), Worcestershire (west midlands) and Sefton (north west) (all waste oils), and unknown recipients for hazardous metals and plastics.

5.245 Imports into Gloucestershire in 2004 are identified as being sourced from the south west (23%); London and the South East (42%); West Midlands and Wales (27%); North West (4%), and 4% from unspecified areas. These trends are broadly similar in split to the imports of hazardous waste received for disposal at Wingmoor Farm identified in Table 5.11.

5.246 The Waste Data Paper concludes, on this matter, that “*...it appears certain categories of hazardous waste are being swapped between WPA areas and regions...*” reflecting the fact that “*This is a market driven activity and even the presence of suitable sites within an area does not ensure that*

material derived from a given location will necessarily be managed in that area. This is a matter of choice for the waste producer and who they employ to manage their waste.” (paragraphs 185 and 186).

5.247 Broadly speaking, it is considered that the data reported by GCC in its Waste Data Paper is an accurate and relative representation of hazardous waste management trends in the County that is consistent with similar data reported through EA data for 2006 and 2007 in Table 5.9 and trends experienced at Wingmoor Farm as shown in Table 5.10.

5.248 It is therefore considered that the needs analysis provided in this section represents a comprehensive and robust forecast of hazardous waste trends and requirements in the south west region and Gloucestershire that is in conformity with the RSS, the SWRTAB analysis, and GCC’s hazardous waste data analysis for the WCS.

### Environmental Acceptability

5.249 The draft RSS, and the emerging draft WCS, identify the need to consider the environmental acceptability of any proposals for hazardous waste disposal capacity. In particular, the following statement in WCS Technical Paper M: Environmental Acceptability provides a concise, locally applicable indication of how this issue is of importance:

“61. The current hazardous waste landfill facility in Gloucestershire has all the relevant PPC permits and waste management licenses issued by the Statutory Waste Regulation Authority – the Environment Agency (EA) and is in compliance with them. If this were not the case the facility would not legally be able to operate.

62. The facility also has planning permission from the County Council as Waste Planning Authority. Both the regulation and planning elements are backed up by monitoring and enforcement procedures. Once permitted the continued operation of a particular site is a matter that is closely regulated by District Environmental Health and the WPA, to ensure that conditions attached to the planning permission are adhered to, and the Environment Agency under licensing arrangements. The EA track movements of hazardous waste and monitor sites to ensure their ability to receive specialised hazardous waste and operate to a high standard whilst minimising harm to the environment.

63. if the site has the relevant planning permissions and if the EA as the Waste regulation Authority considers that the site are abiding by their PPC permit and evidence for this is

provided through regular and effective monitoring, then it has to be assumed that the site, as currently operating is ‘environmentally acceptable’.

64. Wingmoor Farm is subject to monitoring by the County Council (Planning Enforcement & Monitoring), Tewkesbury BC (Environmental Health) and the Environment Agency. There has been no formal planning enforcement action taken against the operators of the hazardous waste landfill site.”

5.250 It is not intended in this chapter to address detailed conclusions that demonstrate that the proposed development would be environmentally acceptable, this is more appropriately achieved by reference to the relevant chapters of the ES itself, and the reasoned justification provided in the accompanying planning supporting statement.

5.251 Nonetheless, and given the conclusions reached elsewhere in this ES, it is clear that the proposed development, incorporating mitigation where necessary, would not lead to the introduction of any significant adverse environmental effects through any of its associated impacts upon the receiving environment. In addition, as the site and its hazardous waste management operations are currently carried out in accordance with the existing planning and regulatory consents, it is considered that the existing operations are undertaken in an environmentally acceptable manner.

5.252 Further, if the time limit relating to current planning consents either were not in place or were set at a suitable later date, that these operations would continue to operate in such an environmentally acceptable manner for the remainder of their intended life.

### THE NEED FOR MINERAL EXTRACTION

5.253 Although Wingmoor Farm is now predominantly a waste management facility following the extensive extraction of sand, gravel and clay resources over its 46 year operational history, some mineral extraction activities remain operational.

5.254 In particular, the small remaining sand and gravel reserves on site are proposed to be extracted to complete the realisation of this particular mineral resource, whilst the site’s natural geological resources also allow for the provision of all necessary site engineering materials (i.e. clay) from within the site itself.

5.255 In addition, the clay resources on site are also in demand for a number of off-site applications, which this site, as an operational minerals extraction and waste management facility is ideally positioned to continue servicing throughout the lifetime of the proposed operations.

5.256 The ongoing minerals extraction operations as part of these proposals have therefore been defined as follows:

- Extraction of approximately 40,000 tonnes of remaining sand and gravel reserves as part of voidspace creation and to avoid sterilisation of useable and saleable minerals;
- Extraction of approximately 918,000 cubic metres of overburden and clay for re-use on site as engineering materials and daily cover, and
- Extraction of 432,000 cubic metres of clay for export off-site at a rate of 24,000 cubic metres per annum over 18 years to 2026.

5.257 The need for this extraction and the relevant planning policy framework that supports these operations are identified below. In addition, in respect of clay extraction, further evidence is presented in respect of the market that the application site currently serves and is expected to serve through the lifetime of these proposals.

### Sand and Gravel – Policy and Guidance

5.258 Reflecting the provisions of the Government’s strategy for sustainable development ‘Securing the Future’ Minerals Policy Statement 1 ‘Planning and Minerals’ explains in paragraph 8 minerals planning should endeavour to contribute to the attainment of the following four objectives:

- “An economy that delivers high levels of employment;
- A society that promotes sustainable communities;
- The protection and enhancement of the physical and natural environment; and
- The efficient use of resources and energy.”

5.259 Paragraph 9 further explains that the Government’s objectives for minerals planning reflect the provisions of the Planning and Compulsory Purchase Act 2004. Key objectives applicable to this the continued extraction of sand and gravel at Wingmoor Farm IWFM include:

- “To conserve mineral resources through appropriate domestic provision and timing of supply;

- To safeguard mineral resources as far as possible;
- To secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals;
- To secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, without irreversible damage;
- To maximise the benefits and minimise the impacts of minerals operations over their full life cycle;
- To protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long term potential of land for a wide range of after-uses;
- To encourage the use of high quality materials for the purposes for which they are most suitable.”

5.260 These, and other objectives contained in MPS1, provide detailed guidance to the Regional Planning Bodies and Local Planning Authorities in respect of the approach to be taken to securing the supply of minerals found in their areas, including the development of landbanks of future supply, the approach to be taken to non-mineral alternatives, the protection of the environment, the identification of sites and the safeguarding of minerals.

5.261 Policy RE3 of RPG10 sets out the approach to be taken in identifying sites for mineral extraction, controlling associated environmental and transport impacts and returning sites to beneficial after-use. Policy RE4 addresses the use and supply of aggregates including the identification and safeguarding of sites, the identification and use of alternatives to primary aggregate production and the conservation of and optimum use of high quality primary aggregates.

5.262 Policies RE10, RE11 and RE12 are now proposed in the emerging south west RSS to address minerals planning issues. In particular, policy RE10 advises of the need for planning authorities to make provision towards the south west’s requirement to contribute to national aggregates requirements and to safeguard mineral resources of local, regional and national economic importance from sterilisation.

5.263 Policy RE11 identifies that Gloucestershire must make provision for forecast aggregate demand of 18.18 million tonnes of sand and gravel between 2001 and 2016, at an annual production rate of 1.14 million tonnes. In the wider region the full total is 105.99 million tonnes at an average of 6.62 million tonnes per annum. Forecasts for the period 2016 – 2026 are not yet known.

5.264 Policy RE12 goes on to explain that a further provision should be made in the south west for 121 million tonnes of recycled and secondary aggregates between 2001 – 2016 and a further 75.6 million tonnes between 2016 and 2026, a total of 196.6 million tonnes over that 25 year period or 7.9 million tonnes on average per annum across the region.

5.265 Chapter 3 of the Adopted Gloucestershire Minerals Local Plan (1997 – 2006) (as saved) addresses the issue of Aggregate Minerals Supply and identifies the approach to be taken to meeting identified apportionments and forecasts of supply needs, the landbanking of resources and the provision of future resources through new and extended development.

5.266 Table 2 of that chapter identifies that at the time of preparing the Minerals Local Plan (1996), there was a need to identify further sand and gravel reserves of 9.1 million tonnes for the period 1997 – 2006. These were expected to primarily be provided by resources located in the Upper Thames Valley, as part of the agglomeration of mineral extraction sites that forms the Cotswolds Water Park.

5.267 The Adopted Gloucestershire Structure Plan Second Review (1999) (as saved) builds on the provisions of the Minerals Local Plan and sets out the broad strategic planning framework for the provision of minerals in Gloucestershire. As part of its strategy it seeks to “conserve minerals resources as far as possible whilst ensuring an adequate and steady supply required to meet essential economic and social needs of the community for minerals...”

5.268 Whilst Policy M.8 explains that sand and gravel will be expected to predominantly be supplied from sites located within the Upper Thames Valley, consistent with the MLP, policies M.6 and M.7 considering resources and supply respectively make it clear that potential workable minerals resources should as far as possible be safeguarded and that provision will be made to maintain contribution to local aggregate needs.

5.269 Gloucestershire’s draft Minerals Core Strategy (January 2008) (MCS) reflects the ongoing importance of mineral resources in the Upper Thames Valley in paragraph 78, where it is reported that 95% of Gloucestershire’s sand and gravel provisions were sourced from this area.

5.270 Diagram 2 of the MCS shows quite clearly this trend in identifying both the key areas of minerals in the

County and corresponding sites associated with extracting those minerals. In particular, of the 11 sand and gravel extraction sites identified in the County, 8 are located in the Upper Thames Valley area, 1 to the south east of Gloucester, 1 to the north of Tewkesbury and the final site, Wingmoor Farm IWFM located north of Cheltenham. Diagram 3, however, identifies preferred areas for future sand and gravel workings only in the Upper Thames Valley area.

5.271 Reflecting the need to work towards achieving national and regional apportionments of mineral supply, the MCS sets out the key local factors that will influence the supply of sand and gravel in Gloucestershire, these being:

- “The resource relationship between Gloucestershire, Wiltshire and Oxfordshire and the working of sand and gravel from the Upper Thames Valley resource area;
- The operational capacity, infrastructure, and economic viability of all sand and gravel resource areas in the county; and
- The influence of existing markets and supply trends.” (paragraph 129)

5.272 The MCS goes on to discuss preferred options for sand and gravel provision, each of which is aimed at identifying preferred areas for future working with the aim of achieving the necessary maintenance of Gloucestershire’s identified landbank.

### Sand and Gravel at Wingmoor Farm IWFM

5.273 It is clear from the national, regional and local guidance in force and in preparation that not only is the sustainable provision of sand and gravel of significant importance for the Minerals Planning Authority, the need to ensure that sufficient reserves of material are available is a challenging one.

5.274 Government guidance makes it clear that where suitable quality minerals are available their use must be carefully considered. At the regional and local level these principles are allied with the need to identify and safeguard as appropriate those resources that can be realised in making a contribution towards the landbank of minerals that must be maintained by each Minerals Planning Authority.

5.275 Whilst neither the MLP or the MCS identify Wingmoor Farm IWFM as such a strategic resource that would be expected to play a role in future sand and gravel provision in the County, this is not considered surprising. The remaining sand and gravel reserves at the application

site total 40,000 tonnes, expected to be extracted, processed and supplied to the local market, principally the Cheltenham area, over a five year period.

5.276 However, none of the guidance identified above advocates the sterilisation of accessible and usable minerals resources that can be sourced from existing mineral extractions sites. Whilst the sand and gravel extraction element of the application site is reaching its final stage, it would be inconsistent with the Government, Regional and Local Planning Guidance outlined above to allow that remaining reserve to be sterilised and lost.

5.277 Currently, sand and gravel from the application site is supplied to a local market. The continued provision of this material, and completion of sand and gravel extraction operations on site would also make a small but nonetheless valuable contribution towards the overall annual sand and gravel supply required in Gloucestershire, particularly whilst future preferred areas are identified and consented.

### Clay – Policy and Guidance

5.278 Annex 2 of MPS1 provides planning guidance in respect of Brick Clay. Whilst not specifically the same market as engineering clay, paragraph 1.1 of the Annex explains that, inter alia, the term brick clay in this context is taken to include “...clays used for environmental and engineering purposes such as lining, daily cover and capping at landfill sites, and the lining of canals, lakes and ponds.”

5.279 The main text identifies the principle objectives for minerals planning. In particular, paragraph 9 of MPS1 explains that the Government’s objectives for minerals planning reflect the provisions of the Planning and Compulsory Purchase Act 2004. Key objectives applicable to this the continued extraction of clay at Wingmoor Farm IWFM include:

- “To conserve mineral resources through appropriate domestic provision and timing of supply;
- To safeguard mineral resources as far as possible;
- To secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals;
- To secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, without irreversible damage;
- To maximise the benefits and minimise the impacts of minerals operations over their full life cycle;

- To protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long term potential of land for a wide range of after-uses;
- To encourage the use of high quality materials for the purposes for which they are most suitable.”

5.280 In considering the safeguarding and supply of brick clay resources, paragraphs 3.1 and 3.2 of Annex 2 advise that safeguarding should be carried out in accordance with MPS 1 and that clay resources should be extracted as close as is practicable to the market they are intended to serve, although it is recognised that supply and demand may operate over wider, potentially regional market catchments.

5.281 Paragraph 3.4 of Annex 2 advises that, “When developing planning policies and considering planning applications, MPAs and LPAs should take account ... of:

- “the need to recognise the potential for sales of clay for other uses, particularly engineering purposes, such as lining, daily cover and capping material for landfill sites, the lining of canals, lakes and ponds, as construction fill or as bulk fill suitable for roadway construction or for the manufacture of lightweight aggregate or cement. In some cases, clay pits may be operated mainly or wholly for these other purposes rather than for brick clay extraction.”

5.282 It is clear from MPS1 that, whilst not a mineral whose provision has been quantified in detail such as sand and gravel, clay provision is recognised as being necessary for a considerable range of essential engineering applications. Where resources of clay are readily accessible and their extraction can be efficiently achieved through the use of existing on site ancillary equipment and plant, then the role of such sites in meeting ongoing engineering needs should be carefully taken into account.

5.283 Although neither RPG10 or the emerging SW RSS makes reference to the provision of brick or engineering clays in the region, the broad thrust of the approach taken to minerals policy in the south west is to ensure that planning authorities make provision towards the south west’s requirement to contribute to national aggregates requirements and to safeguard mineral resources of local, regional and national economic importance from sterilisation.

5.284 In so doing, the requirement for engineering minerals such as clay will need to be given appropriate consideration, guided by the provisions of MPS1, when MPAs prepare planning policy and consider planning applications for the extraction of clay.

5.285 The Adopted Minerals Local Plan provides a brief explanation of the clay resources in the County, identifying the extensive deposits of Lower Lias Clay in the Severn Vale, in which the application site is located, and the Vale of Moreton and their use through time limited consents in applications such as bulk road fill, site cover at waste disposal sites and flood defence works (paragraph 4.3.2).

5.286 Paragraph 4.3.3 identifies the application site as one of five extant clay extraction sites in the County at the time of publication, with those resources associated with the prior extraction of sand and gravel and the ongoing restoration of void through waste disposal, in which the clay will play a role in capping and other purposes.

5.287 Paragraph 4.3.4 states that, *“With the exception of the brick clays, future demand is likely to be related to specific end-use requirements; for example flood defence works.”* Introducing Policy NE2, paragraph 4.3.6 explains that *“Taking into account national guidance and the nature and extent of existing clay working in the County, it is not considered appropriate to identify resource areas for future clay working in the Plan.”* Recognising this, Policy NE2 states:

*“Proposals for the working of clay will be permitted where its use for a specific purpose outweighs any adverse environmental, local amenity, or other impacts that the development would be likely to have, and would not prejudice the other policies of this Plan.”*

5.288 Although the Structure Plan does not specifically reference clay extraction, it does identify as part of its aim that minerals resources should be conserved *“...as far as possible whilst ensuring an adequate and steady supply required to meet essential economic and social needs of the community for minerals...”* Policy M.1 explains that, in considering applications for mineral extraction at the least environmentally damaging sources, *“...suitable extensions of existing mineral workings will be given preference to the development of new mineral workings or the reopening of disused ones.”* Policy M.6 makes it clear that potential workable minerals resources should as far as possible be safeguarded.

5.289 The MCS recognises this reported pattern of clay resources and provision as previously identified by the MLP and the Structure Plan and allies this with the provisions of MPS1 and its Annex 2. Considering the current provision of clay resources as at 2008 both locally and further afield, paragraph 137 of the MCS explains that *“It is also considered there are sufficient remaining*

*resources to support other engineering projects as they come forward. However, circumstances may change in the future in terms of local demand and the strategic significance of local resources for outside of the county.”*

5.290 The MCS recognises the need to ensure that a deliverable and flexible policy framework for clay provision is put in place that allows for the consideration of need and supply alongside the environmental impacts of clay extraction. Proposed preferred option policy MPO6 states, in respect of clay:

*“The other engineering policy will consider the acceptability of future clay extraction in the context of need; local environmental capacity; public amenity; transportation; restoration potential; and opportunities to re-use material back on-site.”*

### **Clay at Wingmoor Farm IWMF**

5.291 The provision of clay for engineering purposes is recognised in existing national and local planning policy and guidance and through emerging local planning policy. The need to ensure that such materials, where they can be secured in an environmentally acceptable manner, have an important role to play, both within Gloucestershire and further afield by virtue of the quality of the clay resources available in the County. In this context, planning policy advises that such resources for the local and, in this case, regional market should not be unnecessarily sterilised.

5.292 Both adopted MLP Policy NE1 and emerging draft MCS policy option MPO6 ally the provision of clay with the need to protect environmental interests, in with Government policy formerly in MPGs 1 and 6 and currently in MPS1. This Environmental Statement considers the full range of likely significant environmental effects that would be caused by the continued extraction of clay, its use on site and export off site and has concluded that such effects would, through careful mitigation where required, be acceptable.

5.293 A total of 1,350,000 cubic metres of Lower Lias clay present on site will be extracted, with 918,000 m<sup>3</sup> utilised on site to ensure that these engineering works essential to the proposed development can be completed. The extraction of this clay is part of the overall materials balance for the preparation, operation and completion of the site including all associated engineering, bunding, lining, daily cover and capping requirements.

5.294 The remaining 432,000 m<sup>3</sup> of the clay to be extracted will be exported off site over a period of approximately 18 years in response to Grundons current

clay supply contracts. In particular, Grundon's are currently party to contractual arrangements in respect of the provision of clay for off-site engineering purposes, both within Gloucestershire and to the wider inter-regional market, including two landfill capping schemes, two brownfield remediation schemes and for Environment Agency flood defence works at Upton on Severn, approximately 5 miles north of Tewkesbury.

5.295 Collectively, these contracts are forecast to consume all of the 432,000 m<sup>3</sup> of clay to be produced for export, which is proposed to be supplied at an average annual rate of 24,000 m<sup>3</sup> per annum over the 18 year operational period. The remaining 918,000 m<sup>3</sup> of clay to be extracted will be used on site as part of the engineering requirements that are essential for the creation of the final proposed landfill to be created through the restoration of the site to a suitable after use in the Green Belt.

5.296 It is considered that the provision of this essential mineral as outlined above is fully in accordance with Government and Local Planning Policy. This Environmental Statement has demonstrated that impacts from the extraction, use on-site and export off-site of clay reserves can be accommodated by the receiving environment and the local highway network without significant adverse impacts.

5.297 Further, provision of this mineral resource meets an identified local and regional need for suitable engineering materials, themselves recognised as being of importance. The use of the application site for this purpose ensures that vehicle movements associated with the on-site engineering works are kept to an absolute minimum through the use of on-site reserves. The use of the site for off-site engineering projects is also consistent with planning policy, particularly the use of existing sites in preference to new sites, where environmental impacts are acceptable.

## **SUMMARY AND CONCLUSIONS**

5.298 Guidance and policies underlying the need for the proposals is complex and this chapter has necessarily had to analyse and reflect on a substantial body of evidence. It is appropriate to return to the early part of the chapter where it was explained that the underlying need for the proposals is to complete mineral extraction and restore the site through landfilling. This chapter has reviewed the need for doing this in a manner that, but for the imposition of a duration condition, has on the several occasions when planning permissions have been granted for the facilities at Wingmoor, been deemed appropriate

and acceptable, taking into account all material considerations.

5.299 The chapter shows that it remains important to achieve a safe and appropriate restoration of the established mineral workings at this site, without sterilising remaining essential minerals that are in local and regional demand and without reducing the capacity of the voidspace available within the restoration envelope. The operation of a MRF as a fundamental component of the landfill is essential to enable national objectives on waste recycling and landfill diversion to be met.

5.300 The performance of the proposals in respect of this overall need, and their preference in environmental terms over other options, which would not meet the need, is explored elsewhere in this ES. Some general conclusions about the way the proposals meet the need can, however, be made here. In respect of landform and afteruse, the proposals are generally to restore the site to a state that has in the past been considered acceptable in terms of Green Belt policy, and other landscape, amenity and engineering criteria. There have been no significant changes to relevant planning circumstances and recent and emerging planning policy continue to support the operation and restoration of Wingmoor Farm as proposed.

5.301 A principal element of the analysis of the policy background to need is that it is important to husband and maximise disposal capacity on existing consented sites, thereby avoiding a requirement to provide unnecessary new facilities elsewhere. It is similarly necessary to ensure that mineral resources are utilised in the most efficient and sustainable manner. The proposals are designed to achieve this.

5.302 The use of the landfill capacity is to be supplemented by the pre-treatment of wastes at the MRF, with any residuals from that process being disposed of on site. This is considered to contribute to the essential need for waste recovery and disposal capacity simultaneously, and is considered to accord with national, regional and local policies.

5.303 There is a particular need, which transcends county and, especially in this location close to the border of the south west region, regional boundaries, for hazardous waste disposal. In that context, the Wingmoor facilities are especially valuable. The proposals are designed to ensure that Wingmoor can continue to meet identified local, regional and inter regional requirements to ensure that society's hazardous wastes are safely and properly handled, treated and disposed of.

