



**SIDEGATE LANE,
WELLINGBOROUGH**

**APPLICATION FOR A RESOURCE
RECOVERY FACILITY**

JULY 2012



PLANNING APPLICATION FOR A RESOURCE RECOVERY FACILITY

SIDEGATE LANE, WELLINGBOROUGH, NORTHAMPTONSHIRE, NN8 1RN

SITA UK

July 2012
Version 2
Final



CONTENTS

1	INTRODUCTION	4
1.1	Background	4
1.2	Environmental Impact Assessment	4
1.3	Scope of Environmental Impact Assessment	5
1.4	The Applicant and Landownership	6
1.5	The Assessment Team	6
1.6	Documentation and Public Comment	6
2	THE SITE AND ITS SETTING	7
2.1	The Site and its History	7
3	METHODOLOGY	9
3.1	General	9
3.2	Baseline Survey	9
3.3	Approach to Assessment	9
3.4	Cumulative Impacts	10
3.5	Terminology	10
4	THE DEVELOPMENT PROPOSAL	11
5	PLANNING HISTORY AND POLICY CONTEXT	17
5.1	Planning History and Context	17
5.2	National Policy	17
5.3	Regional Policy	19
5.4	Local Policy	19
5.5	Planning Policy Compliance and Considerations	23
6	CONSULTATION	25
6.1	Introduction	25
6.2	Pre-Application Consultation	25
6.3	Community Consultation	25
6.4	Post Submission Consultation	26
7	NEED AND ALTERNATIVES	27
7.2	Need	27
7.3	Alternatives	29
8	AIR QUALITY AND ODOUR	32
9	ARCHAEOLOGY	37

10	CONTAMINATION AND GROUND CONDITIONS	39
11	ECOLOGY AND TREES	47
12	HYDROLOGY	55
13	LANDSCAPE AND VISUAL IMPACT	60
14	NOISE	67
15	TRAFFIC AND TRANSPORTATION	70
16	CUMULATIVE IMPACTS	74
17	SUMMARY AND CONCLUSIONS	76
17.1	Summary.....	76
17.2	Conclusions	77

APPENDICES

APPENDIX 1: Screening Opinion**APPENDIX 2: Grit Separation Process****APPENDIX 3: Outline Proposals for the Manufacturing of Soils from Waste Materials at Sidegate Lane****APPENDIX 4: WS8 Wellingborough – Sidegate Lane****APPENDIX 5: Catchment Area Statement****APPENDIX 6: Consultation Correspondence****APPENDIX 7: Air Quality Assessment****APPENDIX 8: Heritage Assessment****APPENDIX 9: Phase 1 Site Investigation Report****APPENDIX 10: Ecological Impact Assessment****APPENDIX 11: Tree Survey Report****APPENDIX 12: Surface Water Drainage Design Summary****APPENDIX 13: Landscape and Visual Impact Assessment****APPENDIX 14: Noise Impact Assessment****APPENDIX 15: Highway Impact Statement**

1 INTRODUCTION

1.1 Background

- 1.1.1 This Environmental Statement (ES) has been prepared under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011. It accompanies a planning application submitted to Northamptonshire County Council by GP Planning Ltd on behalf of SITA UK to construct a Resource Recovery Facility, to include Refuse Derived Fuel Facility, Road Sweeping Recycling and Soil Blending at Sidegate Lane, Wellingborough.
- 1.1.2 The ES comprises three main parts:
- Report;
 - Technical Appendices; and
 - A Non-Technical Summary (NTS) of the ES.
- 1.1.3 The NTS is presented as a separate document.
- 1.1.4 The site is located off Sidegate Lane, Wellingborough shown on Drawing GPP/S/SL/11/01.
- 1.1.5 The site is identified in the Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD, adopted March 2011, for waste management use in or adjacent to urban areas. The DPD has recognised the merits of the site, and is encouraging the promotion of the site for future waste management use.

1.2 Environmental Impact Assessment

- 1.2.1 Environmental Impact Assessment is undertaken in accordance with The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (the EIA Regulations), as amended. These regulations provide an indication of the need for an EIA.
- 1.2.2 The proposed development falls within paragraph 11 (b) of Schedule 2 of The Town & Country Planning (Environmental Impact Assessment) Regulations 2011, defined development. This is stated as

'Installations for the disposal of waste...the area of the development exceeds 0.5 hectare'.

- 1.2.3 This Environmental Statement (ES) has been prepared under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011. The Regulations implement EC Directive No. 85/337 on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive No 97/111/EC.
- 1.2.4 A Screening Opinion was requested from Northamptonshire County Council on 25th April 2012. Under the EIA Regulations (2011), Northamptonshire County Council provided a Screening Opinion on 31st May 2012. A copy of the formal Screening Opinion is supplied in Appendix 1.

1.3 Scope of Environmental Impact Assessment

1.3.1 The Environmental Impact Assessment Regulations (Schedule 4) require particular topic areas or information to be included in an Environmental Statement. In addition, the scope of the assessment was informed by a review of WS8 Wellingborough – Sidegate Lane site profile, provided as part of the Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD (adopted March 2011). Particular reference is made to the following development requirements:

- A site specific (project level) HRA is to be carried out at the planning application stage.
- Further archaeological evaluation required (in unquarried parts).
- A Transport Assessment is required to determine safe and effective access provision, and to assess the capacity of transport infrastructure to accommodate the proposal.

1.3.2 Furthermore, the Screening Opinion in Appendix 1 makes reference to information to be included in the Environmental Statement including:

- Detailed assessment of the potential impact of the operations on landscape, ecology, noise, dust, visual amenity and highways matters.
- Review of cumulative impact of the proposed development with the adjacent land use.

1.3.3 Therefore, the following sections are included as part of the Environmental Statement: Background, Introduction and Context

- The Site and Its Setting
- Methodology
- The Development Proposal
- Planning History and Planning Policy Context
- Consultation
- Need and Alternatives
- Air Quality and Odour
- Archaeology
- Contamination and Ground Conditions
- Ecology and Trees
- Hydrology (Flood Risk and Drainage)
- Traffic and Transportation
- Landscape and Visual Amenity
- Noise
- Summary of Impacts
- Conclusions

1.3.4 The following topics have been 'Scoped-out' of this EIA. The application site has been in use for many years for landfilling and prior to that quarrying. The nature of the proposed development is considered to not impact on these areas, informed by the WS8 Wellingborough – Sidegate Lane site profile, provided as part of the Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD (adopted March 2011). The topics 'scoped-out' are:

- Socio-Economic Impacts – The economic benefits of realising recycling goals will be assisted
- Hydrogeology – Limited potential for impact on water resources due to nature of operations and materials.
- Climate Change

- Soils – considered *unlikely to be an issue given the nature of the operations*, in the WS8 Wellingborough – Sidegate Lane site profile, provided as part of the Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD (adopted March 2011)

1.4 The Applicant and Landownership

- 1.4.1 SITA UK is the United Kingdoms' operating subsidiary of Suez, which is the European leader in the provision of environmental services to commerce, industry and the public sector. SITA UK is one of the largest waste management and related service companies in the UK, with substantial experience in all aspects of integrated waste management including transfer station operation, recycling, composting, energy from waste and landfill. The company has in excess of 4,500 employees with an annual turnover of approximately £500 million. Every day, over 12 million residents and 40,000 business customers nationally benefit from SITA UK's knowledge and experience in managing waste.
- 1.4.2 SITA UK invest in their facilities to ensure compliance with European directives, national statutes as well as regional and local policies. SITA UK take their environmental responsibilities seriously and require strict compliance with site permits and authorisations, applying the highest technical standards in our operations.
- 1.4.3 SITA UK purchased the site in 1997, taking over the landfill operations from Nene Valley Waste. The extent of this landownership is illustrated on Drawing GPP/S/SL/12/02.

1.5 The Assessment Team

- 1.5.1 The following consultants have contributed to the Environmental Impact Assessment and the preparation of this Environmental Statement:
- Bancroft Consulting: Traffic and Transportation
 - Bright and Associates: Landscape and Visual Amenity
 - CgMS Limited: Archaeology
 - Coldat Environmental Services Ltd: Air Quality and Odour
 - GP Planning Limited: project management, planning, EIA co-ordination
 - Noise and Vibration Consultants Ltd: Noise
 - Patrick Stileman Ltd: Trees
 - TerraConsult: Contaminated Land and Hydrology
 - Windrush Ecology Ltd: Ecology
- 1.5.2 Technical details relating to the project have been supplied by the Applicant.

1.6 Documentation and Public Comment

- 1.6.1 A copy of the ES (main statement only) or the ES (main statement plus technical appendices) can be purchased from GP Planning Ltd for £25 or £50 respectively for printed copies or £5 for a copy on CD. Copies of the Non-Technical Summary are available free of charge.

GP Planning Ltd, The Stables, Long Lane, East Haddon, Northamptonshire, NN6 8DU
Tel: 01604 771123, Email: info@gpplanning.co.uk

2 THE SITE AND ITS SETTING

2.1 The Site and its History

Application Site

- 2.1.1 The application site is located at Sidegate Lane, Finedon, Wellingborough on the west boundary of Sidegate Lane Landfill, separated from the landfill by a large engineered screening bund with tree planting. The application site is located within the Borough Council of Wellingborough and Northamptonshire County Council jurisdictions.
- 2.1.2 The application site is 2.58 hectares in area, with maximum plan dimensions of 320m by 70m. It is irregular in shape but its long axis runs approximately north – south. The application site sits at between 73m to 76m AOD, with the northern part of the application area at the higher elevation. The screening bund to the south east slopes upwards to the east, with the current operational area of the landfill beyond at an approximate level of 90-94m AOD. The maximum permitted final height of the restored landfill will be 104m at its peak.
- 2.1.3 The northern part of the application site is not in general use, with some open storage of empty skips and bins, and very limited storage of pallets, woodchip and compost. Within this area composting was previously carried out. Also there is a lagoon, previously associated with the composting operations, approximately 35m by 12m which currently contains water. The southern part of the site is currently used for staff and visitor car parking, with some more open storage and steel storage containers. There are also a number of temporary office buildings.
- 2.1.4 The site is bordered with woodland vegetation to the south west (consisting of Ash, Hawthorn, Elder with some limited Sycamore, Oak and Alder) and young woodland plantation to the east (comprising Hawthorn, Alder, Field Maple, Ash, Elder and Hazel). The western boundary also contains an out grown Hawthorn hedge, which continues as a relatively young hawthorn hedge to the north west of the application site along a field boundary. The existing screening bund to the north west is recently planted with Ash, Field Maple, Hazel and Hawthorn. Furthermore, there is a group of approximately 7 Sycamore trees in the centre of the southern area of the application site.
- 2.1.5 The site is located in proximity to the entrance, access, weighbridge and offices which serve Sidegate Lane Landfill. Sidegate Lane Landfill is a former open cast ironstone quarry dating from the early 1900s, backfilled with refuse from approximately the 1970s (pre-SITA ownership) and is now partially restored. Further information on the history and development of the quarry and landfill is provided in Appendix 8 and 9. The northern part of the site was previously landfilled. The extent of the area landfilled within the application site is illustrated on Proposed Site Layout SITA 6000.
- 2.1.6 The extent of the application site is illustrated on Drawing GPP/S/SL/12/02 and the existing site is illustrated on Drawing GPP/S/SL/12/03.

Application Site Setting

- 2.1.7 The application site is approximately 2km south of the village of Finedon in Wellingborough, 3km north east of Wellingborough and approximately 6km south of the A14. The site location is illustrated in Drawing GPP/S/SL/11/01.
- 2.1.8 The site situated in a rural location, surrounded by agricultural fields and isolated dwellings. The agricultural fields principally comprise arable land with some improved pasture within a network of interconnecting hedgerows. Woodland is generally scarce within the local area. The former gravel pits of the Nene Valley form an extensive area of wetland habitat to the south of the site. Despite the rural location the public right of way network in proximity to the site is very limited.
- 2.1.9 The nearest residential properties are:
- Ryebury Farm (~150m west of the extent of the proposed development at the nearest point)
 - Top Lodge Farm (~840m south east of the extent of the proposed development at the nearest point)
 - Finedon Hill Farm (~450m to the south west of the extent of the proposed development at the nearest point)
- 2.1.10 In addition, there are a number of residential properties and small business premises located on the A510 Wellingborough Road, approximately 400m to the west south west of the proposed development site at its nearest point. There is also an additional commercial facility at Carrol Spring Farm, accessed off Sidegate Lane.
- 2.1.11 There are a number of local features or designated areas in proximity to the site. These include the following:
- Sidegate Lane Scrub and Finedon Mines County Wildlife Sites (CWS), adjacent to Sidegate Landfill
 - Finedon Top Lodge Quarry Site of Special Scientific Significance (SSSI), 1km to the SE
 - Upper Nene Valley Gravel Pits SSSI, 2km to the S
 - Upper Nene Valley Gravel Pits RAMSAR Site, 2km to the S
 - Upper Nene Valley Gravel Pits Special Protection Area (SPA), 2km to the S
 - Nene Valley Nature Improvement Area
 - Finedon, Irthlingborough and Wellingborough Conservation Areas

3 METHODOLOGY

3.1 General

- 3.1.1 The Environmental Impact Assessment has been carried out in accordance with the EIA Regulations (2011) and appropriate government guidance.
- 3.1.2 The specific methodologies for the assessment of the individual environmental topics are presented separately in the technical reports in the appendices of this Statement; these are summarised in the individual topic chapters later in this Statement, where appropriate.

3.2 Baseline Survey

- 3.2.1 Baseline survey work has been carried out as part of the EIA process. A series of detailed surveys were undertaken to establish the baseline conditions on the Site. These were conducted during 2011 and 2012 and include the following:
- Ecological Surveys – a full assessment has been made of the biodiversity resource at Sidegate Lane and surrounding area to establish what species and habitats exist, their numbers and quality.
 - Traffic Survey – an Automated Traffic Count on Sidegate Lane, Speed Survey at Wellingborough Road / Sidegate Lane and survey of recent accident data was undertaken.
 - Noise Survey – an initial feasibility baseline noise survey was undertaken, followed by a detailed baseline noise survey, to record sound pressure levels at the nearest residential receptors.
 - Landscape and Visual Survey – site visits to establish the surrounding receptors and nature of the landscape area.
 - Tree Inspection Survey – assessing the trees from ground level to provide advice on the principle tree constraints in relation to development in order to assist the design process.

3.3 Approach to Assessment

- 3.3.1 Independent, suitably qualified consultants working to recognised guidelines, legislation and regulations, have carried out the assessments undertaken for each environmental topic area.
- 3.3.2 The technical assessments have considered the environmental impacts resulting from the maximum development parameters; in effect the worst case scenario.
- 3.3.3 The design of the development has continued to evolve, since its inception in early 2012, to respond to the outcomes of consultation and to incorporate necessary and appropriate mitigation measures. Where technical assessments have identified a need for additional mitigation measures, these are described in the appropriate chapter and technical appendix.

3.4 Cumulative Impacts

3.4.1 A number of environmental impacts may combine to result in a cumulative impact that is of greater significance than the individual impacts. Each technical assessment has taken into consideration any cumulative impact resulting from the proposal.

3.5 Terminology

Table 3.1 Environmental Statement Terminology

ITEM	DESCRIPTION
SITA UK	The Applicant
Application Site	The area within the red line boundary, Drawing GPP/S/SL/12/02, 2.5ha in size.
Resource Recovery Facility	Includes the following: <ul style="list-style-type: none"> • Refuse Derived Fuel Facility • Road Sweeping Recycling Facility • Soil Blending Process
Local Planning Authority	Northamptonshire County Council

4 THE DEVELOPMENT PROPOSAL

- 4.1.1 The proposed Resource Recovery Facility will comprise of three principle components:
- Refuse Derived Fuel (RDF) Facility (with Waste Reception)
 - Road Sweeping Recycling
 - Soil Blending Area
- 4.1.2 The Resource Recovery Facility will treat 125,000 tonnes of municipal, commercial and industrial waste, road sweepings and soil making materials.
- 4.1.3 The planning application will relate to an area of approximately 2.5 hectares, which is shown on Drawing GPP/S/SL/12/02 Site Plan. The proposed site layout is shown on Drawing 6000 Proposed Site Layout.

Refuse Derived Fuel Facility (with Waste Reception)

- 4.1.4 The RDF Facility will treat up to 100,000 tonnes per annum of municipal, commercial and industrial waste. The waste material will be delivered to the facility in a range of vehicles including Articulate Heavy Goods Vehicles, Skip vehicles, Ro-Ro vehicles, and Front and Rear End Loading vehicles. This will result in on average 86 Heavy Goods Vehicles movements per day.
- 4.1.5 From the Waste Reception, the waste will pass through a shredder to reduce the waste in size. It would then pass through a trommel to sieve the waste, recovering fine material, which would contain organic rich material and would be removed from the waste stream. The organic rich fine material would either be sent to landfill at Sidegate Lane in the short term or to a suitable organic treatment facility (for example an Anaerobic Digestion facility), in the longer term. The remaining waste stream would continue via conveyor belt with overband magnets to remove metals, and then over an Eddy Current Separator. The metals will be taken for further recycling at a SITA UK metal recycling facility. The resultant shredded waste would then be compacted and baled inside the building and wrapped ready for transport. The baled material will be subject to short term storage outside, before being transported to customers which would include Cement Kilns and Energy from Waste facilities.
- 4.1.6 In summary, outputs from the Refuse Derived Fuel Facility, include:
- Organic rich fine material
 - Metals (for further recycling)
 - Refuse Derived Fuel (baled)
- 4.1.7 The Refuse Derived Fuel (RDF) Facility with Waste Reception will be housed within a purpose designed industrial building, 40.5m by 90m, 9m to the eaves and 12m to the ridge. The building will be constructed with a steel frame, concrete blockwork and profiled metal cladding, with 6 number and 3 number of openings on the north eastern and south eastern facades respectively. Of these openings, all will have fast acting roller shutter doors. The building elevations are provided on Drawing 6003, and internal layout on Drawing 6001. In addition, the building design will incorporate a range of mitigation measures to combat odour, dust and noise. The south western elevation along the length of the RDF Facility will be insulated to mitigate noise break out. The internal wall between the RDF Facility and Road Sweeping Recycling will also be insulated. Insulation will be installed to rw41dB. In addition, odour masking sprays will be installed above each of the

doors, and internally dust extraction hoods can be fitted to equipment treating the fines. This building will be designed with the appropriate gas protection measures and with the necessary protection against Radon.

- 4.1.8 The foundations for the building will be either vibro (stone) columns or piles with the foundation loads to be transferred to the underlying Grantham and Northampton Sand Formation. This is because there is about 3 m of Made Ground in the vicinity of the building over bedrock.

Road Sweeping Recycling

- 4.1.9 The Road Sweeping Recycling facility will process up to 25,000 tonnes per annum of road sweepings. This will be accommodated within a purpose designed building, sited alongside the RDF Facility.

- 4.1.10 The road sweepings will arrive at site either direct in street sweepers (approximately 30%) or via transfer stations, having been dewatered, on 8 wheel tipper vehicles (approximately 70%). The road sweepings would be recycled using a grit separation process. This process includes large particle separation using a 'log wash', secondary particle size separation using a 'hydro-cyclone', fine particle separation using the 'aqua cycle' and the final filter cake production. This process includes the outdoor screening of the organic compostable material to remove the litter (bottles, cans and other litter). The organic material will be stockpiled and when sufficient volume allows for economic screening a mobile screener will be used on a campaign basis for no more than a week. In total the mobile screening will not occur for more than 4 weeks per year. A detailed process description is provided in Appendix 2 and illustrated in Drawing GPP/S/SL/12/05 Photopanel.

- 4.1.11 Outputs from the grit separation process include:

- Aggregate (greater than 4mm), which can be used in construction projects or for the manufacture of concrete 'lego' blocks to be used by SITA on a range of sites
- Sand, which can be used for a variety of projects from the manufacture of concrete to pipe bedding material in utility projects and also within the construction of 'lego' blocks to be used by SITA on a range of sites
- 'Filter cake', a clay type material rich in nutrients that can be blended with soils in land remediation projects, for example for the restoration of Sidegate Lane Landfill
- Coarse organic compostable material, which will be screened to remove residual wastes and blended with poor quality soils to manufacture a topsoil
- Residual wastes, which will be processed in the RDF Facility or recycled at an alternative Materials Recycling Facility

- 4.1.12 The outputs from this process will be externally stored in stockpiles for up to 12 weeks within 4 number storage bays (7.5m x 5m per bay).

- 4.1.13 Some of the outputs from the recycling of road sweepings will be utilised within the existing Sidegate Lane Landfill or the associated RDF Facility. However, it is likely that approximately 70% of these outputs will be taken off site for further processing.

Soil Blending

- 4.1.14 The soil blending process will utilise and encourage the reuse of materials which might otherwise go to landfill and instead be used to produce manufactured soils. Sidegate

Lane Landfill has an existing stockpile of 'base soil' or 'stripped' topsoil which will be used as a base material to which nutrient and organic rich material will be blended to create a nutrient and organic rich manufactured soil. The organic rich material will be sourced from the the 'filter cake' from the Road Sweepings Recycling process. The manufactured soils will then, when suitable, be used to restore the landfill site at Sidegate Lane. A detailed process description is provided in Appendix 3.

- 4.1.15 The soil blending operations will take place in the northern section of the application site, on land that was previously used for open windrow composting. These operations will be undertaken outside, and will principally comprise a soil blending area, contained within a large bay (11m x 17.5m). The soil blending will be undertaken with a wheeled loading shovel and screening bucket (which contains a rota with brushes in the bucket), and soil stockpiles within this bay will be restricted to a maximum height of 5m.

Ancillary Development

- 4.1.16 Ancillary development in order to facilitate and operate the proposed facilities will include:
- access to the site and the provision of a weighbridge;
 - staff, visitor and disabled parking to serve this development and Sidegate Lane Landfill;
 - an office building, to serve this development and Sidegate Lane Landfill; and
 - engineering works to facilitate the development.

Access and Vehicle Infrastructure

- 4.1.17 Access to the site is via the existing entrance on Sidegate Lane. No changes to this access are proposed.
- 4.1.18 Upon entering the site heavy goods vehicles will pass over the weighbridge, which will be relocated from within the landfill site. At this location there is also an existing wheelwash facility.
- 4.1.19 In order to facilitate the proposed development there would be a need to relocate existing staff and visitor parking (approximately 13 spaces). Lorry parking, staff car parking, visitor car parking, and disabled car parking spaces will be provided, adjacent to the proposed 2 storey office building. This will equate to the following number of spaces:
- Lorry / HGV parking - 10
 - Staff car parking - 12
 - Visitor car parking - 2
 - Disabled car parking - 2

Office Building

- 4.1.20 A 2 storey office building is proposed, 18m by 8.3m, and 6.5m to the eaves and 7.75m to the ridge. It will house 12 number full time office staff and staff facilities including kitchen, washrooms, staff room, a meeting room, individual staff offices and open plan office space. The 2 storey office building will be constructed as a pre-fabricated modular type building using the following materials including profiled composite wall panels, double glazing and a brick plinth. Elevations and floor plans are provided on Drawings 6004 and 6001 respectively. The foundations for the proposed office building will be conventional footings as there is a limited thickness of Made Ground so conventional footings in the Grantham Formation will be appropriate. This building will be designed with the

appropriate gas protection measures and with the necessary protection against Radon. This office building will be connected to a septic tank to treat foul sewage.

Lighting

4.1.21 External lighting will be provided on site for safety and security, both on machinery and fixed to the building. The provision of lighting will be in accordance with all appropriate industrial standards. It will be kept at low level and at low intensity, with hoods and baffles used to direct the light to where it is required and prevent light spillage. In particular, floodlighting of large areas, particularly areas close to the site boundary, will be avoided. The lighting will use low pressured sodium lamps in preference to mercury or metal halide lamps. It is proposed that a detailed lighting scheme would be provided to the planning authority for approval via a suitably worded planning condition.

Engineering Works

- 4.1.22 In order to facilitate the development it will be necessary to relocate an area of existing skip and bin storage currently used by SITA UK. This will be relocated elsewhere within the area of Sidegate Lane landfill.
- 4.1.23 In addition, new areas of hardstanding will be provided. The majority of the hardstanding will be tarmac, with a concrete apron to the front of the RDF Facility building. The majority of the application site is already hardstanding, which includes the skip storage area, access to the composting area and the existing composting pad. In total (existing and proposed), the area of hardstanding within the application site will extend to 16,705 square metres in total. Furthermore, pre-cast concrete block retaining walls will be used to construct the storage bays and soil blending areas. These retaining walls will have a maximum height of 4.2m. These are illustrated further on Drawing 6002 Proposed Site Sections.
- 4.1.24 In order to facilitate the development an area of the existing screening bund to the eastern boundary of the application site will be re-engineered, and material removed from this location, creating a suitably wide development platform. This will involve the removal of a width of about 35m from the toe of the slope, and the regrading, topsoiling and replanting of the existing screening bund. The material removed will be used to extend the screening bund adjacent to the north west of the facility and to fill the existing lagoon. Any remaining soils will, where feasible, be utilised in the progressive restoration of the landfill.
- 4.1.25 The screening bund is located north of the proposed RDF and Road Sweeping Recycling facility and west of the proposed Soil Blending facility. The extended bund will require approximately 8,000 cubic metres of material, relocated from within the site, and will then be covered with soils from the existing reserves at Sidegate Landfill. The area to include the existing screening bund, its extension and land between the bund and the ownership boundary will be planted with species to include ash, field maple, wild cherry, dog rose, English oak, hazel and blackthorn as the core species of the planting. In addition, further species such as dogwood, wayfaring tree, guelder rose and silver birch will be included. It is proposed that a detailed landscape scheme would be provided to the planning authority for approval via a suitably worded planning condition.
- 4.1.26 The existing lagoon, was previously used in association with the open windrow composting operations, and is now redundant. The lagoon is 37 m by 11 m and

approximately 1.5 m in depth and is constructed with a HDPE liner. Water within the lagoon will be drained by pump into tankers and taken for disposal alongside the leachate from the landfill site. The lagoon will be backfilled with 350 cubic metres of inert material, and then surfaced with reinforced concrete.

Drainage

- 4.1.27 In terms of drainage, the application area will be divided into two areas with different drainage systems, detailed below:
- The northern part of the site comprises of a concrete slab accommodating the Soil Blending Area: Activities in this area involve processing and blending soil so any incidental rainfall has the potential to become contaminated and would be treated accordingly. Rainfall and leachate from this area will be retained within suitable constructed bunding and drained to a sump/lagoon for tinkering off site for treatment at a suitably licensed facility.
 - In the southern part of the site a new existing concrete slab will be constructed to accommodate the RDF area including the buildings and exterior hard standing: The drainage from the roof of the building and all exterior hard standing and the roof of the new site offices will be drained to the western edge of the site. Along this edge is a ring ditch linked into the surface water drainage system for of the main landfill drainage system.

Construction, Operations and Phasing

- 4.1.28 The construction of the facility will take approximately 7 months, comprising of 1.5 months enabling works, 3 months building construction, 1.5 months plant installation, and followed by 1 month commissioning.
- 4.1.29 The RDF and Road Sweeping Recycling facilities will commence operation simultaneously, and when operational suitable existing waste inputs into Sidegate Landfill will be diverted to the RDF facility, reducing the volume of waste sent to landfill and moving treatment of waste up the Waste Hierarchy.
- 4.1.30 The Road Sweeping Recycling facility will take time to establish markets, and is expected to be at full capacity around 6 months after commissioning.
- 4.1.31 The Soil Blending facility will follow on from the RDF and Road Sweeping Recycling facilities, and is expected to take around 12 months to establish itself in the market and to operate at full capacity.

Operational Hours

- 4.1.32 The operational hours for the facilities are set out in the Table 4.1 below:

Table 4.1: Resource Recovery Facility Opening Hours

	For the receipt of waste (and extent of operating hours for the soil blending operations)	For the processing of waste within the RDF and Road Sweeping Recycling building only	For fixed plant maintenance only within the RDF and Road Sweeping Recycling building only
Monday – Friday	07:30 – 17:00	06:00 – 20:00	06:00 – 22:00
Saturday	07:30 – 14:00	07:00 – 16:00	06:00 – 22:00
Sunday	08:00 – 14:00	No Processing	08:00 – 14:00
Bank Holiday	No Receipt of Waste	No Processing	No Maintenance

4.1.33 Each Saturday immediately preceding and subsequent to any Bank and Public Holidays will have the following opening hours for the receipt and processing of waste:

- 07.30 – 17.00

Employment

4.1.34 The Resource Recovery Facility will require the employment of 12 full time and 2 part time staff for its operation. Of these, 1 staff member is likely to be based in the office building, with the remainder working within the operation of the facility itself.

5 PLANNING HISTORY AND POLICY CONTEXT

5.1 Planning History and Context

5.1.1 Sidegate Lane is a substantial active landfill and previously an ironstone quarry operating since the early 1900s. Recent planning history associated with the landfill and surrounding area is summarised as follows:

- WP/09/0507, March 2010, Variation of condition 8 of planning permission WP/95/238C to extend the life of the power generation plant until 30/06/2031
- WP/07/0001, February 2008, Replacement of existing portakabins with new portakabin and relocation of lorry parking area
- WP/07/0008, February 2007, Variation of condition 8 of planning permission WP/01/481C to allow the extraction of clay and overlying minerals to subsequent reinstatement to cease no later than 31 July 2017
- WP/02/736C, June 2006, Green waste composting facility
- WP/01/481C, February 2002, Extraction and exportation of clay from area known as cells 3, 4 and 5
- WP/99/0272, September 2004, Change in final levels for planning permissions BW/92/0246 & WP/94/0028, change in area of BW/92/0246 and change of end date to 31/12/2002
- WP/95/238C
- WP/94/28C, June 1994, Extension to existing landfill, infilling with industrial, commercial and domestic waste and extraction of clays
- BW/92/246C, April 1995, Extension to existing landfill, infilling with industrial and domestic waste and extraction of clays for on site use
- WP/96/257C, August 1996, Construction of garage for servicing and area for washing refuse collection vehicles
- WP/96/443C, November 1996, Extraction and export of upper lias clay, ironstone and overlying minerals
- WP/96/459C, December 1996, Installation of silos and conditioning plant
- WP/99/15C, June 1999, Installation of two buildings to serve as offices for the management of waste
- WP/99/111C, October 1999, Inert material recycling facility

5.2 National Policy

National Planning Policy Framework

5.2.1 The National Planning Policy Framework (NPPF) was adopted at the end of March 2012 and is designed to consolidate policy statements, circulars and guidance documents into a single concise document. In line with the fundamentals of the waste hierarchy in developing waste reuse and recovery as a key compliance for waste treatment, the recently published NPPF holds sustainable development principles at its core.

5.2.2 The NPPF has been formulated as the guiding document that will shape the planning system in the future. The NPPF states at paragraph 7 of its introduction that it does not contain specific waste policies *'since national waste planning policy will be published alongside the National Waste Management Plan for England'*. However, paragraph 7 goes on to say that local authorities should have regard to the policies in the Framework in

preparing their waste plans. While the NPPF does not include any express policies in relation to waste development, the general principles of the Framework are nevertheless material considerations that should be taken into account in the determination of this application.

5.2.3 In this case, the NPPF is clearly a material consideration in that it signals a new approach to the determination of planning applications and, in particular, a strong presumption in favour of sustainable development.

5.2.4 Paragraph 14 of the NPPF states that:

'At the heart of the planning system is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision taking...Local planning authorities should positively seek opportunities to meet the development needs of their area...approving development proposals that accord with the development plan without delay.'

Planning Policy Guidance and Statements

5.2.5 **PPS 10 Planning for Sustainable Waste Management** sets out the relevant principles for the sustainable design, and use of new development with regard to the efficient use of resources throughout the lifespan of a development.

5.2.6 PPS10 advises waste planning authorities in deciding which sites to identify for waste management facilities, waste planning authorities should

(i) assess their suitability for development against each of the following criteria:

- the extent to which they support the policies of this PPS;
- the physical and environmental constraints on development, including existing and proposed neighbouring land uses;
- the cumulative effect of previous waste disposal facilities on the well-being of the local community, including any significant adverse impacts on environmental quality, social cohesion or economic potential;
- the capacity of existing and potential transport infrastructure to support the sustainable movement of waste, and products arising from resource recovery, seeking when practicable and beneficial to use modes other than road transport.

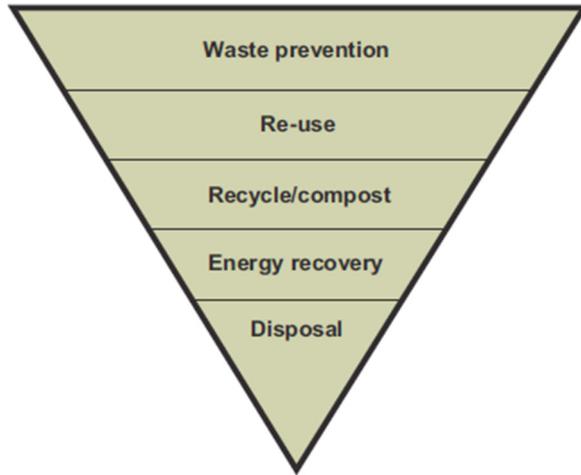
(ii) give priority to the re-use of previously developed land and redundant agricultural and forestry buildings and their curtilages.

Government Review of Waste Policy 2011

5.2.7 The key objectives are:

- *Prioritise efforts to manage waste in line with the waste hierarchy and reduce the carbon impact of waste;*
- *Develop a range of measures to encourage waste prevention and reuse, supporting greater resource efficiency;*
- *Develop voluntary approaches to cutting waste, increase recycling, and improve the overall quality of recycle material, working closely with business sectors and the waste and material resources industry;*

5.2.8 Fundamental to the aims of the waste strategy is the waste hierarchy, a key element of which is recycling, which turns waste into a resource.



5.3 Regional Policy

- 5.3.1 The East Midlands Regional Plan comprises the Regional Spatial Strategy for the East Midlands for the period up to 2026. With the introduction of the Local Development Plan Framework (LDF) the RSS had provided regional policies relating to proposed development.
- 5.3.2 In 2010 the UK Government abolished the strategies under s79(6) of the Local Democracy Economic Development and Construction Act 2009. In the Autumn of 2010 the High Court rules that the Secretary of State's decision to revoke Regional Spatial Strategies (RSSs) was unlawful as it had been taken without primary legislation. A statement was then issued by the Government reiterating their intention to remove Regional Spatial Strategies through the Localism Bill, and that this should be treated as a material consideration for planning applications. Despite a further legal challenge, it was confirmed that the Government's intention to abolish Regional Spatial Strategies is a material consideration which should be taken into account when determining a planning application. A Commons Select Committee Report was published in Spring 2011 acknowledging the presence of a planning policy vacuum as a result.
- 5.3.3 The Localism Act (2011), in its ability to devolve greater powers to councils and neighbourhoods and give local communities more control over planning decisions, will enable the RSSs to be abolished.

5.4 Local Policy

- 5.4.1 The principal local planning policy is set out in the Northamptonshire Minerals and Waste Development Framework. A partial review of the Northamptonshire Minerals and Waste Development Framework is currently underway.

Northamptonshire Minerals and Waste Development Framework Core Strategy DPD (adopted May 2010)

- 5.4.1 The Core Strategy identifies Northamptonshire's central spine and the sub-regional centre of Daventry as the areas within which waste management development should be focussed.

Policy CS1: Northamptonshire's waste management capacity

This provision will come from a mix of extensions to existing sites, intensification or re-development of existing sites and new sites, providing they all meet the spatial strategy for waste management and are assessed as meeting environmental, amenity and other requirements. Allocations that will contribute to meeting provision will be identified in the Locations for Waste Development DPD.

Policy CS2: Spatial strategy for waste management

Northamptonshire's waste management network, particularly advanced treatment facilities with a sub-regional or wider catchment, will be focused within the central spine, and the sub-regional centre of Daventry. Development should be concentrated in Northampton, Wellingborough, Kettering, Corby and Daventry. Development in the smaller towns should be consistent with their local service role. Facilities in urban areas should be co-located together and with complementary activities.

Policy CS7: Sustainable design and use of resources

New built development should seek to utilise the efficient use of resources in both its construction and its operation.

Policy CS12: Development in the vicinity of minerals and waste development

New development adjacent to, or in close proximity to, the following should only be permitted where it can be demonstrated that it would not prevent or prejudice the use of the facility:

- planned and operational mineral extraction or processing facilities,
- planned and operational waste management facilities (including sewage treatment works), or
- minerals and waste related railhead or wharf facilities.

Policy CS14: Addressing the impact of proposed minerals and waste development

Proposals for minerals and waste development must demonstrate that the following matters have been addressed:

- *minimising environmental impact and protecting Northamptonshires key environmental designations,*
- *protecting natural resources or ensuring that any unavoidable loss or reduction is mitigated,*
- *ensuring built development is of a design and layout that has regard to its visual appearance in the context of the defining characteristics of the local area,*
- *ensuring access is sustainable, safe and environmentally acceptable, and*
- *ensuring that local amenity is protected.*

Northamptonshire Minerals and Waste Development Framework

Locations for Waste Development DPD (adopted March 2011)

- 5.4.2 This document principally sets out locations for waste development within the county, under four distinct categories:
- Sites for integrated waste management facilities
 - Sites for waste management use in or adjacent to urban areas
 - Industrial area locations for waste management uses
 - Sites for waste management use in rural areas

Policy W2: Sites for waste management use in or adjacent to urban areas

- 5.4.3 The following site is allocated for waste management use:
- WS8: Wellingborough - Sidegate Lane
- 5.4.4 This site was individually assessed as to whether it was appropriate (or is still appropriate) for a waste management use or an extension of such a use. Therefore, the inclusion of a site as an allocated site for waste management use indicates that it is considered by Northamptonshire County Council as appropriate for a waste management use.
- 5.4.5 A profile of the allocated site from this document is included in Appendix 4.

Northamptonshire Minerals and Waste Development Framework Control and Management of Development DPD (adopted June 2011)

- 5.4.6 The Control and Management of Development DPD contains specific policies for controlling Minerals and Waste development in the county and complements the strategic visions and policies that are set out in the MWDF Core Strategy.
- 5.4.7 Policy CMD7: Natural assets and resources requires that (where possible) waste development should achieve a net gain in natural assets and resources, through (inter alia)
- *delivery of wider environmental benefits in the vicinity where development would adversely affect any regional or locally designated sites or other features of local interest,*
 - *consider opportunities to contribute towards Northamptonshire Biodiversity Action Plan targets for habitats and species.*
- 5.4.8 Policy CMD8: Landscape character requires that waste development should seek to reflect Northamptonshire's landscape character. Waste development should mitigate potentially adverse impacts on the local character and distinctiveness of Northamptonshire's landscape where necessary during the development, operational life, restoration, aftercare, and after-use. Opportunities for enhancement should be maximised through restoration, aftercare, and after-use. Proposals will be required to undertake a landscape impact assessment to identify the potential impacts and any necessary mitigation measures.
- 5.4.9 Policy CMD9: relates to the historic environment and states that where heritage assets of significance are identified, proposals should seek to enhance Northamptonshire's historic environment through a number of measures such as careful management of heritage

assets and their settings, including the mitigation of potentially adverse impacts, and enhancement of specific features of the historic environment, including individual heritage assets or historic landscapes, as part of the restoration scheme.

5.4.10 Policy CMD10: Layout and design quality requires that the layout and overall appearance of waste management facilities will be required to demonstrate that the development (inter alia):

- *supports local identity and relates well to neighbouring sites and buildings,*
- *is set in the context of the area in which it is to be sited in a manner that enhances the overall landscape,*
- *incorporates specific elements of visual interest, and*
- *builds-in safety and security.*

5.4.11 Specific policy within the DPD dictates the need to identify the likely catchment area of waste sources for specific waste facilities. A Catchment Area Statement is provided in Appendix 5.

Northamptonshire Minerals and Waste Framework Partial Review Local Assessment of Waste Management Needs June 2012

5.4.12 This document is intended to provide an evidence base for local waste management needs to be incorporated into the partial review of the Northamptonshire Minerals and Waste Framework. It refers to the following types of waste:

- municipal solid (MSW)
- commercial & industrial (C&I)
- construction, demolition & excavation (CD&E) waste
- hazardous
- agricultural
- radioactive wastes (in particular low level (LLW) and very low level (VLLW) radioactive wastes)

5.4.13 It states the following with reference to waste currently being produced in Northamptonshire:

Northamptonshire currently produces 2.82 million tonnes (Mt) of various types of waste, this includes: 0.36 Mt of MSW (13%); 1.06 Mt of C&I waste (37%); 1.35 Mt of CD&E waste (48%); and 0.05 Mt of hazardous waste (2%). This waste is either disposed of to landfill or it is re-used, recycled, composted, or recovered through other forms of treatment (e.g. anaerobic digestion, Energy from Waste, etc).

5.4.14 These waste arisings are set to increase over the next 20 years, but with a higher proportion subject to treatment rather than disposal, with 'no growth' anticipated for CD&E waste.

5.4.15 Currently Northamptonshire is considered to be a net importer of waste.

of the total arisings for Northamptonshire 78% was treated or disposed of within the county with the remaining 22% exported to surrounding authorities ... The total amount of waste received by waste management facilities in Northamptonshire was 2.35 Mt in 2009 and 2.45 Mt in 2010. A breakdown of the 2010 data was not available, however the 2009 data indicates that 0.84 Mt

or 36% was imported from other authorities. This suggests that Northamptonshire is a net importer of waste – importing twice as much as it exports.

5.4.16 Northamptonshire has a permitted recycling capacity of 2.43 Mt, of which 1.68 Mt is processed in Materials Recycling and Transfer Facilities. However, it is noted that this total capacity is not currently being utilised, because not all permitted sites have been constructed and those that have are not necessarily operating to full capacity.

5.4.17 The current permitted capacity for recycling is considered to be sufficient to accommodate Northamptonshire's future waste arisings. However, the assessment recognises that Northamptonshire is a net importer of waste, and that this does not mean that no more permissions for such facilities will be granted in Northamptonshire. There is identified future capacity for inert recycling and advanced treatment, and allocated sites are considered suitable to accommodate this.

North Northamptonshire Core Spatial Strategy

Policy 11: Distribution of Jobs

5.4.18 b) Existing employment areas and allocated employment sites will be safeguarded for employment use, unless it can be demonstrated that an alternative use would:

- not be detrimental to the overall supply and quality of employment land within the district, and/or
- resolve existing conflicts between land uses.

Wellingborough East Development Framework, Supplementary Planning Guidance November 2003

5.4.19 The Wellingborough East Development Framework SPG provides plans for an urban extension to the east of Wellingborough on land south west of Sidegate Lane and west of A510. The land allocated for development extends from Wellingborough to Finedon Hill Farm and in close proximity to the junction of Sidegate Lane and A510. It is noted that Finedon Hill Farm is ~450m to the south west of the application site. The relationship between the proposed development and the Wellingborough East Development in environmental terms is considered further in the Environmental Statement.

5.5 Planning Policy Compliance and Considerations

Planning Policy Compliance

5.5.1 From national to local level policy, the proposal for the Resource Recovery Facility will fulfil a wide range of planning policy objectives, as set out in the following documents:

- National Planning Policy Framework (NPPF)
- Planning Policy Statement 10: Planning for Sustainable Waste Management
- Northamptonshire Minerals and Waste Development Framework Core Strategy DPD
- Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD

- Northamptonshire Minerals and Waste Development Framework: Control and Management of Development DPD
- Northamptonshire Minerals and Waste Development Framework: Development and Implementation Principles SPD
- Northamptonshire Minerals and Waste Framework Partial Review Local Assessment of Waste Management Needs June 2012

- 5.5.2 The inclusion of the site within the adopted Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD, demonstrates the suitability of the application site for waste development.
- 5.5.3 The site is included in the identified *sites for waste management use in or adjacent to urban areas*, as set out in the Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD. This recognises the site as appropriate *for a waste management use or an extension of such a use*.
- 5.5.4 The location of the site is deemed appropriate and in compliance with Policy CS2 of the Northamptonshire Minerals and Waste Development Framework Core Strategy DPD. Using Wellingborough as a location for a Resource Recovery Facility is acceptable in transportation terms, with appropriate links to the strategic highway network. Therefore the waste will be sourced within a suitable catchment area, which is set out in the Catchment Area Plan.
- 5.5.5 The building will be constructed with sustainability in mind, in addition there will be appropriate odour, dust and noise mitigation measures included within development to ensure that there would be no adverse impact upon the amenity of the wider locality. This is in compliance with Policy CS7 of the Northamptonshire Minerals and Waste Development Framework Core Strategy DPD.
- 5.5.6 It is noted that in order to facilitate the proposed development in planning terms that the extant permission for the landfill, including its subsequent restoration may require amendment or variation. Due to the complex nature of the planning history for the Sidegate Lane Landfill it is proposed that this requirement be reviewed in consultation with Northamptonshire County Council subject to the grant of planning permission for the proposed development.

6 CONSULTATION

6.1 Introduction

- 6.1.1 The Localism Bill brings the local community to the forefront of the planning system, it devolves greater powers to councils and neighbourhoods and gives local communities more control over planning.
- 6.1.2 Applications for waste processing of greater than 50,000 tonnes per year are considered significant applications, and are therefore required to undertake community involvement of a scale considered appropriate to the application. Correspondence was undertaken with Planning Officers at Northamptonshire County Council to agree the scope of the consultation, and to ensure that it is appropriate to the scale of the proposed development and to the local context. Consultation was undertaken with the local community during the preparation of the planning application and Environmental Impact Assessment. The extent of this consultation and outcomes is set out below and in Appendix 6.

6.2 Pre-Application Consultation

- 6.2.1 A pre-application meeting was arranged with Phil Watson, Peter Moor and Mark Chant from Northamptonshire County Council, the applicant and 2 representatives from GP Planning Ltd on 7 March 2012. The advice received and how it has been addressed is set out in Table 4.1.

Table 4.1 Pre-Application Response

PRE APPLICATION REQUIREMENTS	ADDRESSED
Demonstrate appropriate odour management	See Air Quality Assessment in Appendix 7.
Demonstrate appropriate dust management	See Air Quality Assessment in Appendix 7.
Noise assessment to be submitted	See Noise Assessment in Appendix 14.
Consultation with the Local Liaison Group	See Section 6.4 Community Consultation
Submission of a Screening Opinion	See Appendix 1.
Habitats Assessment undertaken	See Ecology Assessment in Appendix 10.
Consultation with Highways Authority	Not applicable due to the nature of identified potential impact.
Consultation with the EHO	See Noise Assessment in Appendix 14 and Air Quality Assessment in Appendix 7.
Provide enhancements in biodiversity.	See Ecology Assessment in Appendix 10.

6.3 Community Consultation

- 6.3.1 SITA UK identified and wrote to several key local stakeholders, including the closest neighbours, ward councillors and cabinet members, on 20 April 2012 to inform them that

the possibility of developing new recycling facilities at Sidegate Lane in the near future were being explored. As well as detailing the plans, recipients of the letter were invited to meet with or contact SITA UK directly should they wish to discuss the proposed development. A copy of the letter is provided in Appendix 6 and the letter was sent to the following people:

- Councillor John Bailey, Ward Councillor Finedon
- Councillor Malcolm Ward, Ward Councillor Finedon
- Mrs Emma Baker, Clerk Finedon Parish Council
- Mr Mick Parsons, Top Lodge Farm
- Carol Spring Farm
- Mrs A Groome, Ryebury Farm
- Councillor Ben Smith, Cabinet Member – Environment, Northamptonshire County Council
- Councillor Jim Harker, Council Leader, Northamptonshire County Council

6.3.2 In correspondence with Emma Baker, Clerk of the Finedon Parish Council it was confirmed that the proposed development would be discussed by members of the Parish Council at their meeting May 2012.

6.3.3 One written response to the initial consultation was received from Roy Boulton, Assistant Director for Environment and Planning for Northampton County Council, on behalf of Councillor Ben Smith, Cabinet Member for the Environment. Whilst noting the letter and the fact this application would help divert more waste from landfill, it also stated that Cllr Smith would be unable to discuss such matters with a waste management company in the midst of a procurement programme. This was noted and Cllr Smith (and also Cllr Jim Harker) were removed from the stakeholder list. A copy of this response letter is provided in Appendix 6.

6.3.4 Subsequently, a second letter dated 17 July 2012 was sent to the remaining stakeholders informing the recipients that, following the previous letter, SITA UK planned to submit an application for the new Resource Recovery Facility. It once again detailed the plans and invited stakeholders to contact SITA UK directly should they wish to discuss the proposals in more detail. A copy of this letter is provided in Appendix 6.

6.3.5 Information on consultation with statutory consultees can be found in each of the relevant technical appendices. In addition, GP Planning Ltd wrote to each of the environmental statutory consultees, and the environmental and local planning officers to inform them of the submission of the planning application.

6.4 Post Submission Consultation

6.4.1 Post submission of the planning application and subject to grant of planning permission it is the intention of SITA UK to resurrect the Sidegate Landfill Liaison Committee, which will extend its meeting agenda to include the proposed Resource Recovery Facility.

7 NEED AND ALTERNATIVES

7.1.1 This section sets out the need and alternatives for this proposal. As set out in Annex C of Circular 02/99 there is a need to include in the Environmental Statement an outline of the main alternatives, and the main reasons for the choice. The provision of assessing the need for a development is considered best practice.

7.2 Need

Introduction

7.2.1 The principle purpose of the proposed Resource Recovery Facility is to protect the environment by putting waste to good use by diverting it from landfill and processing it to provide a resource that can be recycled and re-used.

7.2.2 The RRF comprises three primary components:

- A Refuse Derived Fuel (RDF) manufacturing process
- A Road Sweeping Recycling facility
- A Soil Blending Operation

7.2.3 The need for each component of the development is discussed in the following sections.

Refuse Derived Fuel

7.2.4 Sidegate Lane Landfill is a strategic centre for disposing of non-recycled waste in Northamptonshire, managing around 350,000 tonnes of non-hazardous waste every year from homes and businesses within the Northamptonshire and Bedford area. Since taking over the operation of the landfill site in 1997, SITA UK has been working through the six phases of full containment landfilling, and over the past two years alone has invested over £220,000 on improving the infrastructure to ensure the site is managed as efficiently as possible with minimal impact on the local environment.

7.2.5 In order to minimise landfill volumes and to extract greater value from the waste, the RDF facility will process residual waste into a Refuse Derived Fuel for use in the cement manufacturing industry or energy from waste facilities. Metals will be recovered from the waste using mechanical separation and non-combustible organic fines will be removed as they are not conducive to manufacturing RDF.

7.2.6 Approximately 55% of the total anticipated throughput of the 100,000 tonne per annum RDF facility would be from municipal origin. It is envisaged that this waste would principally be arising from Wellingborough, East Northamptonshire and part of Kettering.

7.2.7 The remaining inputs would be a combination of Commercial and Industrial (C&I) wastes from SITA UK's own collection fleet, third party sourced or from neighbouring Local Authorities, such as Bedford Borough Council.

7.2.8 The scale and nature of the facility is not sufficient to divert all waste inputs from the landfill, and some of the wastes that are received (such as soils, bottom ash and canal dredging wastes) are not suitable for creating RDF. However, it is expected that around

one-third of the existing customer base would be diverted from the landfill into the RDF facility.

- 7.2.9 In order to maximise landfill diversion on behalf of customers it is expected that the 75% of the wastes processed within the RDF facility will be taken for further treatment outside the County and further refined as a fuel for use predominantly within the cement manufacturing industry as a replacement for fossil fuels. The remaining 25% of the waste would generally comprise fine fractions, rich in organics which would not be conducive to the manufacture of renewable fuel, so would therefore be landfilled or sent for further organic treatment (e.g by Anaerobic Digestion).

Road Sweeping Recycling

- 7.2.10 A significant proportion of road sweeping wastes are currently landfilled. As part of the development, SITA UK proposes to construct a Road Sweeping Recycling plant with the capacity to treat 25,000 tonnes of road sweeping wastes from municipal and commercial arisings, extracting materials including sand and aggregate, which can be used in manufacturing and construction projects instead of going to landfill. A nutrient rich filter cake will also be produced that can be blended with soils to create restoration materials suitable for use within the progressive restoration of the landfill site or on other land restoration projects. Floatable materials, including a high proportion of organic materials (such as leaf fall, verge cuttings, twigs and detritus) are also produced by the process which need further treatment to extract discarded plastic bottles and cans which are collected by road sweepers.

- 7.2.11 There is currently only one treatment facility of this type in commercial operation in the Midlands, also operated by SITA UK in Wolverhampton, which has a capacity of 50,000 tonnes. The facility in Wolverhampton recently received a Sustainability Award from the Institute of Civil Engineers in 2012 and is receiving inputs from Local Authorities including Walsall, Wolverhampton, Staffordshire, Warwickshire, Coventry and Derbyshire. All of this waste was previously disposed to landfill. The facility has result in approximately 95% of the total inputs being diverted from landfill. SITA UK is proposing to replicate the reference site in Wolverhampton at Sidegate Lane as a sub-regional treatment hub for up to 25,000 tonnes of road sweeping wastes, predominantly from municipal sources.

Soil Blending Operation

- 7.2.12 The soil blending operation is an ancillary function to the road sweeping recycling and RDF plants and will utilise and encourage the reuse of materials which might otherwise go to landfill and instead produce manufactured soils.
- 7.2.13 Sidegate Lane Landfill has an existing stockpile of 'base soil' or 'stripped' topsoil which will be used as a base material to which nutrient and organic rich material will be blended to create a nutrient and organic rich manufactured soil. The organic rich material will be sourced from the 'filter cake' and organic fraction from the Road Sweepings Recycling process.
- 7.2.14 The manufactured soils will then, when suitable, be used to restore the landfill site at Sidegate Lane.

Conclusion

- 7.2.15 Therefore, the need for the proposed Resource Recovery Facility, is rooted in the need for the operation of such facilities to enable objectives for the reduction in waste sent to landfill to be met.

7.3 Alternatives

- 7.3.1 The Town and Country Planning (Environment Impact Assessment) (England and Wales) Regulations 2011, indicate that where alternatives to a proposed development have been considered, then these should be outlined within the Environmental Statement.

Development Alternatives

- 7.3.2 Alternatives to this proposal include no development, partial development or development in alternative locations.

No Development

- 7.3.3 If there was no development at the application site the area would continue to be used for incidental open storage, car park and other ancillary functions associated with the existing Sidegate Lane Landfill site. It would also mean that the volume of waste material sent to landfill would continue at current rates, rather than diminishing as a result of the diversion of the waste stream in accordance with the waste hierarchy and the UK's Waste Strategy.

Partial Development

- 7.3.4 In this case, partial development would mean the implementation of only one of the three principal components of the Resource Recovery Facility. Each of the three components has synergies with the other, whether it be through exchange of inputs and outputs of the use of the infrastructure that would be put in place. Therefore, in operational terms and business development terms there would be no advantage to partial development of the site. In addition, partial development would not bring significant reductions in potential impacts on the environment as a result. The basic infrastructure would still be required, and similar environmental effects would be likely. Therefore, there would be no advantage to partial development and the consideration of need encourages full development.

Development in Alternative Locations

- 7.3.5 Development in alternative locations could include alternative locations within the wider Sidegate Lane Landfill site or other locations in the surrounding area. Each of these is considered.

Alternative Locations within the Wider Sidegate Lane Landfill

- 7.3.6 Options for the location of the development in other locations within the wider Sidegate Lane Landfill were considered, and a planning appraisal undertaken. In particular, the option for siting the proposed development on the area of woodland near the entrance from Sidegate Lane. This location had the advantages of being an area not previously worked or landfilled, close to the site entrance and associated facilities, and would not require engineering works to create a suitable development platform.

- 7.3.7 This option would require the majority of this woodland to be removed, with the exception of a narrow strip along the western boundary, which would principally encompass the outgrown hedgerow and a single line of trees. This would leave the remaining trees vulnerable to windthrow. Furthermore, the woodland is known to have some ecological value, and it plays an important role as a distinctive and characteristic feature of the landscape, visible from Wellingborough and the surrounding area, providing significant visual screening of the existing landfill operations.
- 7.3.8 A second option would provide for the location of the proposed development and associated infrastructure on the site used previously for composting operations, north of the application area. A number of points to consider include
- The existing primary access and access track could be utilised.
 - The existing weighbridge would have to be relocated.
 - The existing site offices and staff and car park facilities could be retained.
 - The woodland block, screening bund and tree planting could be retained and could continue to be managed.
 - There is existing hard standing which could be utilised by the proposed development.
 - There is an existing residential property to the north west which would be 125m from the site boundary.
 - The suggested site may only be able to accommodate a building of approximately 30m by 60m.
 - This area is known to be historic landfill.
 - There is an existing screening bund with tree planting to the south west, which would reduce the potential for visual impact of a proposed building within the locality.
- 7.3.9 Due to the proximity of the nearest residential property, this option was discounted.

Alternative Locations outside Sidegate Lane Landfill

- 7.3.10 Two alternative locations outside Sidegate Lane Landfill were considered including:
- Land within Finedon Industrial Estate, Wellingborough
 - Land at Neilson Sidings, Ise Valley Industrial Estate, Finedon Road, Wellingborough
- 7.3.11 Finedon Road Industrial Estate commenced development around 1965 and is subject to continued development today. The estate has excellent access direct onto the A509, the link road around Wellingborough, and indirectly to the A45, M1 and A14. Finedon Road Industrial Estate has many different uses within it, including concrete batching plant, waste wood recycling, waste recycling operation and a household recycling centre. Whilst the industrial estate had potential, it was considered unsuitable because of the lack of availability of land and the proximity of neighbouring land uses.
- 7.3.12 In Wellingborough there is a parcel of land known as the Neilson's Sidings. The railway sidings were opened in 1893 and abolished December 1987. This area is set within the industrial context of north east Wellingborough. The nearby industrial estates comprise a broad mix of factories and warehousing located within the confines of the Ise valley floor and tributary valley slopes. The London-Sheffield mainline railway is adjacent to the west. The railway runs broadly north-west to south-east and broadly defines the current eastern limits of Wellingborough. Beyond the mainline railway is the Finedon Road Industrial Estate, this contains numerous waste related activities. Access to Neilson's Sidings is currently gained from A510 through the Ise Valley Industrial Estate into land currently

operated by Lafarge Aggregates but could be obtained through Meadow Lane and the FedEx building yard.

- 7.3.13 This alternative location was discounted principally due to the access constraints posed by two additional parties controlling land which facilitates access to the site. Therefore, deliverability of a proposed development at this location is not achievable.

8 AIR QUALITY AND ODOUR

8.1 Introduction

8.1.1 This chapter of the Environmental Statement assesses the potential impact of dust and air quality from the development and operation of the proposed Resource Recovery Facility at Sidegate Lane. A copy of the Air Quality Assessment can be found in Appendix 7.

8.2 Planning Policy

8.2.1 National Planning Policy Framework March 2012 (Ref 2) states that *local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes.*

8.2.2 Wellingborough Borough Council Local Plan Alteration Policy E9 states that: Development will not be permitted which is:

Likely to result in unacceptable levels of pollution by reason of noise, vibration, smell, fumes, smoke, soot, ash, dust, grit, effluvia, leachate or other emissions by land water or air; or likely to prejudice the use of the land in the vicinity reserved for other uses, or Incompatible with nearby uses.

8.2.3 Wellingborough Borough Council has not produced a Local/Regional Air Quality Strategy.

8.2.4 There are no areas within the Borough which are close to the air quality strategy objectives.

8.3 Assessment Methodology

8.3.1 The Air Quality Assessment has been undertaken using information from a variety of sources and has included:

- a review of the current air quality objectives and guidelines which apply to the pollutants with the potential to be released from the proposed facility;
- a review of the existing ambient air quality conditions at and surrounding the Site;
- a review of construction information, plant, activities and environmental management controls likely to be employed during the facilities construction phases;
- a qualitative review of the predicted traffic generated from the proposed development on the local road network and its potential impact on local air quality;
- a review of the development proposals and existing potentially sensitive receptors; and
- a quantitative assessment of the potential for odour and dust generation from the proposed development to impact on local sensitive receptors.

8.3.2 The potential air quality effects of changes in road traffic pollutant emissions at sensitive receptors may be assessed using the DMRB air quality screening methodology. The proposed operations would have few local sensitive receptors either in proximity to the site itself or along its approach roads.

- 8.3.3 The risk of potential impact will be dependent upon the sensitivity of the site location and its neighbours. Environment Agency guidance used in environmental permits usually consists of two elements:
- the odour boundary condition, which specifies the outcome which the operator must achieve (i.e. no pollution beyond the site boundary); and
 - a condition requiring compliance with an Odour Management Plan (where activities are considered likely to give rise to odour).
- 8.3.4 The Environment Agency Guidance Document M17 Monitoring of particulate matter in ambient air around waste facilities (Ref. 21) states that, in relation to waste facilities which handle household and commercial waste, the most predominant particle-phase contaminants likely to be encountered comprise deposited dust and suspended particulates.
- 8.3.5 Premises and occupants within 100m of a construction site are generally considered to experience the most significant effects from construction dust. The risk of potential dust impacts will be dependent on proposed site activities and the sensitivity of the site location and its neighbours.

8.4 Baseline Conditions

- 8.4.1 A desk study was undertaken which consisted of:
- a review of air quality data for the area surrounding the site, including data from the DEFRA web pages, the Environment Agency's website and BCW Air Quality Review and Assessment reports/monitoring data; and
 - a review of the site and its surroundings to confirm the location of receptors that may be sensitive to changes in local air quality.
- 8.4.2 A summary of NO₂ diffusion tube monitoring data published by BCW in its June 2011 Progress Report (Ref 24) is presented in Appendix 7, Table 7. Few sites are located in proximity to the proposed site, suggesting this area is not considered an air quality priority.
- 8.4.3 Air quality modelling undertaken on behalf of the Council determined that no Air Quality Management Areas need be declared for Wellingborough with regard to NO₂ and that there were no areas at risk of exceeding the air quality objective for NO₂. Similarly, no areas at risk of exceeding the air quality objective for PM₁₀.
- 8.4.4 Historically, composting and leachate treatment operations have given rise to odour detection and complaints. Consequently, an unannounced site visit was carried out to carry out visual and olfactory assessments. Local air quality and odour was dominated by agricultural activities. No major industrial emissions to air were detected during the visit.

8.5 Identification and Evaluation of Key Impacts

- 8.5.1 The construction works will largely comprise site clearance, the formation of concrete pads, drainage works and erection of the main building. Prevailing winds with the potential to re-suspend dust are primarily from the south and west, carrying suspended particulates away from potential sensitive receptors.

- 8.5.2 Given the relatively small scale of the construction operations and that the nearest sensitive receptor is some 150m north west of proposed site excavations, separated by a 3m soil bund, the potential for dust nuisance impacts associated with construction activities is considered to be negligible.
- 8.5.3 All traffic will access the site along existing paved roadways. Some transfer of materials from vehicles leaving the site during the construction works is possible. In the absence of mitigation, there is the potential for minor, localised and temporary adverse effects on the roads accessing the site.
- 8.5.4 It is expected that up to 40 HGV movements per day would be anticipated throughout the development programme. This is considered an insignificant amount of HGV vehicles given the existing flows of the adjacent roads, hence construction traffic would be likely to have a negligible effect on local air quality.
- 8.5.5 The volumes of traffic predicted for the operation of the proposed development is well below the Highways Agency criteria for developments to impact significantly on air quality. Consequently, operational traffic would be likely to have a negligible effect on local air quality.
- 8.5.6 Soil blending utilises natural topsoil, subsoil, compost, sand, overburden, quarry fines, recycled soil from for example vegetable washing, soil reclaimed from inert development sites and utility works and washed and screened material from road sweepings treatment plants. Raw materials will be stored in a number of bays divided using concrete pushwalls prior to mixing.
- 8.5.7 All of the materials proposed for storage outdoors have a low odour potential. Consequently, the potential for odour impact associated with the soil blending operations is negligible.
- 8.5.8 Fresh road sweeping materials are relatively odourless even when stored for several weeks, and have been stored on site without off site impact. Processing, which included washing, screening, separation and compaction into a solid cake gives rise to odourless materials which can be stored long term without the potential for odour generation. Given that the main separation process is undertaken indoors and that the washed products are non odorous, the potential for odour impact off site associated with the road sweepings recovery operations is negligible.
- 8.5.9 The RDF plant would process residual wastes collected primarily from commercial and industrial clients together with some municipal solid wastes. The materials would be screened, shredded, separated and baled for transfer off site within an enclosed building. Industrial and commercial wastes have a low dust and odour potential. Municipal waste only has the potential for odour generation when stored long-term. However, all materials would be delivered, screened, sorted and baled within seven days, minimising the potential for odour generation. All operations including delivery and storage would be undertaken within a purpose provided building. The building will be provided with roller-shutter doors that remain open throughout the working day on the southern and eastern elevations. The building will be provided with atomised dust and odour suppression equipment located at all entrances to prevent odour breakout.

8.5.10 The facility is located in a rural area with only one residential property within 130m of the site boundaries. As these wastes have a low dust and odour potential, there would be no long-term storage of wastes on site and the nearest sensitive receptors are some distance from waste management operations, the potential for dust and odour impact associated with the RDF facility is negligible.

8.6 Cumulative Impacts

8.6.1 There are no cumulative impacts relevant to this proposed development.

8.7 Mitigation

8.7.1 A range of environmental management controls should be developed to prevent the release of potentially contaminated dust entering the atmosphere and/or being deposited on nearby receptors. Such measures, which will be adopted and secured through planning obligations and/or appropriate planning conditions.

8.7.2 Given the number of vehicle movements to and from site and their distance from sensitive residential receptors, a negligible air quality effect is predicted along approach routes. As such, no mitigation measures are required.

8.7.3 All incoming vehicles would be checked by the site operator to ensure that the wastes comply with the waste types documented, and as allowed by the pre-requisite Environmental Permit.

8.7.4 Wastes from commercial and industrial clients for separation and segregation prior to transfer off site will be delivered treated and stored in an enclosed building. There is a low potential for emissions to be generated during the waste separation and transfer operations. Nevertheless, the proposed Resource Recovery Facility incorporates a number of measures to minimise dust generation.

8.7.5 As a precautionary measure, the RDF building would be provided with dust and odour atomisation sprays located in proximity to all building entrances, to be used when odour or dust is detected outside of the RDF building.

8.8 Residual Impacts

8.8.1 The potential impacts identified above remain.

8.9 Conclusions

8.9.1 Given the number of vehicles accessing this site during both construction and operation and the lack of sensitive receptors bordering the site and along its approach roads, a negligible air quality effect is predicted at local receptors.

8.9.2 The site operations would be subject to control under its Environmental Permit regulated by the Environment Agency.

- 8.9.3 The materials delivered to site for sorting and separation in the RDF prior to transfer off-site for recycling are not normally considered high risk in regard of dust and odour generation. All site separation and sorting operations would be conducted within an enclosed building, provided with appropriate dust and odour control.
- 8.9.4 There would be no long-term storage of municipal/commercial waste materials on site. The nearest potentially sensitive receptor is located some 140m north west of the proposed site boundary, approximately 150m from the enclosed RDF buildings and some 200m from any open doors. Consequently, given effective management and good housekeeping, it is expected that the construction and operation of the proposed Resource Recovery Facility will not impact on local air quality.

9 ARCHAEOLOGY

9.1 Introduction

9.1.1 This chapter of the Environmental Statement assesses the impact on archaeology of the proposed Resource Recovery Facility at Sidegate Lane. A copy of the Heritage Assessment can be found in Appendix 8.

9.2 Planning Policy

9.2.1 Relevant planning policy is set out in the following:

National Planning Policy

- Annex 2 the National Planning Policy Framework (NPPF)

Regional Planning Policy

- East Midlands Regional Plan

Local Planning Policy

- Policy CMD9 of the Northamptonshire Minerals and Waste Development Framework Control and Management of Development DPD
- Northamptonshire Minerals and Waste Development Framework Core Strategy DPD

9.3 Assessment Methodology

9.3.1 The assessment of heritage assets considers the following:

- archaeological finds and features within the proposed development area;
- archaeological and historical evidence within a study area some 500m from the proposed development site; and
- regional information to identify patterns of past activity which might contribute in assessing the proposed development area's potential to contain significant heritage assets.

9.4 Baseline Conditions

9.4.1 The proposed development area comprises a polygonal area within a rectangular plot which is a reflection of the southern corner of a 19th century field. The application site is adjacent to the Sidegate Lane Landfill site.

9.4.2 Site inspection suggests significant disturbance and re-deposition related to the recycling processes in addition to the map evidence of former quarrying. It is probable that the application site was the location of former quarried areas in which clay waste was dumped as spoil. The land is slightly inclined from higher ground in the north (c.80m AOD) to lower ground (c.70m AOD) in the south.

9.4.3 The proposed development site lies within an area which is characterised by postmedieval fields established during the 18th century, but exploited for ironstone in the 20th century.

9.4.4 The historical and archaeological evidence, as well as the map regression exercise, suggests the site was probably in agricultural use throughout the Post-Medieval period but during the 20th century was part of the quarry and infrastructure of the Sidegate Lane Quarry. During the 21st century the site has been used for waste recycling.

9.5 Identification and Evaluation of Key Impacts

9.5.1 Carroll Spring Farmhouse (Grade II) lies within the study area, but the location of the new facility and the presence of the present day landfill site at Sidegate Lane indicates that there will be no impact on the significance of this asset due to the development.

9.5.2 There are no designated assets located within the proposed development area and there are no assets in which their settings or designed views will be adversely affected by the proposed development.

9.6 Cumulative Impacts

9.6.1 There are no cumulative impacts relevant to this proposed development.

9.7 Mitigation

9.7.1 Recent land use at the proposed site which includes quarrying, the trackbed of a quarry tramway and use as a re-cycling facility, has almost certainly removed all archaeological potential at the site consequently the Heritage Assessment recommends no further action.

9.8 Residual Impacts

9.8.1 The potential impacts identified above remain.

9.9 Conclusions

9.9.1 The proposed development area is in an area in which archaeological evidence reflects activity from the Neolithic to the medieval period. There will be no impact on heritage assets and, therefore, no mitigation measures are proposed or appropriate.

10 CONTAMINATION AND GROUND CONDITIONS

10.1 Introduction

10.1.1 This chapter of the Environmental Statement assesses the likely significant impacts of the proposed Resource Recovery Facility at Sidegate Lane in terms of contamination and ground conditions. The Phase 1 Site Investigation Report is presented in detail in the technical report at Appendix 9.

10.2 Planning Policy

10.2.1 The overarching legislation for the contaminated land regime, which implements the provisions of Part IIA of the Environmental Protection Act 1990 (as inserted by section 57 of the Environment Act 1995), came into force on 14 July 2000 together with recent amended regulations: Contaminated Land (England) (Amendment) Regulations 2012 and Contaminated Land Statutory Guidance (DEFRA, April 2012).

10.2.2 The National Planning Policy Framework (2012) is the main linkage between these regulations and has twelve core principals; two of which directly relate to potential for pollution and contaminated land with requirements for "*conserving and enhancing the natural environment and reduce pollution*" and setting out a preference for developments to be on land of "*lesser environmental value*"; and to encourage the effective use of land by re-using land that has been previously been developed (brownfield land), providing that it is not of high environmental value.

10.2.3 Clause 121 of the National Planning Policy Framework states that developments should also ensure that:

- the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;
- after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and
- adequate site investigation information, prepared by a competent person, is presented.

10.2.4 The development follows the core principals of developing land of 'lesser environmental value' and by re-using land that has been previously developed (brownfield land). This report is the first stage of the process to demonstrate that the requirements of Clauses 109 and 121 can be met. Further stages of site investigation will be carried out after planning permission has been granted for the development to ensure that the scheme meets the requirements of these clauses.

10.2.5 The findings and conclusions of the risk assessments have been set out and recommendations given for the proposed end use of industrial units. If there is a subsequent change in the proposed land use, the risk assessments and conclusions should be reviewed to determine whether they are still applicable.

10.3 Assessment Methodology

- 10.3.1 The assessment has been undertaken with due regard to current contaminated land guidance and the legislation listed above and has also been devised to comply with the relevant principles and requirements of a wide range of guidance including:
- BS5930:1999 as amended 2010: "Code of practice for site investigations";
 - BS10175: 2011 "Investigation of Potentially Contaminated Sites - Code of Practice";
 - CIRIA Report C552 (2001) "Contaminated Land Risk Assessment : A Guide to Good Practice";
 - DEFRA/Environment Agency Report CLR11 (2004) "Model Procedures for the Management of Land Contamination";
 - Environment Agency (2008) Groundwater Protection: Policy and Practice (GP3, Parts 1 to 4); and
 - Environment Agency (2010) Guiding Principles for Land Contamination, documents GPLC1, GPLC2 and GPLC3.
- 10.3.2 The potential environmental impacts have been assessed qualitatively by considering the sensitivity of the area in relation to geology, hydrogeology, human health and the general environmental setting of the site. The site's history has also been considered to inform the environmental risk assessment using a "source – pathway – receptor" approach as advocated by current UK Policy. The baseline ground conditions have been assessed by conducting a review of all available historical, geological and hydrogeological information and from a site walkover undertaken in May 2012.

10.4 Baseline Conditions

- 10.4.1 The assessment is based on desk study which includes the following data:
- Historical maps and aerial photographs;
 - Environmental data base searched;
 - British Geological Survey mapping;
 - previous site investigation report on an adjacent area to the north of the site; and
 - environmental monitoring information provided by SITA for the Sidegate Lane Landfill Site.

Geology

- 10.4.2 Based on a review of the BGS (1:50,000) Solid and Drift Map Wellingborough Sheet 186 and the available site investigation data, the presence of the following strata is anticipated within the site:

Table 10.1 Geological Strata

STRATA	AGE
Made Ground	Recent
Grantham Formation	Jurassic
Jurassic	

- 10.4.3 The Made Ground comprises varying materials and different thickness is expected within the site. This is due to the historical legacy of the mine and open cast working within the area, and landfilling. At the northern end of the site the Made Ground is anticipated to be

about 5 m thick and at the southern end of the site there will be less than 1 m of Made Ground.

10.4.4 Where present, the thickness of the Grantham Formation is anticipated to be relatively thin at the site. The Grantham Formation is typically an over-consolidated clay (locally becoming a weak mudstone) with thinner beds of argillaceous siltstone and sandstone, which is commonly ferruginous (rich in iron).

10.4.5 The Northampton Sand Formation is composed of green and brown ferruginous sandstones and limestones. This formation was mined in the area up to the 1960s for iron and steel production in Corby, Northamptonshire.

Hydrogeology

10.4.6 Reference to the Environment Agency (EA) Groundwater Aquifer, Quality and Vulnerability Maps indicates that the underlying bedrock is considered to represent a Secondary A Aquifer. The EA classifies Secondary A Aquifers as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

10.4.7 The Environment Agency have defined Source Protection Zones (SPZs) for 2000 groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. The site lies further than 1 km from the nearest SPZ. The closest groundwater abstraction is over 1.5 km from the site.

10.4.8 The site is in a nitrate vulnerable zone and the Environment Agency has classified the groundwater quality in the area as being good.

History

10.4.9 The following information has been gathered which detail relevant land use changes for the site and its surroundings based on previous editions of the County Series and Ordnance Survey dating back to 1887 together with 38 aerial maps of the site taken between 1944 and 1972.

10.4.10 The site is in an area where there has been quarrying dating back to 1900. A number of tramways have crossed the site to service the quarries and open cast ironstone works. Ironstone has been quarried at the site between the period from 1947 and the early 1960s. By 1968 the northern part of the site had been landfilled with this landfill extending to the north and northeast of the site. The investigation on the adjacent area is in this historic landfill. The south east quadrant of the development area is part of the western screening bund of SITA's Sidegate Land Landfill Site. This bund is formed from overburden from the former open cast works and was placed as part of the construction of the landfill site.

Contamination

10.4.11 Sources of contaminants identified to be of potential concern at the site are associated primarily with the landfill present below the site:

- Metals and metalloids / metal compounds;

- Ammonium, sulphate and chloride – common in landfill leachates, potential for creating acidic conditions (with iron chloride) within the fill and for its potential to release ammonia and ammonia compounds into controlled waters, aggressive conditions for below ground concrete;
- Hydrocarbons – petroleum hydrocarbons, BTEX, solvents;
- PAHs;
- Pesticides e.g. mecoprop;
- Asbestos Containing Materials (ACM) could be present on site;
- landfill gas or vapours from the landfill on site and the adjacent site; and
- radon gas from the Northampton Sand.

10.4.12 There are a range of potential receptors to the development, set out in Table 10.2 below:

Table 10.2 Potential Receptors to Development

ONSITE	OFFSITE
Construction Workers	Surface Water 170m south or 300m west
Site Users	Industrial / Commercial Adjacent Landfill
Buildings	Residential Ryebury Farm
Flora and Fauna	
Secondary A Bedrock Aquifer	

10.4.13 There are various routes by which a potential contaminant may reach a receptor. For example, in areas where contaminated material is exposed, dermal contact with the material, inhalation or ingestion of dust may occur.

10.4.14 The majority of the site is currently not covered in hard standing, but has a cover of granular material or woodchip. This currently breaks many pathways (such as dermal contact, inhalation or ingestion of dust) with potentially contaminated material underneath. During the construction works there will be excavations into the potentially contaminated soils so there will be an elevated risk during the construction works to humans working on site during construction and people in neighbouring land and ecological receptors. However, after the facility has been built people working on site and people in neighbouring land and the ecology are unlikely receptors because the whole of the development area will be covered in hard standing or a landscaped screening bund. The hard standing and screening bund will both break the majority of pathways (e.g. ingestion of dust, direct contact etc.) from non-volatile contaminants. For volatile contaminants the buildings will have to incorporate full radon protection measures and this together with the type of heavy duty industrial floor will provide a high level of protection against volatile contaminants and landfill gasses.

10.4.15 Inhalation or ingestion of dust and water could occur during the construction and development phase at the site. Pathways from dermal contact with soil and groundwater may also arise. It is considered that the risk of short term exposure for ground workers and other construction workers is relatively low unless there are asbestos fibres in the Made Ground.

10.4.16 It is considered that the site is very unlikely to pose a risk to controlled surface waters as there are no direct pathways; so this will not be considered further.

- 10.4.17 Based on the results of the site investigation on the adjacent area and SITA's environmental monitoring data, it is unlikely that there will be a significant source of contaminants present on the site. This is because on the adjacent site to the north high concentrations of contaminants were not detected and it is anticipated that similar concentrations of contaminants will be present below the development. A site investigation is required in order that this can be confirmed and this will be carried out after planning permission has been granted for the development. This will ensure that there will be a negligible risk to humans and ecology from contaminants in the soil. It should be noted that no testing was carried out previously for asbestos containing materials or discrete asbestos fibres and none were identified during the investigation.
- 10.4.18 Analysis of groundwater from wells around the perimeter of the development site indicate elevated concentrations of ammoniacal nitrogen, chloride, sodium and sulphate. However as the direction of groundwater flow is to the north it is towards a much larger area of a historic unlined landfill so the elevated concentrations of the landfill related contaminants below the developments at this site will not be significantly detrimental to the quality of groundwater immediately down gradient of the site. Therefore the contaminants present in the groundwater below the site are likely to have a negligible effect on quality of groundwater down gradient of the site. Therefore this will not be considered further. However, it should be noted that there are no chemical test results on groundwater samples for arsenic, petroleum hydrocarbons or for pesticides and it is recommended that the groundwater below the development site is tested for these compounds.
- 10.4.19 In addition to the above, the vertical leaching of contaminants from the Made Ground/Landfill on site into the groundwater will be dramatically reduced after construction of the development because the site will be almost all covered with hard standing.
- 10.4.20 There are elevated concentrations of landfill type gasses at the site and the site is in an area where elevated radon concentrations occur.

Ground Stability

- 10.4.21 Due to the presence of up to 5 m of landfilled material below the main building on the site there is potential for unacceptable total and differential settlements for the main building. For the site offices there is less than 1 m of Made Ground but the natural ground there will be a clay and as there are trees adjacent to this building there is potential for shrinkage of the clay which can lead to unacceptable deformation of the ground.
- 10.4.22 In order to create a level formation for the development in the southeast quadrant of the site excavations will be required into the toe of the western screening bund of the landfill. This excavation could cause instability of this 13 m high slope.

10.5 Incorporated Enhancement and Mitigation

- 10.5.1 The hard standing and the new screening bund will act to break many potential pathways from contaminants in the ground and receptors. This will reduce the risk from non-volatile contaminants to humans (both on and offsite) and the risk to groundwater and to ecology.

10.5.2 With regard to ground gas conditions it is recommended that Characteristic Situation 3 conditions should be assumed at this stage for preliminary design purposes. However it is recommended that further gas monitoring including flow rates is required. From Table 2 of BS8485:2007 with Characteristic Situation 3 conditions and for an industrial building, two points of remediation are required. From Table 3 of BS8485:2007 the two points can be achieved by adopting the following for the development:

- Reinforced concrete ground bearing foundation raft with limited service penetrations that are cast into slab – 1.5 points;
- Taped and sealed membrane to reasonable levels of workmanship/in line with current good practice with validation, gas membrane (recommend proprietary reinforced gas membrane) sealed around service penetrations, membrane to extend across wall cavities – 0.5 points.

10.5.3 The development should also have full radon protection measures in accordance with BRE Report 211. It should be noted that this applies both to the main RDF building and the site office building.

10.5.4 All below ground concrete is potentially at risk due to the existing concentrations of sulphate and ammonia in the ground and this concrete should be designed to meet the requirements of ACEC Class AC-2.

10.5.5 Due to the presence of up to 5 m of landfilled material which is potentially compressible, it is proposed that the main building on the site will have deep foundations (piles or vibro-stone columns). The depth of the foundations for the site offices will be deep enough so that they are taken below the level of moisture content variations so this building is not affected by clay shrinkage.

10.5.6 In order to create a stable slope when excavating into the toe of the western screening bund of the landfill to form a level formation for the development mitigation works will be required to ensure the long term stability of the slope. In order to ensure stability of this slope one of the following two mitigation measures will be incorporated into the development:

- Construction of a retaining wall at the toe of the slope to form a stable toe, it is anticipated that a reinforced soil wall would be more economic than a concrete or steel retaining wall;
- Strengthening the toe of the cut slope by installation of soil nails into the cut slope.

10.6 Identification and Evaluation of Key Impacts

10.6.1 The results of the assessment of existing data and the associated risk assessments indicate that there is likely to be no significant source of contaminants present at the site so there will be a negligible risk to all receptors including humans, controlled waters and ecological receptors. However, site specific site investigation will be carried out after planning permission has been granted to confirm the ground conditions are as anticipated. Ground gas protection measures will be required for the main RDF building and the site office.

10.6.2 The geotechnical design of the foundations of the buildings and the excavation of the toe of slope will ensure stability.

10.6.3 With the above mitigation measures in place there will be no significant impacts due to geology, hydrogeology and ground conditions on potential receptors both onsite or offsite.

10.7 Cumulative Impacts

10.7.1 There are no cumulative impacts relevant to this proposed development.

10.8 Mitigation

10.8.1 During the groundworks stage of the construction, the contractor shall carry out appropriate precautions to prevent dust such as dampening down haul roads and stockpiles in dry weather, reducing the speed of vehicles etc. This will ensure that there is no risk to receptors from fugitive dust.

10.8.2 No additional mitigation is required.

10.9 Residual Impacts

10.9.1 The results of the assessment of existing data and the associated risk assessments indicate that there is likely to be no significant source of contaminants present at the site so there will be a negligible risk to all receptors including humans, controlled waters and ecological receptors. However, site specific site investigation will be carried out after planning permission has been granted to confirm the ground conditions are as anticipated. Ground gas protection measures will be required for the main RDF building and the site office. For preliminary design purposes it is recommended that these are designed to meet the requirements of both CS3 conditions due to landfill type gases and meet the required full protection measures for radon.

10.10 Conclusions

10.10.1 The development follows the core principals of the National Planning Policy Framework developing land of 'lesser environmental value' and by re-using land that has been previously developed (brownfield land).

10.10.2 The development incorporates a number of mitigation measures which will ensure that the development can be build and operated safely without significant risk to onsite or offsite receptors.

10.10.3 Notwithstanding the above it is proposed that site specific site investigation will be carried out after planning permission has been granted for the development to ensure that the scheme meets the in order to provide confirmation of the following criteria:

10.10.4 The concentration of potential contaminants in the ground are as anticipated from investigations on the adjacent area (both concentrations of contaminants in soil and groundwater to be assessed including testing for the presence of asbestos which was not tested for in previous investigations).

- The ground gas conditions at the locations of the proposed buildings will be confirmed.

- To provide confirmation of geotechnical design parameters so that the design of foundations and slope retaining works can be optimised to provide economic and safe designs.

11 ECOLOGY AND TREES

11.1 Introduction

11.1.1 This chapter of the Environmental Statement assesses the impact on ecology of the proposed Resource Recovery Facility at Sidegate Lane. A copy of the Ecological Impact Assessment can be found in Appendix 10. In addition, a copy of the Tree Survey Report can be found in Appendix 11.

11.2 Planning Policy

11.2.1 Relevant planning policy is set out in the following:

National Planning Policy

- National Planning Policy Framework (NPPF)

Local Planning Policy

- Wellingborough Local Plan
- Policy CMD7 of the Northamptonshire Minerals and Waste Development Framework Control and Management of Development DPD
- Northamptonshire Minerals and Waste Development Framework Core Strategy DPD

11.3 Assessment Methodology

Desk Study

11.3.1 The Northamptonshire Biodiversity Records Centre was contacted to obtain records that it holds for protected/notable species and non-statutory sites of nature conservation importance from the site and the surrounding area (within a 1km search radius around grid reference SP 915 701).

11.3.2 The Multi-Agency Geographic Information for the Countryside and Natural England websites were searched for information regarding internationally protected sites within 5km of the survey area and statutory sites of nature conservation importance within a 1km radius of the site.

Field Surveys

11.3.3 The following field surveys were undertaken on 17th May 2012:

- Phase 1 Habitat Survey
- Bat Survey
- Great Crested Newt Assessment
- Badger Survey

Assessment Methodology

11.3.4 The assessment methodology for the assessment follows the Guidelines for Ecological Impact Assessment developed by the Institute of Ecology and Environmental Management

(IEEM 2006). The objective of the guidelines is to promote a scientifically rigorous and transparent approach to Ecological Impact Assessment (EcIA).

11.4 Baseline Conditions

Desk Study

Upper Nene Valley Gravel Pits SSSI/SPA/Ramsar Site

- 11.4.1 The Upper Nene Valley Gravel Pits SSSI, Special Protection Area (SPA) and Ramsar Site is located approximately 2km to the south of the site, within the valley of the River Nene. The SSSI/SPA/Ramsar Site is internationally important for its breeding bird assemblage of lowland open waters and their margins (including the largest nesting colony of grey herons *Ardea cinerea* in Northamptonshire), wintering waterbird species, an assemblage of over 20,000 waterbirds in the non-breeding season and a rare example of wet floodplain woodland.

Finedon Top Lodge Quarry Site of Special Scientific Interest

- 11.4.2 Finedon Top Lodge Quarry Site of Special Scientific Interest (SSSI) is located just over 1km to the south-east of the site boundary. This SSSI is of considerable geological interest.

Finedon Mines County Wildlife Site

- 11.4.3 The Finedon Mines County Wildlife Site (CWS) is located approximately 600m to the north-east of the site boundary. The CWS is a long-disused ironstone mine with planted conifers, some broad-leaved species and a small remaining area of calcareous grassland, now heavily invaded by scrub.

Sidegate Lane Potential Wildlife Site

- 11.4.4 It should be noted that Sidegate Lane Landfill Site has been identified by the Northamptonshire Biodiversity Partnership as a Potential Wildlife Site. Part of this Potential Wildlife Site lies within the site boundary, namely the area of young plantation woodland within the south-eastern area of the site. There is no citation available that explains the reason for this potential designation.
- 11.4.5 The Proposals Plan of the Borough of Wellingborough Local Plan shows the eastern part of the site forming part of a Site of Nature Conservation Importance (SINC). However, the boundaries of this SINC are different to the boundaries of the Potential Wildlife Site shown by the Northamptonshire Biodiversity Partnership/Northamptonshire Biodiversity Records Centre. The Northamptonshire Wildlife Trust has confirmed that this is likely to be a result of erroneous information on the Proposals Plan and this specific SINC no longer exists.
- 11.4.6 The ecological value of the Sidegate Lane Potential Wildlife Site is unknown and no information on this site has been provided by the Northamptonshire Biodiversity Records Centre. However, this is not considered to be a significant issue with regard to the ecological impact assessment presented within this report. This is due to the fact that the proposals are considered to have very low ecological impact overall and that the habitats within the application site are of inherently low ecological value in general, as the following sections describe.

Protected/Notable Species

Birds

11.4.7 Great tit and robin have both been recorded from the local area. These are both common and widespread species.

Fish

11.4.8 Bullhead and eel have been recorded from the River Ise, to the north-west of the site. There are no running water habitats within the site that could support these species.

Plants

11.4.9 Four uncommon species of plant have been recorded within the local area surrounding the site, although none of these records pertains specifically to areas of land found within the site. These plant species include hound's-tongue, field gromwell, tubular water-dropwort and hairy buttercup. None of these species have been recorded from the site and the habitats within the site are considered to be largely unsuitable for these plants.

Field Surveys

Habitats

11.4.10 The following habitats occur within the site or along the site boundaries:

- Hard-standing and bare ground
- Buildings
- Tall ruderal vegetation
- Woodland
- Woodland plantation
- Planted scrub and grassland
- Standing water
- Hedgerows

Bats

11.4.11 There are no buildings or mature trees within the site which could offer shelter to roosting bats. The metal portacabin buildings offer no obvious places where bats could shelter within internal spaces or the fabric of the buildings. Although the hedgerows, grassland and young woodland may offer some areas of suitable foraging habitat to commoner bat species, the site is dominated by hard-standing and is unlikely to be a significant feeding area for the local population of bats.

Badgers

11.4.12 No badger setts are located within the site boundary, or within the immediate environs of the site, and there is no evidence of badger activity within the site.

Amphibians

11.4.13 There are no aquatic habitats within the site or adjacent to the site boundary which are considered to be suitable for breeding great crested newts and other amphibians. The Habitat Suitability Index for the lagoon has been calculated at 0.36 which indicates that the waterbody is 'poor' as a potential breeding site for great crested newts.

Reptiles

- 11.4.14 No reptiles were seen during the survey and the hard-standing and open bare ground areas of the site are not considered to be suitable for reptiles. There are no specific features within the site such as log piles, stone or rubble piles that reptiles could use for shelter and/or hibernation.

Birds

- 11.4.15 The young trees and shrubs within the site and the hedgerows present along the site boundaries are suitable habitats for nesting birds. A large rookery is present within the area of young ash woodland to the south-western side of the site. The lagoon is not considered to be suitable for wetland species of bird and no wetland birds were observed during the survey.

Other Species

- 11.4.16 No evidence of other protected species was noted during the field surveys.

11.5 Incorporated Enhancement and Mitigation

Habitats

- 11.5.1 New tree and landscape planting on the bund extension and within other areas of the site will comprise native species that are typical of the local area and which mimic the species composition of the existing plantation woodland. Additional native species, such as dogwood and wayfaring tree, will add to the species diversity.

Species

- 11.5.2 Woody vegetation will only be removed outside of the bird breeding season (avoiding March to August inclusive) to avoid any impacts on active birds' nests that may be present. Limited tree felling along the south-western boundary of the site (to create a new car parking area) will be undertaken in a sensitive manner in order to protect the nearby rookery. The young trees will be felled in such a way as to avoid disturbance to the rookery.

11.6 Identification and Evaluation of Key Impacts

- 11.6.1 A summary of the identified impacts with incorporated mitigation is presented in Table 11.1.

Table 11.1 Summary of Impacts

ECOLOGICAL RESOURCE	VALUE	IMPACT	
		Construction	Operation
Sites			
Upper Nene Valley Gravel Pits SSSI/SPA/Ramsar Site	International	None	None
Finedon Top Lodge Quarry SSSI	National	None	None
Finedon Mines CWS	County	None	None
Unidentified Potential County Wildlife Site	Local/County	Loss of habitat (considered insignificant)	None
Habitats			
Hard-standing and bare ground	Negligible	None	None
Buildings	Negligible	None	None
Tall ruderal	Negligible	None	None
Woodland	Local	None	None
Plantation woodland	Site	Loss of habitat (considered insignificant)	None
Planted scrub and grassland	Site	Significant positive effect	None
Standing water (lagoon)	Negligible	None	None
Hedgerows and site boundaries	Site	Loss of habitat (considered insignificant)	None
Species			
Bats	Negligible	None	Lighting of new facility may effect foraging/commuting bats
Badgers	Negligible	None	None
Amphibians	Negligible	None	None
Reptiles	Negligible	None	None
Birds (rookery)	Local to District	None	None
Other	Negligible	None	None

Upper Nene Valley Gravels Pits SPA/Ramsar Site

- 11.6.2 The main threat to the Upper Nene Valley Gravels Pits SPA/Ramsar Site is considered to be that of human recreational pressure. When considering the proposals, it is important to note that the development is for industrial usage, in line with the former use of the site, and there are no proposals to create dwellings within the site that would lead to an increase in human population within the local area.
- 11.6.3 In addition, the people who travel to the site will be doing so as part of the workforce and will be present on site to undertake their jobs. The proposals are for 12 permanent and 2 part-time staff. It is considered very unlikely that the workforce will use their breaks and spare time to travel to the SPA/Ramsar Site in order to use the site for recreation. If this were to occur, the number of people and the increase in human activity levels are likely to be insignificant in comparison to the human recreational pressure imposed by such urban areas as Wellingborough itself. In addition, considering that the site was previously used as a composting facility it is unlikely that its change of use to a resource recovery facility will result in a significant increase in the number of people within the workforce of the site.

11.6.4 With this in mind, there are no foreseeable impacts of increased visitor pressure on the SPA/Ramsar Site and the valued ecological resources of the SPA/Ramsar Site will remain unaffected by the future use of the site as a Resource Recovery Facility.

11.7 Cumulative Impacts

11.7.1 It is not considered that any cumulative impacts will occur with regard to the ecology of the site and the local area. The site was formerly used for industrial purposes and the adjacent landfill site is currently in use. Proposed use of the site as a Resource Recovery Facility is therefore considered unlikely to result in cumulative impacts such as increased disturbance to adjacent habitats of value or to cumulative habitat loss. Although vehicular movements to and from Sidegate Lane will increase as a result of the proposals, there are no foreseeable impacts of noise, movement and increased visitor pressure on nearby habitats of international ecological value, namely the Upper Nene Valley Gravel Pits.

11.7.2 The young plantation woodland to the east of the site, which will experience the most impact in terms of habitat loss, was planted as part of the overall landscaping scheme of the site and the adjacent landfill site. Its existence is therefore a direct result of the industrial use of the site and the adjacent areas. Loss of a proportion of this area is therefore not considered to a significant impact with regard to cumulative effects within the local area.

11.8 Mitigation

Habitats

11.8.1 Retained hedgerows, woodland and scrub should be protected from damage during construction in accordance with British Standard 5837:2012 *Trees in Relation to Construction*. Trees, shrubs and other woody vegetation should be removed outside the breeding bird season, avoiding March to August inclusive, to avoid any impacts on active birds' nests.

11.8.2 As an enhancement measure, it is recommended that several substantial log piles are created within retained and new areas of tree/scrub planting. The log piles will provide habitat for dead wood invertebrates, fungi and small mammals.

Species

11.8.3 External lighting will be avoided within the site, unless it is absolutely necessary for reasons of security and safety. If lighting is required, it should be kept at low level and at low intensity, with hoods and baffles used to direct the light to where it is required. As an enhancement measure, it is recommended that 4 bat boxes are erected on semi-mature ash trees within the ash woodland located outside the south-western site boundary.

11.9 Residual Impacts

Residual Impacts

11.9.1 Residual impacts taking into account incorporated and additional mitigation measures are set out in Table 11.2.

Table 11.2 Summary of Residual Impacts

ECOLOGICAL RESOURCE	ADDITIONAL MITIGATION	RESIDUAL IMPACT
Sites		
Upper Nene Valley Gravel Pits SSSI/SPA/Ramsar Site	None	None
Finedon Top Lodge Quarry SSSI	None	None
Finedon Mines CWS	None	None
Sidegate Lane Potential Wildlife Site	None	Loss of habitat (considered insignificant)
Habitats		
Hard-standing and bare ground	None	None
Buildings	None	None
Tall ruderal	None	None
Woodland	None	None
Plantation woodland	None	None
Planted scrub and grassland	None (beyond new planting proposals)	Significant positive effect
Standing water (lagoon)	None	None
Hedgerows and site boundaries	None	None
Species		
Bats	Sensitive design and use of external lighting Erection of bat boxes	Significant positive effect on roosting bats
Badgers	None	None
Amphibians	None	None
Reptiles	None	None
Birds (rookery)	None	None
Other	Creation of log piles	Significant positive effect (fungi & invertebrates)

11.10 Conclusions

11.10.1 In conclusion, the residual effects of the proposed development on the ecology of the site and the local area are considered to be minor and insignificant. There are no predicted direct or indirect impacts on valued habitats, protected or notable species. The ecology of the site is likely to remain unchanged during the operational phase and there are no foreseeable adverse effects as a result of increased disturbance to habitats within the immediate environs of the site.

11.10.2 In particular, the proposed development of a Resource Recovery Facility within the site will have no direct impacts on valued habitats used by wetland bird species. This is due to the absence of wetland birds from the site and the unsuitability of the lagoon habitat for species of wetland bird.

11.10.3 In addition, indirect effects of increased disturbance and recreational pressure on the SPA/Ramsar Site are very unlikely to occur. This is due to the distance of the site from the SPA/Ramsar Site, the nature of the proposed development and the unlikelihood of the workforce on site to add to recreational pressure off site.

11.10.4 Although there will be some small-scale habitat loss within the Sidegate Lane Potential Wildlife Site, this is not considered to be of significance when one considers the nature of this Potential Wildlife Site and the low ecological value of the specific habitat that is affected.

12 HYDROLOGY

12.1 Introduction

12.1.1 This chapter of the Environmental Statement assesses the likely significant impacts of the proposed Resource Recovery Facility at Sidegate Lane in terms of hydrology and flood risk impact. The Flood Risk Assessment is presented in detail in the technical report at Appendix 9. In addition, a Surface Water Drainage Design Summary is provided in Appendix 12.

12.2 Planning Policy

12.2.1 Relevant planning policy is set out in the following:

National Planning Policy

- National Planning Policy Framework (NPPF)

Local Planning Policy

- Policy CMD7 of the Northamptonshire Minerals and Waste Development Framework Control and Management of Development DPD
- Northamptonshire Minerals and Waste Development Framework Core Strategy DPD

12.3 Assessment Methodology

12.3.1 The assessment of flood risk is in accordance with NPPF Technical Guidance and BS8533: 2011 "Assessing and managing flood risk in development – Code of practice."

12.3.2 The FRA and drainage assessment will have three distinct components as follows:

- i) the assessment of flood risk;
- ii) development of a flood mitigation scheme combined with surface water drainage proposals together with any monitoring requirements; and
- iii) higher levels of FRA including The Sequential Test and The Exception test if required.

12.3.3 The significance of effects on surface waters and flood risk will be assessed through identification of potential receptors and analysis of their sensitivity through the baseline assessment. The baseline assessment will be completed through a desk study exercise. The likely effects would then be considered in terms of the potential changes to the baseline situation.

12.3.4 Sources used to inform the definition of the baseline conditions comprise:

- Environment Agency and British Geological Survey (BGS) information including flood maps, flood modelling results and flood history; and topographic survey.

12.4 Baseline Conditions

12.4.1 There are no surface water watercourses within the site. There is an existing lagoon, with the nearest major watercourse being the River Ise, which is located approximately 2 km to the south west of the site. The nearest named water feature is the Harrowden Brook 1 km to the west, and this has a "Grade A - Very Good" chemical status. The Harrowden Brook is a tributary of the River Ise. The nearest water feature is located approximately 160 m south of the site. About 310 m to the west of the site there is another tributary of the River Ise.

12.4.2 According to Environment Agency data the site lies outside Flood Zone 2 and 3 and is therefore classified as Flood Zone 1. Sites in Flood Zone 1 are considered to be at the lowest risk of flooding from the sea or rivers with a probability of 1 in 1000 or less (or less than 0.1%) per year. The site is also at an elevation of about 10 m above the nearest Zone 2 or Zone 3 flood risk zones and is more than 500 m from the nearest of these zones indicating negligible flood risk. Other information relating to the potential for flooding in the area is as follows:

- There are no flood defences or flood storage areas within 500 m of the site;
- The site is not located in an area identified as being at potential risk in the event of a reservoir failure;
- The site has not been subject to past flooding as recorded by the Environment Agency;
- the maximum BGS Groundwater Flooding Susceptibility within 50 m of the site is "Very Low;"
- there are no geological indicators of historic flooding within 250 m of the study site;
- the National Flood Risk Assessment (NaFRA) Flood Rating for the study site is "Negligible";

12.4.3 At the north western perimeter of the development site there is a significant risk of surface water (pluvial) flooding of an area about 30 m by 10 m as based on the JBA Pluvial Flood Maps produced for the Environment Agency in 2008. Pluvial flooding is defined as flooding caused by rainfall-generated overland flow, before the runoff enters a watercourse or sewer. In such events, sewerage and drainage systems and surface watercourses may be entirely overwhelmed. Pluvial flooding will usually be a result of extreme rainfall events, though may also occur when lesser amounts of rain falls on land which has low permeability and/or is already saturated, frozen or developed. In such cases overland flow and 'ponding' in topographical depressions may occur. The risk of this area flooding is classified as being "Significant" which indicates that this area would be expected to be affected by pluvial flooding in a 1 in 75 year rainfall event to a depth of greater than 0.1 m. The JBA maps were produced based on aerial LiDAR survey data and aerial photography and are not always completely accurate, particularly for small areas such as the area indicated in the development site.

12.4.4 Based on the site walkover and the topographic survey of the site, it is assessed that the area of the site indicated by the JBA map which could flood under a 1:75 year rainfall event is a relatively limited area and would be a narrow area at the edge of the existing hard standing. However, the part of the site which is more likely to have pluvial flooding is the ground about 50 m south of the area indicated in the pluvial flood map as this has a lower elevation. This area is also of limited extent and could be addressed as part of the drainage design for the development.

12.4.5 The proposal for the development will not be in any floodplains or similar high risk areas and there are no areas of high risk adjacent to the site. However, the proposed development will nearly treble the area of hard standing and buildings within the site compared to the current areas; this has been taken into account when designing the site drainage.

12.5 Incorporated Enhancement and Mitigation

12.5.1 TerraConsult has developed a surface water management scheme for the whole of SITA's Sidegate Lane Landfill site and this was issued to the Environment Agency in early 2012 prior to SITA planning the Resource Recovery Facility. This surface water management scheme has been designed in accordance with SuDS principals and would prevent the pluvial flooding of the area within the development boundary.

12.5.2 The surface water management scheme for the whole Sidegate Lane Landfill site requires relatively minor modification to incorporate the Resource Recovery Facility development. This is because the area of the Resource Recovery Facility is only about 6 % of the area of the proposed site-wide drainage scheme for the whole landfill site covered. Also the Resource Recovery Facility only doubles the area of hard standing compared to the whole site without this development.

12.5.3 It should be noted that the hard standing in the area of the soil blending area will not be included in the site's main surface water management scheme and will be drained separately to a below ground tank (or possibly an open lagoon). This is because the activities in this part of the development involve processing and blending soil so any incident rain has the potential to become contaminated and so it should not be combined with other non-contaminated drainage waters. The water from this tank will be collected and disposed of with the landfill leachate in accordance with current legislation.

12.5.4 The proposed surface water management scheme which has previously been submitted to the Environment Agency will have the following relatively minor changes in order to incorporate the Resource Recovery Facility:

- re-alignment of a number of ditches/swales and French Drains; and
- relocation of the previously proposed attenuation pond.

12.5.5 The previously proposed attenuation pond was located in the landfill site's western screening bund which is to the east of the development in an area which has been landscaped with a wide range of young but established trees and vegetation. The proposal for this attenuation pond would involve removal of a significant portion of this vegetation and existing habitats and would have a negative environmental impact. Therefore in order mitigate this detrimental effect on the ecology, an alternative location for the attenuation pond was sought in areas of lower ecological value. The new drainage proposal for whole landfill site has two attenuation ponds which will be formed in areas of lower ecological value as indicated in Drawing No 1601/2/002:

- North westerly attenuation pond located in an area adjacent to the north of the boundary for this planning application – this is located in an area which is currently grassed;
- Southerly lagoon to the east of this area of this planning application in an area where landfill restoration has not yet been completed.

12.6 Identification and Evaluation of Key Impacts

12.6.1 The Resource Recovery Facility is in a Zone 1 Flood Risk area so it has a low risk of flooding. As with most new developments it has a potential to increase the rate of surface water run-off and this can increase the risk of flooding occurring downstream of the site. However, through the use of a drainage scheme designed in accordance with SuDS principals there will be negligible impact to surface waters or flooding either on or off-site.

12.7 Cumulative Impacts

12.7.1 The proposed Resource Recovery Facility development will have a relatively minor cumulative impact. Preliminary drainage calculations have shown that:

- The critical storms are those with a 100 Year Return Period (with additional 30% added to rainfall intensity to account for climate change).
- The discharge rate at the outfall of the landfill site is unaltered from the original full site discharge rate by the Resource Recovery Facility development. It stays at 530 l/s which is just below the rural runoff rate of 531.9 l/s for a 100 yr return period storm.
- During/after the 100 year critical storm there will be a relatively small amount (750 m³) of off-site flooding (with relatively minor effects) from the whole landfill site with the Resource Recovery Facility contributing to less than 10% of this total. This is considered to be minor because the flood water will be contained in a low depression in a field and will not spread.

12.8 Mitigation

12.8.1 There could be a limited part of the site affected by surface water flooding but this risk could be mitigated through the drainage design for the development. The proposed development will significantly increase the area of hard standing relative to the present amount and this will also have to be taken into account as part of the drainage design for the development.

12.9 Residual Impacts

12.9.1 During/after the 100 year critical storm there will be a relatively small amount (750 m³) of off-site flooding (with relatively minor effects) from the whole landfill site with the Resource Recovery Facility contributing to less than 10% of this total. This is considered to be minor because the flood water will be contained in a low depression in a field and will not spread.

12.10 Conclusions

12.10.1 The site has a negligible risk from flooding from rivers as it is:

- in the lowest flood risk zone (Zone 1);
- more than 500 m from the nearest Zone 2 or Zone 3 flood risk areas;
- at an elevation of about 10 m above the nearest Zone 2 or Zone 3 flood risk areas.

12.10.2 The drainage for the site has been designed in accordance with SuDS principals and is linked to the surface water management plan for the whole landfill site is in the

process of being agreed with the Environment Agency. The drainage scheme for the whole landfill site will have a number of minor modifications in order to incorporate the Resource Recovery Facility development. During/after the 100 year critical storm there will be a relatively small amount (750 m³) of off-site flooding (with relatively minor effects) from the whole landfill site with the Resource Recovery Facility contributing to less than 10% of this total. This is considered to be a minor residual impact because the flood water will be contained in a low depression in a field and will not spread.

13 LANDSCAPE AND VISUAL IMPACT

13.1 Introduction

13.1.1 This chapter of the Environmental Statement assesses the likely significant impacts of the proposed Resource Recovery Facility at Sidegate Lane in terms of landscape and visual impact. The Landscape and Visual Impact Assessment is presented in detail in the technical report at Appendix 13.

13.2 Planning Policy

13.2.1 Relevant planning policy is set out in the following:

National Planning Policy

- National Planning Policy Framework (NPPF)

Local Planning Policy

- Wellingborough Local Plan
- Policy CMD8 of the Northamptonshire Minerals and Waste Development Framework Control and Management of Development DPD
- Northamptonshire Minerals and Waste Development Framework Core Strategy

13.3 Assessment Methodology

13.3.1 The LVIA has been undertaken in accordance with a range of relevant guidance documents and following a prescribed methodology. The primary guidance is provided by the Guidelines for Landscape and Visual Impact Assessment, Second Edition, published by the Institute of Environmental Management and Assessment and the Landscape Institute (2002).

13.3.2 In order to assess the impacts of the proposed development on the landscape resource (landscape character, landscape components and landscape designations) and visual amenity (representative viewpoints) the following are considered:

- Baseline conditions and sensitivity of the landscape resource and visual amenity
- The magnitude of change to the landscape resource and visual amenity as a result of the proposed development

13.4 Baseline Conditions

Landscape

13.4.1 The landscape baseline may be described in terms of the landscape character and landscape designations within the study area and landscape components within the application site.

Landscape Character

13.4.2 The site is located within the following character areas:

National Landscape Character

- Northamptonshire Vales No.89

Regional and Local Landscape Character

13.4.3 The Site is situated within Rolling Ironstone Valley Slopes Landscape Character Type (LCT No.4) which occurs in areas around main settlements such as Wellingborough and Irthlingborough.

13.4.4 Key landscape character features include:

- Broad valley slopes dissected by numerous tributary streams;
- Rolling landform, extensive views and sense of exposure on some prominent locations;
- Steep slopes adjacent to more elevated landscapes;
- Numerous water bodies including the county's largest reservoir;
- Productive arable farmland in medium and large scale fields predominates on elevated land although sheep and cattle pastures also prevalent, often in smaller fields adjacent to watercourses;
- Agricultural practices create a patchwork of contrasting colours and textures extending across valley slopes;
- Where broadleaved woodlands and mature hedgerow trees combine, these impart a sense of a well treed landscape;
- Hedgerows generally low and well clipped although intermittent sections show evidence of decline;
- Well settled with numerous villages and towns; and
- Landscape directly and indirectly influenced by the close proximity of many of the county's urban areas.

13.4.5 At a local level, the Site is found within the Irthlingborough Slopes Landscape Character Area No.4G.

13.4.6 Within the immediate setting, there is a combination of agricultural uses, mixed woodlands and hedgerows as well as industrial/commercial landuses. The landscape value relates to the intactness of the natural elements within the landscape, although these are balanced against those features such as the landfill site, industrial uses and so forth. On that basis, the value is predicted to be a Low-Medium.

Visual Environment

13.4.7 The site comprises a former recycling area now used for skip storage, and an area of young plantation on slightly sloping ground. The area of mature woodland to the south-west of the Site offers a substantive visual screen.

13.4.8 Young plantation woodland (which occurs within the site) continues to the east curtailing at the commencement of access tracks which serves Sidegate Landfill Site.

13.4.9 Agricultural land features to the west in the guise of medium and small scale fields (including paddocks), generally with hedgerow boundaries and field trees. Agricultural

fields also appear to the north, but are mostly of a large scale (irregular) pattern interspersed by thin linear tracts of mixed woodland on higher ground.

13.4.10 Further east (but still within close range) the landscape setting is dominated by the existing operational aspects of Sidegate Landfill Site.

13.4.11 The A510 (Wellingborough Road) passes c.140m west of the Site. During normal daytime hours this road appears to be particularly busy with general car and HGV traffic.

13.4.12 Sidegate Lane also appears within close distance of the Site and links with the access road to Sidegate Landfill Site. The Lane runs in a south-east to north-west direction towards the site (with the junction situated c.120m away from the site boundary). Sidegate Lane is also bordered by hedgerows and hedgerow trees in places linking with Mill Road to the south-east.

Visual Receptors

13.4.13 Residential properties and commercial buildings in proximity to the site:

- Carrol Spring Farm.
- Ryebury Farm - closest property to the Proposed Development.
- *The Water Garden* (Japanese Koi Carp Specialists) c.370m south-west, located along the A510.
- There are no residential properties east of the site within close range.

13.4.14 No public footpaths exist in close proximity to the Site.

13.5 Incorporated Enhancement and Mitigation

13.5.1 New tree and landscape planting on the bund extension and within other areas of the site will comprise native species that are typical of the local area and which mimic the species composition of the existing plantation woodland. Additional native species, such as dogwood and wayfaring tree, will add to the species diversity. The new tree and landscape planting will over time provide some visual screening of the proposed development.

13.6 Identification and Evaluation of Key Impacts

Landscape

Impacts on Landscape Character

13.6.1 In a local context in terms of the landscape character, the site is found within the Irthlingborough Slopes Landscape Character Area (No.4G). This has a predominantly agricultural character. However, it is currently influenced by the presence of Sidegate Lane Landfill, recontouring and progressive restoration.

13.6.2 The character of the immediate locality is not as strong as the wider area, and demonstrates a landscape context that is disrupted and disturbed from the natural pattern.

13.6.3 The character is assessed as having a Low to Medium level of sensitivity. This is likely to remain within and up to the site boundary, albeit the nature of the scene is less dependent upon the agricultural setting and is more dependent upon a static view of established woodland plantation and on peripheral landfill operations.

13.6.4 Overall, the predicted scale and location of the Proposed Development and in particular the situation of the Main Facility building will have a Small change. A small number of changes will occur to the landscape characteristics, having a Minor significance.

Visual Amenity

13.6.5 Impacts on visual amenity are set out in Table 13.1 below.

Table 13.1 Impacts on Visual Amenity

VIEWPOINT	LOCATION DESCRIPTION	RECEPTOR TYPE	SENSITIVITY	RANGE	MAGNITUDE OF EFFECT	SIGNIFICANCE OF IMPACT
1	From A510 South-west of the Site	Road users	Low	Mid	Medium	Minor-Moderate
		Residential (representative)/path users	Medium			Moderate
2	From A510/Sidegate Lane Road Junction	Road users/path users	Low	Close	Large	Moderate
3	From A510 Near Ryebury Farm	Residential	High	Close	Large	Major
4	From A510 (Ryebury Hill) North of the Site	Road users	Low	Mid	Small (winter)	Minor
5	From Great Harrowden Lodge Farmstead	Residential (recreational – golf course)	Medium/High	Long	Small/Very Small	Minor-Moderate
6	From Eastern Side of Redhill Way	Residential	Medium/ High (for direct view)	Long	Small/Very Small	Minor-Moderate
7	From Finedon Road (A5128)	Road users	Low	Mid	Very Small	Negligible or Minor
		Residential	Medium			Minor-Moderate (due to a direct view)
8	From Hill Top, Furnace Lane	Byway users	Low to Medium	Long	Very Small	Minor

13.7 Cumulative Impacts

13.7.1 It is not considered that any cumulative impacts will occur with regard to the landscape character of the site and the local area and the visual amenity of the local receptors. There are no known other similar types of development proposed within the area.

13.8 Mitigation

13.8.1 Mitigation of the proposed development would principally relate to measures to screen the main building. The proposed screen bund in the northern sector of the site is recognised as offering some beneficial screening of the storage and baling areas. Thus, future mitigation is likely to relate to two elements, firstly planting of trees and shrubs to establish a screen in the longer term, and secondly some additional mitigation may be achieved through cladding colour choice.

13.8.2 Planting mitigation measures could include:

- Establishing native broadleaved woodland on the screening bund.
- Continuing the planting southward from the screen bund to increase the width of the existing hedgerow and increase the proportion of high canopy trees such as Ash.

13.8.3 Cladding colour choice and thus mitigation, should relate to the Mid and Long range views, where the background to the main building comprises landform and wooded elements and as such a receding colour will have an important role in reducing the previously identified impacts. Single colour is likely to be more advantageous than dual colour between roof and façade.

13.9 Residual Impacts

13.9.1 The proposed mitigation will help to reduce the visual impact of the proposed development on the nearest residential receptor, at Ryebury Farm. However, it is not considered that this will change the identified impact level. Therefore, the potential impacts taking into account incorporated and additional mitigation measures remain the same.

13.10 Conclusions

13.10.1 The Proposed Development will have a high level of significance (up to a Major level) for the close range views immediately adjacent to the Site, such as from Ryebury Farm. The nature of the built form may not necessarily be associated with an adverse nature and is in many ways a commonly observed nature of development seen in the context of other farmsteads in the locality.

13.10.2 At a mid and long range the visual effects are more likely to have a Minor or Moderate consequence.

13.10.3 The LVIA has predicted worst case outcomes for the visual effects. By including additional mitigating measures such as supplementary boundary planting and screening, micro siting in relation to the main building and cladding colour; it is likely that some of

the predicted effects, particularly for the mid and long range views, can be further reduced in terms of the visual consequence.

13.10.4 Whilst at close range, mitigation may be achieved through a process of screening. In respect of mid and long range views, the cladding colour of the main building will have a substantive positive effect upon the visual consequence.

13.10.5 Closer range views may be associated with an adverse nature of effect. However, beyond close range, the nature of effect is more likely to have a neutral basis.

14 NOISE

14.1 Introduction

14.1.1 This chapter of the Environmental Statement assesses the likely significant impacts of the proposed Resource Recovery Facility at Sidegate Lane in terms of noise impact. The Noise Impact Assessment is presented in detail in the technical report at Appendix 14.

14.2 Planning Policy

14.2.1 The Government has recently removed the existing Planning Policy Guidance on noise, which was known as PPG24: 1994. The National Framework Planning Policy, which has recently been published states

*109. The planning system should contribute to and enhance the natural and local environment by:
preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability;*

14.2.2 The Noise Policy Statement for England (NPSE) – March 2010 has the following long term vision in policy aims:

Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development;

*avoid significant adverse impacts on health and quality of life;
mitigate and minimise adverse impacts on health and quality of life; and
where possible, contribute to the improvement of health and quality of life.*

Planning Policy Statement 10: Planning for Sustainable Waste Management (March 2011)

14.2.3 In terms of noise the statement under Annex E section j `Noise and Vibration` it simply states:

Considerations will include the proximity of sensitive receptors. The operation of large waste management facilities in particular can produce noise both inside and outside buildings. Intermittent and sustained operating noise may be a problem if not kept to acceptable levels and particularly if night-time working is involved.

The Borough of Wellingborough Local Plan (including Local Plan Alteration)

14.2.4 Wellingborough Borough Council Local Plan Alteration (Ref 3) covering the period to 2016 is largely restricted to a review of housing and employment policies and they relate to the town of Wellingborough Policy E9.

*Development will not be permitted which is:
Likely to result in unacceptable levels of pollution by reason of noise, vibration, smell fumes, smoke, soot, ash, dust, grit, effluvia, leachate or other emissions by land water or air or
Likely to prejudice the use of the land in the vicinity reserved for other uses, or
Incompatible with nearby uses.*

14.3 Assessment Methodology

- 14.3.1 Noise levels have been considered and assessed during the construction and the operational phases of the proposed development. Relevant and appropriate noise guidance and standards have been used to determine the noise impact and where appropriate amelioration measures provided to mitigate noise sources to acceptable and reasonable levels.
- 14.3.2 To determine any likely impact from noise it was necessary to establish the typical existing noise levels at the nearest residential property boundaries. This information helps determine any likely noise impact on nearest receptors to the site during the construction and operation of the proposed development.
- 14.3.3 The results of the noise survey have shown that residual and background noise is dominated by road traffic and occasional distant landfill activities.
- 14.3.4 The Environmental Health Officer at Wellingborough Borough Council has been formally consulted for the assessment to seek advice in respect of appropriate noise criteria and baseline methodology.
- 14.3.5 The impact of site activity noise at the nearest residential properties to the northwest, southwest and southeast (i.e. off Wellingborough Road and Sidegate Lane) were assessed.

14.4 Baseline Conditions

- 14.4.1 To determine any likely impact from noise it was necessary to establish the typical existing noise levels at the nearest residential property boundaries. This information helps determine any likely noise impact on nearest receptors to the site during the construction and operation of the proposed development.

14.5 Incorporated Enhancement and Mitigation

- 14.5.1 Incorporated enhancement and mitigation is not application. Mitigation measures will be applied considering the detailed design of the proposed main building. These are detailed further in Section 14.8 and in Appendix 14.

14.6 Identification and Evaluation of Key Impacts

- 14.6.1 The report predicts the impact of noise from fixed and mobile plant that would be used at the proposed site during the construction and operational work activities. The noise assessment concludes the following:

- The highest predicted noise levels from the site plant operations would meet relevant and appropriate standards and guidelines for noise (i.e. BS4142: 1997 and WHO guidance).
- Noise levels from site operations would be lower than existing background noise levels (L90) and well below residual noise levels (Leq).

14.7 Cumulative Impacts

14.7.1 The cumulative effect of the proposed Resource Recovery Facility fixed and mobile plant operating together with on-site HGVs has been assessed. The results show that the cumulative impact magnitude relative to nearest sensitive receptors would be negligible and subjectively barely perceptible.

14.8 Mitigation

14.8.1 Best practice would be applied in relation to the plant operation and site noise management.

14.8.2 For construction noise, in accordance with appropriate standards, best practical means would be employed to control the noise generation. The impact on existing residential areas from any construction noise during the highest noise conditions will have a negligible to slight impact magnitude and neutral to minor significance.

14.8.3 An example of noise amelioration measures to control site operational noise has been proposed to meet the requirements of best available techniques (BAT).

14.9 Residual Impacts

14.9.1 Residual impacts are not applicable, because there have been no identified incorporated enhancement and mitigation measures. Therefore, the predicted impacts remain as set out in Section 14.6 and Appendix 14.

14.10 Conclusions

14.10.1 During the operation of the site it is concluded in respect of the resultant residual impact, that with the proposed mitigation measures, there is likely to be a negligible impact and neutral significance.

14.10.2 The impact on existing residential areas from any increase in road traffic noise during site operations will also have a negligible impact magnitude and neutral significance.

14.10.3 Taking into account the operational times of the Resource Recovery Facility, access arrangements, noise control measures proposed, baseline levels, subjective observations of this type of site in operation, measured noise levels and the relative position of the nearest residential properties it is our expert opinion that residential amenity would be adequately protected.

15 TRAFFIC AND TRANSPORTATION

15.1 Introduction

15.1.1 This chapter of the Environmental Statement assesses the likely significant impacts of the proposed Resource Recovery Facility at Sidegate Lane in terms of traffic impact. The Highway Impact Statement is presented in detail in the technical report at Appendix 15.

15.2 Planning Policy

National Planning Policy

- National Planning Policy Framework (2012)

Local Planning Policy

- Northamptonshire Minerals and Waste Development Framework Control and Management of Development DPD and Core Strategy

15.3 Assessment Methodology

15.3.1 A detailed site visit was undertaken on Tuesday 26 June 2012, between 1330 and 1530 hours. During the site visit there were no major road works within the surrounding highway network and weather conditions were clear and dry. A vehicle speed survey was also undertaken at the Wellingborough Road/Sidegate Lane junction on Tuesday 26th June 2012, between 1430 and 1520 hours.

15.3.2 To address any concerns regarding the impact on Sidegate Lane, Automatic Traffic Counts (ATC) were also commissioned in the vicinity of the existing site access junction on Sidegate Lane to collect details of vehicle speeds, daily traffic flows, and vehicle classifications, covering Saturday 12 May 2012 through to Friday 18 May 2012.

15.3.3 Traffic count data was also purchased from Northamptonshire County Council for an extended study area to form part of the environmental impact assessment. In addition to the site visit, speed and traffic survey data, along with details of all recorded Personal Injury Accidents within the surrounding highway network during the past five years, were obtained from the local highway authority (Northamptonshire County Council).

15.4 Baseline Conditions

15.4.1 The following details summarise the key results of the traffic count surveys along the key roads.

Site 1: Sidegate Lane (approximately 600 metres east of the site access junction)

- AAWT (5 day average 24 hour total) 5710 vehicles (157 HGVs)
- 85th percentile two-way speed (7 day average) = 50.6mph

Note: As the ATC survey was carried out to the east of the site access junction it did not pick up any of the existing landfill traffic originating from Wellingborough Road, therefore in line with the information provided by the Project Team it is assumed that the landfill site would generate an additional 107 (119 x 90%) HGV movements per day.

Site 2: Wellingborough Road approximately 200 metres south of the junction with Sidegate Lane.

- AAWT (5 day average 24 hour total) 14881 vehicles (1000 HGVs)

15.4.2 To determine the environmental impact of any change in traffic flows, a study area must be defined. Guidelines for the Environmental Assessment of Road Traffic, Institute of Environmental Assessment (1993) provides 2 rules of thumb are taken into consideration.

- Rule 1 – include traffic links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles increase by more than 30%)
- Rule 2 – include any other specifically sensitive areas where traffic flows have increased by 10% or more.

15.4.3 On the basis that there are no highway safety or capacity issues, the 30% HGV threshold has been applied within this assessment.

15.4.4 Hence, the following details were used to define an appropriate study area:

109 daily two-way HGV movements

- Sidegate Lane west – 37 % increase in HGV movements (97 HGV movements generated / 264 (157+107) existing HGV movements on link)
- Sidegate Lane east– 7% increase in HGV movements (11/ 157)
- Wellingborough Road south – 4.9% increase in HGV movements (assume 50% of vehicles originate from the south 49 / 1000)

15.4.5 Based on the 30% HGV threshold, the above details demonstrate that the proposals would only generate a significant change in conditions at Sidegate Lane (west). Beyond this study area, a material change in goods vehicle movements should not occur. The following section therefore considers the environmental impact on Sidegate Lane (west) only.

15.5 Incorporated Enhancement and Mitigation

15.5.1 Incorporate enhancement and mitigation not relevant, no changes to the existing Sidegate Lane access are proposed.

15.6 Identification and Evaluation of Key Impacts

15.6.1 The environmental impacts that could be created by the transport implications of the proposed development fall under three general headings:

- i. Disruption due to construction
- ii. Impacts on pedestrians, cyclists, equestrians and the community
 - Journey length and local travel patterns
 - Amenity
 - Severance

iii. Impacts on vehicle travellers

- View from the road
- Driver stress

15.6.2 The following details summarise the key transport related facts associated with the proposals that are relevant to this environmental assessment:

- up to 109 HGV movements per day, or no more than 12 hourly movements would be generated along these routes collectively.

15.7 Cumulative Impacts

15.7.1 The existing landfill site generates up to 119 two-way HGV movements a day. From this information it has been established that the majority of vehicles arrive/depart the site from the Wellingborough Road/Sidegate Lane junction, before continuing on either north to the A14 or south towards Wellingborough. A proportion of vehicles potentially also arrive/depart the site from the A45, via Irthlingborough and along local roads (the B5348 and B571 to Sidegate Lane).

15.7.2 Sidegate Lane also serves an additional commercial facility at Carrol Spring Farm (approximately 370 metres east of the site access), which at the time of the site visit was observed to be disused. It also serves Finedon Hill Farm (approximately 50 metres east of the site access junction) and Top Lodge Farm (approximately 850 metres east of the site access junction).

15.8 Mitigation

15.8.1 Visibility splays of 112 metres to the southeast and 121 metres northwest would be required at the site access junction. These visibility splays can be achieved from a 2.4 metres setback distance within what appears to be public highway land.

15.8.2 Wellingborough Road/Sidegate Lane junction requires visibility splays of 105 metres to the north and 98 metres to the south. These visibility splays can be achieved from a 2.4 metres setback distance within what appears to be highway land.

15.9 Residual Impacts

15.9.1 The residual impacts remain as per those set out in Section 15.6.

15.10 Conclusions

15.10.1 The development proposals would generate 109 daily two-way Heavy Goods Vehicle movements. This equates to up to 12 two-way movements per hour, which would not represent any increase on the surrounding highway network.

15.10.2 The environmental conditions for pedestrians, cyclists, equestrians, and the community would not change significantly as a result of the development proposals. There are no specific congestion or highway safety issues, and the carriageway provides sufficient width for HGVs to safely pass pedestrians and cyclists without direct conflict.

15.10.3 There would be minimal construction traffic associated with the proposed development, when compared to the existing and proposed HGV movements and, hence, no associated environmental impact. Journey lengths and travel patterns associated with the proposed development would not increase, whilst the traffic flows and likely vehicle speeds associated with the proposals are unlikely to have a significant impact on the amenity of the surrounding facilities.

15.10.4 The increase in HGV movements would have minimal environmental impact. When considering the implications of development traffic, the actual impact of additional movements on vehicle travellers and pedestrians, cyclists, equestrians, and the community, would generally be insignificant. Hence, it is considered that no mitigation measures should be required

16 CUMULATIVE IMPACTS

Introduction

- 16.1.1 This section of the Environmental Statement (ES) assesses the potential cumulative impact(s) of the proposed development. An assessment is made of both incremental impact (i.e. environmental impacts associated with existing mineral operations within a 5km radius of Willow Hall Quarry), as well as the combined impact of different types of impact having effect upon identified sensitive receptors.
- 16.1.2 The assessment of cumulative impact is required as part of an ES under Schedule 4 of the Environmental Impact Assessment (EIA) Regulations 2011.
- 16.1.3 The cumulative impacts of the proposal are assessed by the following:
- Simultaneous effects; when one type of impact from a development occurs at the same time as another impact from a separate development.
 - Successive effects; impact of succeeding permitted development on the local area.
 - Combined effects; multiple impact from the individual technical assessments.

Simultaneous Effects

- 16.1.4 There are no other similar types of development permitted or proposed within the locality of the application site. It is noted however, that there are plans for an eastern extension to Wellinborough, set out in the Wellingborough East Development Framework Supplementary Planning Guidance, November 2003. This extension, if implemented, would extend the urban area towards the application site. However, an extensive landscape buffer between this development and the application site would remain. Therefore, this development is not considered to contribute to simultaneous effects, and it is considered that there is no significant simultaneous effects from the proposed development.
- 16.1.5 In addition, it is noted that the proposed development lies adjacent to the Sidegate Lane Landfill and the potential for simultaneous effects between the two developments has been considered. The Sidegate Lane Landfill, is a temporary development, with progressive and final restoration. In contrast the proposed Resource Recovery Facility will be a permanent facility. It is considered that there will be limited simultaneous effects for the following reasons:
- The proposed drainage for the Resource Recovery Facility will be tied into the drainage for the restored landfill.
 - The traffic movements associated with the Sidegate Lane Landfill and restoration will cease when the site is fully restored, and will reduce over time up to that point.
 - The restoration plans to not currently propose future built development, therefore there will be no cumulative effects on visual amenity.
 - The restoration of the landfill will have a positive effect on the landscape character and biodiversity and will enhance the immediate setting of the proposed Resource Recovery Facility over time.

Successive Effects

- 16.1.6 It is noted that the application site, and through association with Sidegate Lane Landfill has a complex planning history. However, the final restoration of the site will see the culmination in landfill related operations at Sidegate Lane, and as a result there is

considered to be no effects accumulative as a result of successive previous planning permissions.

16.1.7 Furthermore, the site is allocated for waste management use in the Northamptonshire Minerals and Waste Development Framework Locations for Waste Development DPD (adopted March 2011). It is considered that allocating the application site for waste development deems it is acceptable in cumulative impact terms.

Combined Effects

16.1.8 The table below sets out the considered cumulative impact of the combined individual technical assessments.

Table 16.1 Combined Cumulative Effects

ASSESSMENT	POTENTIAL IMPACT
Air Quality (Dust and Odour)	The potential impact on air quality as a result of the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also.
Archaeology	The potential impact on archaeology as a result of the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also.
Contamination and Ground Conditions	The potential impact on ground conditions and receptors to contamination as a result of the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also.
Ecology and Trees	The potential impact on ecology and trees as a result of the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also. The proposed ecological mitigation in combination with the landscape mitigation will combine to have a positive effect on the site setting.
Hydrology	The potential impact on hydrology as a result of the proposed development is minor. Therefore, the combination of this effect with others will be negligible also.
Landscape and Visual Amenity	The potential impact on landscape as a result of the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also. The proposed landscape mitigation in combination with the ecological mitigation will combine to have a positive effect on the site setting. The potential impact on visual amenity ranges from minor to major. However, the impact on visual amenity is not considered to combine with other effects, therefore there will be no combine cumulative effects.
Noise	The potential impact on noise receptors as a result of the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also.
Traffic and Transportation	The potential impact as a result of the traffic associated with the proposed development is negligible. Therefore, the combination of this effect with others will be negligible also.

16.1.9 It is considered that the combined effect of the technical assessment above in Table 16.1 is not significant.

17 SUMMARY AND CONCLUSIONS

17.1 Summary

17.1.1 The environmental impacts of the proposed development at Sidegate Lane have been listed in Table 17.2.

Table 17.2 Summary of Impacts

ENVIRONMENTAL IMPACT	FINDING AND MITIGATION
Air Quality (Dust and Odour)	<p>Potential for dust nuisance impacts associated with construction activities is considered to be negligible.</p> <p>Potential for minor, localised and temporary adverse effects on the roads accessing the site during construction.</p> <p>Construction and operational traffic would be likely to have a negligible effect on local air quality.</p> <p>Potential for odour impact associated with the soil blending operations is negligible.</p> <p>Potential for odour impact off site associated with the road sweepings recovery operations is negligible.</p> <p>Potential for dust and odour impact associated with the RDF facility is negligible.</p>
Archaeology	There will be no impact on designated assets.
Contamination and Ground Conditions	<p>There is likely to be no significant source of contaminants present at the site so there will be a negligible risk to all receptors including humans, controlled waters and ecological receptors.</p> <p>There will be no impacts due to geology, hydrogeology and ground conditions on potential receptors both onsite or offsite.</p>
Ecology and Trees	There are no impacts during construction or operation on designated ecological sites or habitats or protected species, although some loss of particular types of habitat is noted. There is considered to be a significant positive effect on planted scrub and grassland within the application site and on roosting bats, fungi and invertebrates.
Hydrology	The risk of on site flooding during or after a 100 year critical storm event is considered to be minor .
Landscape and Visual Amenity	<p>A small number of changes will occur to the landscape characteristics, having a minor impact.</p> <p>Impacts on visual amenity at viewpoints range from minor to major, although the majority are minor or moderate with only one major impact noted.</p>
Noise	During the operation of the site there is likely to be a negligible impact and neutral significance. The impact on existing residential areas from any increase in road traffic noise during site operations will also have a negligible impact and neutral significance.
Traffic and Transportation	The increase in vehicle movements from the development would not represent any increase on the surrounding highway network, and there are no specific congestion or highway safety issues. There would be minimal construction traffic. The traffic flows and likely vehicle speeds associated with the proposals are unlikely to have a significant impact on the amenity of the surrounding facilities. Therefore, there will be minimal environmental impact.

17.2 Conclusions

- 17.2.1 In summary, the planning application is submitted to Northamptonshire County Council, on behalf of SITA UK for a proposed Resource Recovery Facility, to include Refuse Derived Fuel Facility, Road Sweeping Recycling and Soil Blending at Sidegate Lane, Wellingborough.
- 17.2.2 This planning application is supported by an Environmental Impact Assessment, the result of which are documented in this Environmental Statement and supporting Appendices. The Environmental Statement provides detailed analysis of any potential impacts on the environment as a result of the proposed development.
- 17.2.3 In conclusion, it has been demonstrated that with suitable mitigation as required, there will be no detrimental impact on the environment as a result of the development. There are no cumulative impacts identified as a result of the proposed development and the majority of environmental impacts are either no impact, negligible or minor.