The Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

The Proposed Rookery South (Resource Recovery Facility) Order

Non-Technical Summary

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1.0 Introduction

1.1.1. An Environmental Statement (ES) has been prepared by Covanta Rookery South Limited (Covanta) to accompany an application for a Development Consent Order (DCO) to the Infrastructure Planning Commission (IPC). Should the DCO be approved, it will authorise the construction and operation of a Resource Recovery Facility (RRF) at Rookery South Pit, a former brick clay pit, near Stewartby in Bedfordshire (the Project). The main components of the RRF comprise an energy generating station in the form of an Energy from Waste (EfW) Facility with expected average gross/net electrical output of approx 65/55 megawatts (MWe) respectively, and a dedicated post-treatment Materials Recovery Facility (MRF).

1.1.2. The ES comprises this Non-Technical Summary and the following Volumes:

1) Volume I : Text and Figures;

2) Volume II: Photomontages to support the Landscape and Visual Impact Assessment; and

3) Volume III: Technical Appendices.

1.2. Project Overview

1.2.1. The location of the Project is shown at Figure 1.1. It is situated in the Marston Vale between Milton Keynes and Bedford (at Ordnance Survey Grid Reference TLO17414) immediately south of Stewartby.

1.2.2. The EfW Facility will be fuelled by residual waste (i.e. that remaining after recycling and composting) and has a nominal capacity of 585,000 tonnes per annum. It is intended to treat mixed residual municipal waste (MW) and commercial and industrial (C&I) waste. It will recover electricity, at least 50% of which will be classified as renewable energy, and will be enabled to deliver heat in the form of combined heat and power (CHP). Sufficient electricity would be exported from the EfW Facility to serve the needs of 82,500 homes, equivalent to the housing energy needs of Bedford and the Marston Vale[1].

1.2.3. The post-treatment MRF is dedicated to the management of the incinerator bottom ash (IBA) produced by the EfW Facility. It will separate the IBA from co-mingled metals into a secondary aggregate (IBAA) used for construction projects with the remaining metals being recycled. In total, the RRF will recover value from 96% of

[1] defined to include Stewartby, Marston Moretaine, Houghton Conquest, Lidlington, Ampthill, Wootton and the Wixams.

the residual waste treated, responding to the renewable energy supply and waste treatment capacity promoted in national and local planning policy.

1.3. The Applicant

1.3.1. The group of companies of which Covanta forms a part is the world's largest operator of EfW Facilities (by tonnage). It has 45 plants worldwide - mostly in the United States. These facilities process about 18 million tonnes of residual municipal and industrial waste. By using waste as a fuel Covanta generates enough heat and electricity to power one million homes. In addition to dramatically reducing the amount of waste going to landfill, this also prevents some 15 million tonnes of carbon dioxide from entering the atmosphere every year.

1.3.2. Covanta entered the UK market in 2005 and offers high quality, safe and efficient solutions for treating residual MW and C&I waste. It will achieve this through investing in larger scale plants so as to maximise the economic and environmental benefits, passing on some of these benefits to clients, including local authorities and their residents. Covanta in the US has received a wide range of safety and environmental awards in recent years from environmental and government bodies.

1.3.3. Further information about Covanta can be found at: http://www.covantaenergy.co.uk.

2.0 Location and Description of the Application Site and Surrounding Area

2.1.1. The Application Site for the Project is, for the most part, located within The Rookery, as shown on Figure 2.1. Ampthill, a local market town, lies approximately 3km south east. Bedford (town centre) is situated approximately 9km north east of The Rookery. The A421 is approximately 2km to the west of the Rookery, the B530 lies to the east of the Application Site, running north-south between Bedford and Ampthill and the M1 is located approximately 9km from the site access to Junction 13. The Application Site is bounded by railway lines on two sides – the Marston Vale Line to the west and the Midland Mainline to the east.

2.1.2. The Rookery comprises two large, former clay pits, Rookery North Pit and Rookery South Pit, separated by an east-west spine of unexcavated clay. Rookery South Pit ranges from 10m – 24m below surrounding ground levels. The pit base includes a range of wetland habitats, including open water, reed beds, pools and wet clay.

2.1.3. Local villages include Stewartby, a Conservation Area located just beyond Green Lane, north of The Rookery in addition to Houghton Conquest, Marston Moretaine and Millbrook also a Conservation Area, located approximately 2km to the south of the Application Site, as shown on Figure 2.2. Listed buildings in the vicinity of the Application Site include Millbrook Station, Stewartby Kilns and associated four chimneys (part of the former Stewartby Brickworks); Ampthill Park House, Houghton House; and Katherine's Cross to the south in the wider area.

2.1.4. Marston Vale Millennium Country Park, extending to 250ha, is located to the west of the Application Site whilst Millbrook Proving Ground, a vehicle testing ground, is located to the south of the Rookery. South Pillinge Farm (Grade II listed building) is located approximately 250m to the south of the proposed Operations Area and is the closest residential property.

2.1.5. The Rookery is to be subject to a Low Level Restoration scheme (LLRS) to be undertaken separately to the RRF Project by O&H Properties. The LLRS will restore the pit base of Rookery South Pit to low intensity agricultural land, including a ditch system draining water to a large attenuation pond and pit stabilisation works. Once restored, the pit will be approximately 10 metres below the surrounding ground level in the vicinity of the RRF.

2.1.6. The LLRS will be implemented in four phases and forms the baseline for the assessment of effects at the Application Site. To ensure that the LLRS is delivered prior to the construction of the RRF, the DCO will include a requirement equivalent to a condition on a planning permission, which will ensure the development of the

RRF could not proceed until the relevant parts (namely Phase 1) of the LLRS have been implemented.

2.1.7. A number of existing public footpaths are located in and around the Application Site, linking it to the wider Marston Vale. The Mill Brook watercourse flows in a northerly direction along the south-western flank of Rookery South Pit, whilst a tributary watercourse, passing to the south of Rookery South Pit, joins the Mill Brook in the vicinity of South Pillinge Farm.

2.2. Surrounding Area

2.2.1. The Rookery lies within a landscape that has experienced significant change and will continue to do so for the foreseeable future. Following decades of clay extraction, brickmaking and landfill activity, the wider area of the Northern Marston Vale Growth Area is designated for growth in local planning policy. This policy, which is recently reviewed and adopted, seeks to bring about environmental regeneration and development of housing and employment uses together with the necessary supporting green infrastructure, including landscape improvements and improved public access.

2.2.2. Some of the major developments that will deliver this regeneration have already been permitted and are also shown on Figure 2.2. These include a new settlement at The Wixams (under construction); mixed use developments at Broadmead Road, Stewartby and Marston Moretaine (construction due to start in 2010 for both); residential development at West Wixam. Nirah, the visitor attraction comprising a freshwater science research park and mixed use development and its associated Park & Ride, located just 1km to the north east of The Rookery. Permission for Nirah was issued in 2009.

2.2.3. South of the Northern Marston Vale Growth Area the new Warren Wood Center Parc is proposed south of the A507 and Millbrook, a development of 700 lodges, hotel and ancillary development, also due to start construction in 2011. Permission was granted in September 2007.

2.2.4. Mixed use developments have also been proposed at Stewartby, Kempston and Wootton. Planning policy documents identify further areas of change near The Rookery, including expansion of The Wixams, residential and mixed developments at Ampthill, and further employment provision at Cranfield. Further, the Bedford & Milton Keynes Waterway Trust is proposing to develop a canal through the area.

3.0 The Project

3.1.1. The RRF includes certain key elements, of which the most significant is the EfW Facility. The physical structure and layout arrangements of the Project includes the following and are shown on Figure 3.1:

1) **the Operations Area**: this contains the RRF and associated infrastructure including weighbridges; a security gatehouse internal site roads and hard standing areas; parking provision for cars, light goods vehicles (LGV) and heavy goods vehicles (HGV) and boundary fencing;

2) **the EfW Facility**: access ramp; tipping hall; refuse bunker; boiler house; flue stack and flue gas treatment area; CHP provision; administration offices; visitor centre/educational facility; turbine hall; workshop and stores; air cooled condensers and transformer compound;

3) **the post-treatment MRF**: IBA storage yard and water collection lagoon, buildings for untreated aggregate/aggregate processing; staff administration block; weighbridge and pump house;

4) **transport infrastructure**: site access arrangements and level crossing improvements;

5) **connection to utilities**: including water, foul drainage and electrical grid connection for export/import of electricity;

6) **a landscape strategy**: woodland planting, earth bunding, wetland area and use of green walls and brown roofs on the EfW Facility;

7) **rights of way strategy**: upgrading existing paths to dedicated routes with cycle uses and providing interpretation facilities; creation of second formal access into the Country Park;

8) **a lighting strategy**: enhancing Green Lane lighting and level crossing lighting; lighting the Operations Area and the stack. The access road is not to be lit; and

9) **a surface water drainage strategy**: use of the Rookery South attenuation pond; provision of a swale; and localised alignment of a drainage ditch.

3.2. Description of the RRF

3.2.1. The Operations Area and the RRF is shown on Figure 3.2. The EfW Facility is located in the western half of the Operations Area, and the MRF in the eastern half. The operation of the RRF is expected to employ 80 full time permanent staff.

3.2.2. The overarching design objectives for the Project comprise the following:

1) addressing long range elevated views, middle and short distance views, whilst delivering a coherent building design;

2) producing a static building in the landscape, so as to screen the lower level MRF buildings and operational activity resulting in a single well proportioned building with carefully selected materials and colours, that sits in the landscape with no visual clutter. Figure 3.3 shows the computer generated image of the EfW Facility;

3) producing a bespoke masterplan and building design to suit operational requirements and local site conditions/context, with particular attention to minimising building height and mass; and

4) stitching the Project into the landscape of the Marston Vale (a dynamic area where a lot of change is planned through new development) through the provision of new areas of woodland and enhanced public rights of way.

3.2.3. The EfW Facility will be operational for 24 hours per day, 365 days per year and is expected to employ 61 full-time staff. The process is essentially waste combustion that recovers energy in the form of heat and electricity. Deliveries of residual waste will be restricted to between 05.00 and 23.00 with no waste accepted on Sundays, Christmas Day, New Years Day or Easter Day except under exceptional or emergency circumstances.

3.2.4. The normal operational hours of the MRF will be Monday to Friday: 07.00 to 18.00 and Saturday: 07.00 to 14.00 and closed on Sundays except under exceptional or emergency circumstances. The MRF will employ 7 permanent staff with another 12 staff employed to manage and operate the site HGVs

3.2.5. A brief description of the RRF process is outlined as follows:

1) following delivery of residual waste to the EfW Facility, it is deposited into the refuse bunker (7), where it is mixed and turned to create a uniform fuel. It is then conveyed onto a combustion grate where the waste is burned and heat is produced;

2) the heat passes to a boiler system which generates superheated steam capable of driving a steam-turbine. During this process all emissions are monitored by the emissions monitoring equipment;

3) the momentum produced drives the generation of electricity which will be transmitted to the Marston Grid substation via a new underground connection;

4) following combustion of the waste, the by-product known as Incinerator Bottom Ash (IBA) (20% of input waste by weight) remains which contains

metals (5% of input waste). It is transferred by vehicle to the MRF for separation, grading and processing to produce a secondary aggregate, known as Incinerator Bottom Ash Aggregate (IBAA) for use in the construction industry. Metals recovered during the processing of IBA are taken off site for recycling;

5) the combustion gases are treated to ensure that when emitted from the stack they do not exceed the stringent requirements set by the regulatory authority. The residues from the gases clean-up process (fly ash) are stored in an enclosed silo and transported in a tanker to a specialist waste facility for hazardous material.

3.2.6. A number of strategies have been prepared as part of the design process to minimise the impact of the Project within the Application Site and surrounding area. These are referred to as follows:

3.3. Landscape Strategy

3.3.1. The Landscape Strategy is shown on Figure 3.4. It has been based on the need to visually integrate the Project within the existing landscape and thus minimise its visual impact, whilst also enhancing the Application Site's ecological value. Achieving such objectives requires a mixed approach including retention of existing vegetation, new woodland and hedgerows and inter-planting of existing areas to construct enhanced screening along important sightlines. In addition, the establishment of green walls and brown roofs for the western portion of the EfW Facility will both soften its appearance and provide a new ecological habitat.

3.4. Rights of Way Strategy

3.4.1. The Rights of Way Strategy is shown on Figure 3.5. The Strategy is committed to increasing connectivity within the Rookery North Pit and Rookery South Pit. Delivering this objective will involve upgrading existing footpaths to include extensive cycle rights, specifically for both the circular Rookery North route and the existing path running adjacent to the Midland Mainline. In addition, new links along Green Lane to Stewartby Lake and Stewartby will be provided improving accessibility to the Marston Vale Millennium Country Park and other local facilities.

3.5. Lighting Strategy

3.5.1. The Lighting Strategy has been prepared to provide the necessary illumination for the safe operation of the RRF whilst minimising lighting effects on the location, nearby residents and areas of ecological importance. The access road will not be lit, and there will be 3 red obstruction lights on the stack to comply with the requirements of Cranfield Airport.

3.6. Surface Water Drainage Strategy

3.6.1. The Surface Water Drainage Strategy was prepared in consideration of the demands of surface run-off, overland flows, and MRF trade effluent. A drainage system, including use of the Rookery South attenuation pond, will collect surface run-off, whilst the potential for Millbrook to overflow is considered by the provision of a nearby swale. Finally, the management of MRF trade effluent will be met through an innovative system of catch-pits, weirs and water collection lagoon, along with the use of run-off from the MRF in the EfW process with any surplus water being discharged to the foul sewer.

4.0 Environmental Impact Assessment

4.1.1. The Project includes a waste disposal installation for non-hazardous waste having a capacity exceeding 100 tonnes per day[2]. As such, the Project is a development for which an Environmental Impact Assessment (EIA) is required by the Infrastructure Planning (Enviromental Impact Assessment) Regulations 2009. This Non Technical Summary is provided in accordance with these Regulations.

4.1.2. The ES records the results of the EIA which has examined the effects of the Project during the construction, operational and decommissioning phases on a wide range of environmental topics. These topics were agreed with the IPC through a formal EIA scoping process. It also considers the cumulative effects of the construction of the Project with other major local developments, including the ongoing implementation of the LLRS.

4.1.3. The Project's construction phase will commence in Winter 2011, whilst the commissioning and operational phases will take place during Summer to Winter 2014. All environmental topics were assessed using this programme. Recognising that the timeframes for implementing complex projects can be liable to change, the ES also considers the potential impacts of a 12 months extension to programme.

4.1.4. All environmental assessments have also been based on the nominal waste throughput for the EfW Facility of 585,000 tonnes per annum (tpa). However, the Transport, Noise, Air Quality and Health Assessments (as the only assessments with the potential for significantly increased effects) also undertake a sensitivity test of operating at maximum throughput capacity of 645,000 tpa, recognising that fluctuations in waste calorific value and plant availability could affect throughput.

4.1.5. Where relevant, consultation was undertaken with the local authority and prescribed consultees to determine study areas, methodology and mitigation measures for each environmental topic.

4.1.6. The conclusions of the assessment for each topic are summarised in Chapters 5 to 13 of Volume I of the ES.

4.2. Alternatives

4.2.1. A brief description of the alternatives considered by Covanta for the Project are set out below:

[2] Under different legislation the term ‘disposal’ has different meanings in respect of waste. Here the term is specific to the EIA Regulations 2009 and includes thermal treatment of waste by combustion.

1) the Engineering Design Statement accompanying the Application provides an overview of the two main technology processes available to treat and recover residual waste. Moving grate technology was selected as the most appropriate technology for the Project due to it being a flexible, safe, reliable, energy efficient process with a low carbon footprint;

2) the Environmental Agency's Waste and Resources Assessment Tool for the Environment (WRATE) was used to model and compare the environmental impact of a single larger waste management facility with a wide catchment with several smaller scale facilities handling waste on a more local basis. It found that the RRF provides significant energy efficiencies that considerably outweigh the additional transport impacts associated with a larger centralised facility;

3) the Alternative Site Assessment Report accompanying the Application outlines the process undertaken to audit Covanta's commercial decision to locate the RRF at Rookery South Pit. It looked at over 400 different sites and concluded that 4 sites, including Rookery South, had the potential to accommodate an EfW Facility. The Report concluded that Rookery South Pit is an appropriate site as it is located within the Northern Marston Vale Growth Area; there are real opportunities for delivering Combined Heat and Power; it is positioned centrally; avoids the areas most protected by policy, such as Green Belt, and is large enough to co-locate the post-treatment MRF;

4) the Design and Access Statement accompanying the Application refers to the range of alternative design options considered through the iterative design process, resulting in the consideration of a number of design options. The building location and orientation was determined to keep the visual impact on the surrounding area to a minimum, address noise, practical site engineering matters and provide for future possible rail connection from the Marston Vale Line. The building form of 'interlocking boxes' was selected as it allowed the height of building to be reduced and addressed the dominance of the roof profile in medium and long distance views. The presence of the RRF was reduced further through the selection of a single combined stack as it appeared a more elegant feature than the 3 stack option which emphasised the stacks within the landscape; and

5) the Rail Feasibility Study also accompanying the Application outlines the rail options that could be utilised for the operation of the RRF. In civil engineering terms the inclusion of a rail based waste handling facility at Rookery South is a viable option. The study then looks at potential sites within the study area which could be suitable for a rail-based transfer facility from where waste could be loaded onto the rail network. It concluded that, at the present time, there were not suitable sites and commercial viability was very limited.

However, the proposed East West Rail scheme could change this position in the future and so this option is being kept under review.

5.0 Transport and Access

5.1.1. The Transport and Access Assessment has been prepared in accordance with appropriate guidelines and consultation with the Highways Agency, Central Bedfordshire Council and Bedford Borough Council. It considers the impact of traffic movements associated with the RRF on the local highway network in terms of capacity, delay, pedestrian amenity and severance.

5.1.2. The study area includes 16 links (roads) in the vicinity of the Application Site which have been agreed with the local highway authority. The assessment of impact identifies that of the 16 links, only 3 are needed for further detailed assessment, with respect to their environmental impact. A Transport Assessment submitted as a separate document which accompanies the DCO application, assesses the impact of the Project on all links in terms of road capacity.

5.1.3. The assessment of environmental impact in terms of severance (i.e. division of communities), which is based upon the percentage change in vehicle movements, is identified as significant in terms of HGV movements on Green Lane and the existing A421 due to the low number of HGV vehicle movements currently on Green Lane and the predicted movements on the A421 once the new dual A421 opens Whilst an increase in vehicle movements along these routes will result in a significant increase in terms of percentage change for HGV's, traffic levels will remain relatively low in absolute terms and as such is deemed an acceptable level.

5.1.4. In terms of driver delay, the results illustrate that there will be only a slight increase in delay to drivers during the network peak periods which will not be perceivable against the daily fluctuation in vehicles movements. A review of the impact in proximity to the Green Lane level crossing has been undertaken for both the construction and operational phases demonstrating that there will be limited queuing at the access into the RRF site, with no impact to the operation of the level crossing.

5.1.5. The ease of pedestrians crossing both Green Lane and the access road to the Operations Area has been assessed based on the delay taken to cross the roads in accordance with the appropriate guidelines. The results show that with the Project in place, all able-bodied, disabled and elderly pedestrians will be able to cross Green Lane and the access road safely.

5.1.6. All of the links were assessed in terms of potential fear and intimidation with regards to vehicle speeds. The results were shown as low in terms of vehicle impact but as speeds were greater than 20mph, these are shown as extreme. However the

guidelines state that this assessment should take into consideration issues including the proximity of pedestrians to traffic flows, pavement widths, high speed sections of road and vulnerable users. The speeds recorded along Green Lane are not considered high for this type of road (just over 30mph) or considered to represent an issue in terms of fear for pedestrians. The new access road arrangement will include traffic islands on Green Lane which will assist in reducing vehicle speeds further.

5.1.7. The routing of HGV's during the construction, operational and decommissioning phases will be strictly monitored to ensure all HGV's use the A421/ Green Lane junction and use main routes where possible. The routing will be enforced through the provision of road signs and, during the operational phase, CCTV will be provided at the Green Lane access monitoring the routes that HGV's use to enter the RRF. Details of the signage to be used will be agreed with the local highway authority. Penalties will be given to drivers that disregard this. During the operational phase, these restrictions will exclude local refuse collection vehicles which are already on the local highway network and currently travel through local villages.

5.1.8. Although the impact of traffic movements associated with the RRF in absolute terms are considered low, measures are proposed to mitigate the impact to pedestrian and cycle amenity as a result of the increased HGV movements. The provisions include providing a continuous footway route along the southern side of Green Lane from Stewartby to Stewartby Lake and Marston Vale Millennium Country Park. Measures are also proposed to assist pedestrians across Green Lane through the provision of a centre island refuges both on the new RRF access road and on Green Lane.

5.1.9. The new access arrangement will include widening Green Lane within the proximity of the existing access, to facilitate a ghost right turn lane arrangement.

5.1.10. All of the above measures will assist in improving accessibility for both existing residents and staff of the RRF and improve safety for pedestrians crossing Green Lane.

5.1.11. The location of the Application Site, situated alongside the Marston Vale Line, allows for the opportunity of waste to be transported by rail. At the present time there are no existing waste contracts or opportunities for waste transfer to rail at the waste source and as such this option is not currently a viable option. However the design of the Project does not preclude the use of rail in future and Covanta will periodically investigate the use of this provision.

5.1.12. The cumulative impact of the RRF with other local major developments has been assessed as Minimal, with mitigation measures implemented to off-set any impacts. The cumulative assessment undertaken takes into account the traffic associated with the LLRS and other developments in the area ensuring a robust assessment has been conducted.

5.1.13. A Travel Plan has also been prepared which provides aims, objectives and targets for reducing car borne trips to the site.

6.0 Air Quality and Human Health

6.1.1. An Air Quality Impact Assessment (AQIA) has been prepared in accordance with current planning policy and following consultation with the Environment Agency, Natural England, Central Bedfordshire Council and Bedfordshire District Council. The AQIA considers the potential for adverse impacts to human health and sensitive ecology arising from a number of activities associated with the construction and operation of the RRF, including emissions to air from the operation of the RRF from the combustion of wastes, from traffic servicing the site during construction and operation and the potential for dust nuisance during construction and operation.

6.1.2. The analysis undertaken to inform the AQIA indicates that there are predicted to be no unacceptable or significant impact on human health or amenity associated with emissions to air from either the construction or operational phases of the project.

6.1.3. A number of other specific issues were considered, including the potential for odour nuisance, impacts on low flying aircraft flying through the plume, removal of asbestos during construction, dust from the handling of IBA, dust from cable laying and dust from the LLRS. The assessment concluded that with the implementation of mitigation measures there are no significant impacts associated with any of these issues.

6.1.4. The assessment also considered the occurrence of visible plumes as a result from water vapour in the emissions from the stack. The results of this analysis indicated that there is likely to be a visible plume for approximately 50% of the year, and that the visible plume will be less than 100m long for approximately 95% of the year.

6.1.5. An assessment of the potential impacts on health associated with exposure to emissions from the burning of waste indicated that there are no unacceptable or significant impacts on health, even if someone was living in the point of maximum impact downwind for their whole life, and was consuming produce from that point, i.e. meat, vegetables and milk.

6.1.6. In addition, consideration was made of the potential for adverse impacts on sensitive ecological receptors. The assessment concluded that there are no significant impacts on any sensitive ecological receptor, for all pollutants of interest, with the exception of a minor impact at one site, based upon a conservative assessment using a 100m stack. This is likely to be reduced with the use of the 105m stack in the Application.

6.1.7. Overall, the effects of the Project upon local people and environment is predicted to be Not Significant from the perspective of air quality, and there will be no significant residual or cumulative effects.

7.0 Noise and Vibration

7.1.1. A baseline noise survey has been carried out to establish the background and ambient noise at the surrounding properties. Locations were selected at the nearest residential properties to the north, east, south and west of the site and also at selected leisure locations. The survey showed that the area can be relatively quiet, except where houses are close to roads. The results of this survey have been used to establish suitable noise limits for the Project. These limits have been derived paying regard to the appropriate standards and guidance for each aspect of the Project.

7.1.2. A realistic worst case has been assessed for the construction phase and the predicted noise levels fall within the limits recommended in *British Standards 5228: 2009, Code of Practice for Noise and Vibration Control on Construction and Open Sites, Parts 1 and 2: Noise and Vibration.* It is assumed that demolition when the RRF is decommissioned would create similar levels of noise. The traffic generation during construction will be less than during operation of the RRF and therefore any noise increase will be less than during operation.

7.1.3. The design and layout of the Project has been influenced with the intention to minimise noise emissions to the community. Quiet equipment has been selected and the buildings have been designed to control noise breakout. These measures are designed to ensure that the noise levels in the community are within acceptable limits. Noise from traffic serving the RRF will not cause unacceptable or significant increases in road traffic noise.

7.1.4. No vibration is expected to be perceptible outside of the Application Site either during construction or operation of the Project. The vehicles serving the site may cause perceptible levels of vibration at houses close to the main traffic routes if these roads are poorly maintained, but this would be no worse that vibration caused by other heavy vehicles using the roads.

7.1.5. The overall effects of the noise and vibration caused during construction, operation and decommissioning of the Project have been found to be Not Significant. It is considered that the proposals comply with the requirements of national and local policy on noise and vibration.

8.0 Landscape and Visual Impact

8.1.1. The Landscape and Visual Impact Assessment considers the potential effects of the Project on landscape character and representative visual receptors. It has been prepared based on best practice guidance and the methodology and scope of the assessment has been subject to consultation with Central Bedfordshire Council and Bedford Borough Council.

8.1.2. The Landscape and Visual Impact Assessment (LVIA) considers the potential effects of the Project on landscape character and representative visual receptors. It has been prepared based on best practice guidance and the methodology and scope of the assessment has been subject to consultation with Central Bedfordshire Council and Bedford Borough Council.

8.1.3. In relation to landscape character, the Project will have a direct effect on the landscape of the North Marston Clay Vale and an indirect effect on the landscapes of the Mid Greensand Ridge and Cranfield to Stagsden Clay Farmland, introducing a new built element into the local landscape. However, change will be limited to a relatively small proportion of the North Marston Clay Vale and will be perceived within the context of its already evolving character. As such, the local landscape character will prevail.

8.1.4. In relation to views, seventeen representative visual receptors were identified for the purpose of the assessment, with differing views towards the Application Site. These were classified as being short, middle or long distance views. The Project will result in changes to short distance views as a consequence of the close proximity of the Project to the representative visual receptors. However, in the middle to long distance views, the Project will be less apparent, set within the wide panorama of the Vale, which includes urban areas, industrial land-uses, transport infrastructure, and other tall structures such as pylons and the Stewartby chimneys. Seven of the representative visual receptors were agreed as appropriate photomontage locations through consultation with English Heritage, Central Bedfordshire Council and Bedford Borough Council. These demonstrate the effect of the Project on key representative visual receptors and/or heritage assets, and are provided in ES Volume II.

8.1.5. The mitigation of impacts on the landscape character and representative visual receptors has been addressed from an early stage in the design of the Project. Aspects of the design, including choice of stack, massing and height of the main buildings and selection of material finishes have been developed in consultation with English Heritage, Central Bedfordshire Council and Bedford Borough Council with the aim of minimising adverse impacts.

8.1.6. Further reduction of impacts has been achieved through the Landscape and Ecological Strategy, which includes the use of bunds and fringe woodland to screen the lower elements of the RRF, and the Rights of Way Strategy, which provides enhancement of the rights of way network.

8.1.7. The Landscape Strategy and Rights of Way Strategy support the objectives of the Forest of Marston Vale through the creation of new woodland and green infrastructure.

8.1.8. Overall, the effect on local landscape character is considered to range from Not significant to Minor by year ten of operation and the effect on representative visual receptors is considered to range from Severe/ Major to Not Significant by year ten of operation, subject to the distance of the representative visual receptor from the Project, degree of intervening structures, landform and vegetation, and extent of the relevant panorama.

9.0 Cultural Heritage

9.1.1. A Cultural Heritage Impact Assessment (CHIA) considers the potential effects of the Project on assets such as historic buildings and historic and archaeological sites (designated and undesignated), including Listed Buildings of all grades, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens and Registered Battlefields. The methodology and scope of the assessment has been subject to consultation with English Heritage, Central Bedfordshire Council and Bedford Borough Council.

9.1.2. The RRF will be constructed in Rookery South Pit and, as a result, will have almost no direct impact on the heritage resource. There is potential for disturbance of currently unrecorded sub-surface archaeological features during those construction works that take place outside of the pit of minor significance but this can be fully mitigated through an approved programme of archaeological works.

9.1.3. The RRF will be visible over relatively long distances, raising the potential for visual effects on the setting of heritage assets in the surrounding area. Systematic review of all heritage assets out to 3km and a more selective review up to 10km from the RRF resulted in a short-list of 17 designated assets with potential for significant impacts on their setting. One asset (Ampthill Park House, a Grade II* Listed Building) was identified as experiencing Minor significance of effect on the setting.

9.1.4. Seven other assets were predicted to experience lesser impacts on their settings that were considered to be Not Significant.

9.1.5. Seven of the representative visual receptors (as defined by the LVIA) were agreed as appropriate photomontage locations through consultation with English Heritage, Central Bedfordshire Council and Bedford Borough Council. These demonstrate the effect of the Project on key representative visual receptors and/or heritage assets, and are provided in ES Volume II.

9.1.6. The mitigation of impacts on the setting of heritage assets has been addressed from an early stage in the design of the Project. Aspects of the design including choice of stack, massing and height of the main buildings and selection of material finishes have been developed in consultation with English Heritage, Central Bedfordshire Council and Bedford Borough Council with the aim of minimising adverse impacts.

9.1.7. Further reduction of impacts has been achieved through the Landscape and Ecological Strategy including the use of bunds and fringe woodland to screen the lower elements of the RRF.

9.1.8. Overall, one asset will experience a Minor effect on its setting, while all other assets will experience a Not Significant or no effect on their setting.

10.0 Ecology and Nature Conservation

10.1.1. An ecological impact assessment has been undertaken in accordance with current best practice. This identifies potential effects resulting from the construction and operation of the RRF and the significance of any consequent ecological impacts.

10.1.2. The scope of the assessment was agreed in advance following consultation with Natural England, the Environment Agency, the Wildlife Trust for Bedfordshire and the Landscape Officer from Central Bedfordshire Council. Key agreements reached in consultation with these stakeholders were:

1) impacts, including air quality impacts, on habitats in designated sites within 10km of the RRF, as well as on ecological receptors currently associated with The Rookery, should be assessed;

2) in the absence of any European Sites within 10km of the RRF, a Habitats Regulation Assessment is not necessary; and

3) in defining the relevant baseline for the assessment, it should be assumed that the LLRS has been implemented as planned prior to commencement of construction of the RRF.

10.1.3. A detailed assessment indicates the Project has the potential to impact upon some ecological receptors within The Rookery, but that simple measures are capable of managing and avoiding these impacts. The Landscape Strategy will incorporate the necessary measures and also deliver enhancements through planting of additional woodland and scrub habitats, creation of wetland habitats and inclusion of vegetated surfaces on the EfW building.

10.1.4. In addition, a detailed assessment of the impact of air quality change on habitats in sites designated for their nature conservation interest within 10km has been completed. This concludes that that operation of the EfW Facility will have No Significant impact on the habitats present within these designated sites.

11.0 Land and Water Quality

11.1.1. This assessment was informed by undertaking both a Phase 1 Desk Study of the Application Site and a Phase 2 Ground Investigation. The ground condition data gathered from these studies was assessed using published generic assessment criteria to screen the Application Site and establish whether there are actual, or potential, unacceptable risks from existing or historical land uses.

11.1.2. Whilst the initial desk study identified some potential sources of contamination could be present at the Application Site, the ground investigations confirmed a general absence of these sources. There were no elevated concentrations of potential soil contaminants.

11.1.3. The Application Site is in a relatively low sensitivity setting for the following reasons:

1) there are no significant groundwater abstractions within the vicinity;
2) there are no groundwater source protection zones on, or overlapping the Application Site;
3) the secondary aquifers of the kellaways sand and cornbrash formation are of limited thickness, low permeability and poor quality; and
4) the principal aquifer of the blisworth limestone formation is of low permeability, poor quality and is protected by the overlying blisworth clay formation.

11.1.4. The assessment identified the following potential hazards: high groundwater levels, potentially unstable slopes, potential construction related contamination sources, potential future contamination sources (from the MRF, waste bunker, hazardous materials storage area).

11.1.5. Mitigation measures have been identified: incorporation of environmental management procedures during and after construction to control hazardous substance storage areas; inclusion of trapped gullies, petrol interceptors and isolation valves to control the potential for diffuse pollution from surface water run-off; provision for silt collection from accumulated surface waters prior to discharge to Mill Brook; and appropriate piling procedures to avoid mixing of groundwater bodies where necessary.

11.1.6. Evaluation of potential pollution linkages (routes by which receptors can be affected by contamination) has shown that the overall geoenvironmental risks associated with the Application Site are Low or Very Low.

12.0 Hydrology and Flood Risk

12.1.1. A Flood Risk Assessment (FRA) has been prepared in accordance with current planning policy and following consultation with the Environment Agency and Bedfordshire and River Ivel Internal Drainage Board. It considers the risk of flooding to the Application Site from the adjacent Mill Brook watercourse and measures for the management of surface water run-off.

12.1.2. The analysis undertaken to inform the FRA indicates that floodwater may spill into the south-east corner of Rookery South Pit during the 1 in 100 year event. However any flood water discharging into Rookery South Pit will be intercepted and routed to the attenuation pond. On this basis, it has been agreed with the Environment Agency that, following completion of Phase 1 of the LLRS, the site of the RRF would be classified as Flood Zone 2 (medium flood risk). The guidance set out in Planning Policy Statement 25 (Development and Flood Risk) indicates that construction of the RRF within Flood Zone 2 is appropriate from a flood risk perspective.

12.1.3. The FRA has shown that the surface water drainage strategy implemented as part of the LLRS is sufficient to accommodate the surface water run-off arising from the proposed RRF. On this basis, the LLRS and the RRF are shown to be compatible and the RRF will be categorised as nil detriment in terms of off-site/downstream flood risk impacts.

12.1.4. Overall, the effects of the Project upon local hydrology and flood risk will be Not Significant, and there will be no residual or cumulative effects. It is therefore considered that the proposals fully comply with current legislation and national, regional and local planning policy in respect of development and flood risk.

13.0 Socio-Economics

13.1.1. The Socio-Economic Assessment considered the likely effect of the Project on the local economy and community. Local economic policy concentrates on sustaining economic growth in the region with a desire to reduce the amount of out-commuting by providing more opportunities for local employment.

13.1.2. A profile of the local community was created using national databases, which reviewed unemployment and deprivation in the area. The results of this profile show that the local community has a growing number of Job Seekers Allowance claimants, indicating growing unemployment, which matches the current national trend. However, the area also enjoys an overall high quality of life when compared with national deprivation levels.

13.1.3. The assessment concludes that the Project would provide an average workforce of 320 persons during construction and 80 full time jobs available for local people during operation. These jobs would be available to local people in an area where there is growing unemployment rate and provide an opportunity to reduce out-commuting.

13.1.4. There are improvements to the rights of way network and a visitor centre/educational facility which can be used by local people. The conclusions of the air quality, transport, noise and landscape and visual assessments report no significant impact on the local community.

13.1.5. Covanta are offering a number of enhancement measures for the local economy which are the Community Trust Fund, Marston Vale Trust Fund and local subsidised fuel bills. As a result of the findings and proposed enhanced measures the operation of the RRF is considered to provide a benefit to the local economy and community.

13.1.6. Overall, the effects of the Project on Socio-Economics will be Not Significant, with a minor to moderate positive impact on the local economy and minor benefit to improved local facilities. It is considered that the proposals comply with the requirements of national and local socio-economic policy.

14.0 Further Information

14.1.1. Further information about the EIA is contained in the full ES which can be inspected at the following locations:

1) The Infrastructure Planning Commission, Temple Quay House, Temple Quay, Bristol. BS1 6PN;
2) Bedford Central Library, Harpur Street, Bedford. MK40 1PG;
3) Ampthill Library, 1 Dunstable Street, Ampthill, Bedford. MK45 2NL;
4) Wootton Library, Lorraine Road, Wootton. MK43 9LH;
5) Borough Hall, Bedford Borough Council, Cauldwell Street, Bedford. MK42 9AP;
6) Priory House, Central Bedfordshire Council, Monks Walk, Chicksands, Shefford. SG17 5TQ; and
7) Marston Vale Forest Centre, Marston Vale Millennium Country Park, Station Road, Marston Moretaine, Bedford. MK43 0PR.

14.1.2. Copies of the ES either as hard copy or on CD can be obtained from:

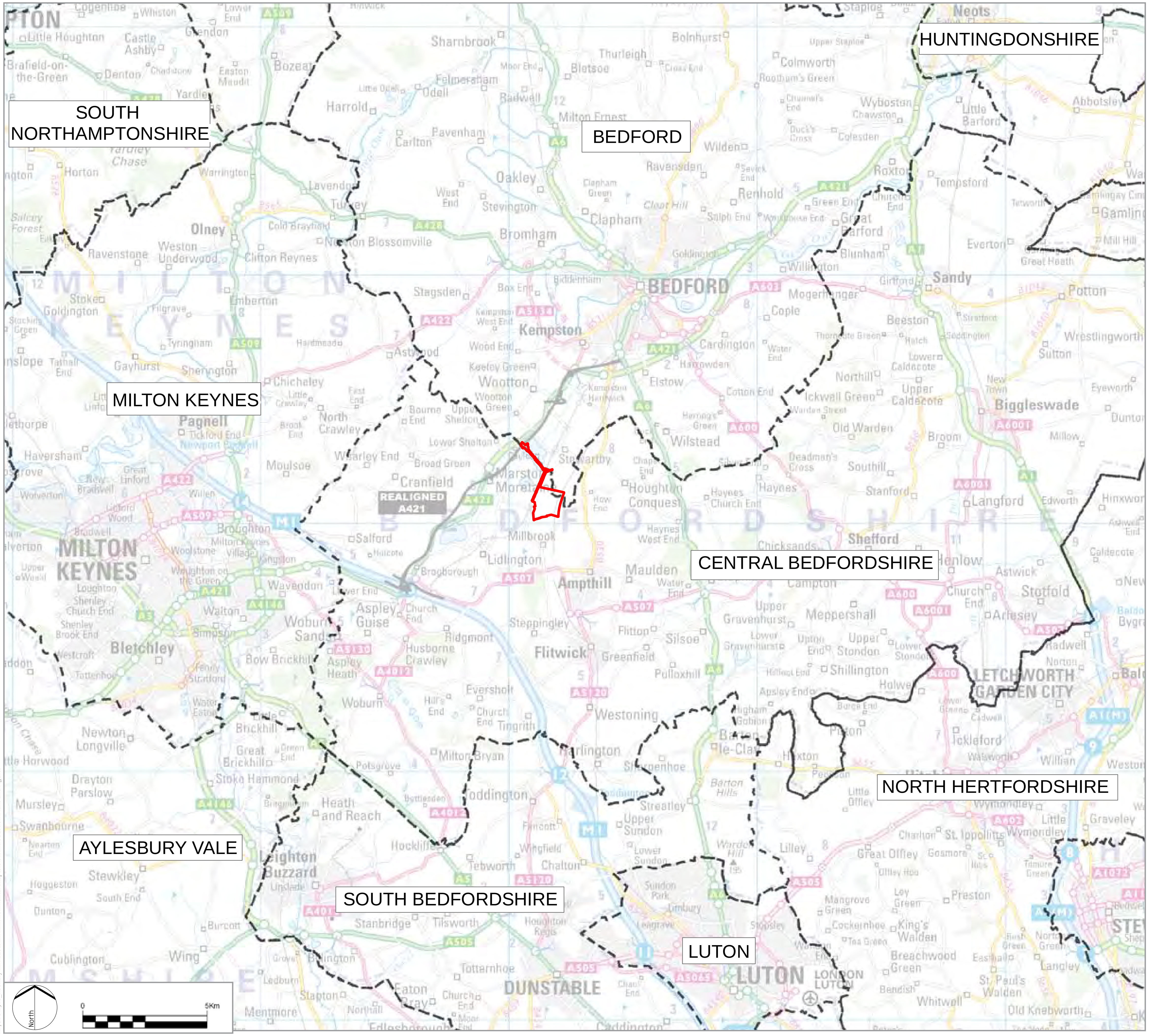
Covanta Rookery South Limited
Unit 7, Water End Barns
Eversholt
Milton Keynes
MK17 9EA

Information line telephone number: 0844 967 1101

Please note a charge of £400 for Volume I, Text and Figures will be made to cover the costs of production and despatch.

Information regarding the ES is also available on this website:
rookerysouth@covantaenergy.co.uk

This Non Technical Summary is available free of charge.



LEGEND

Application Site

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PROJECT TITLE
ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

DRAWING TITLE
Figure 1.1
Location of the Project

ISSUED BY **London** T 020 7467 1470

DATE	28/07/2010	DRAWN	RP
SCALE@A3	1:150,000	CHECKED	MME
STATUS	FINAL	APPROVED	CG

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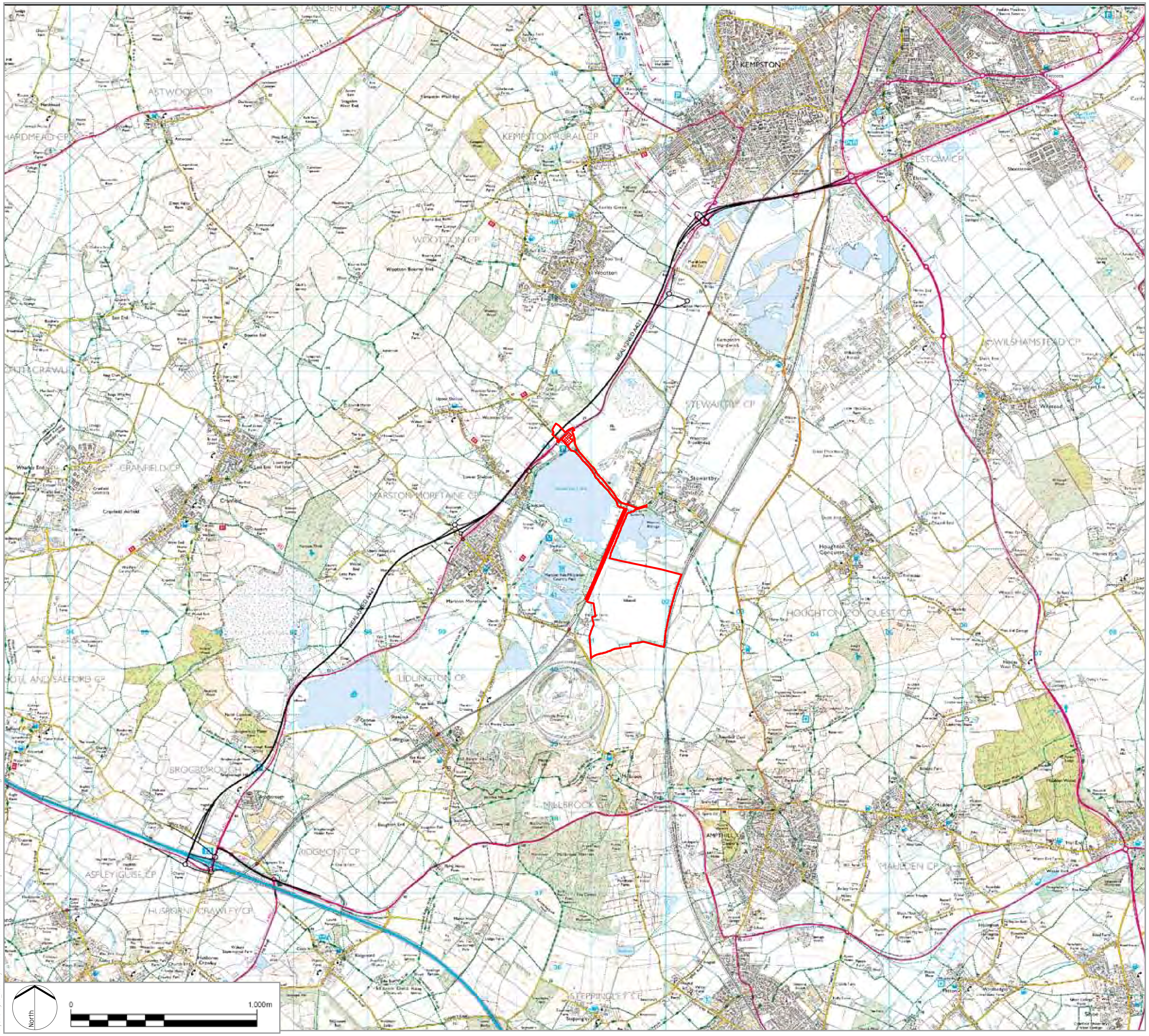
Area measurements for indicative purposes only.



LEGEND

Application Site

Not included in Application Site

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PROJECT TITLE

ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

DRAWING TITLE

Figure 2.1
The Application Site Location

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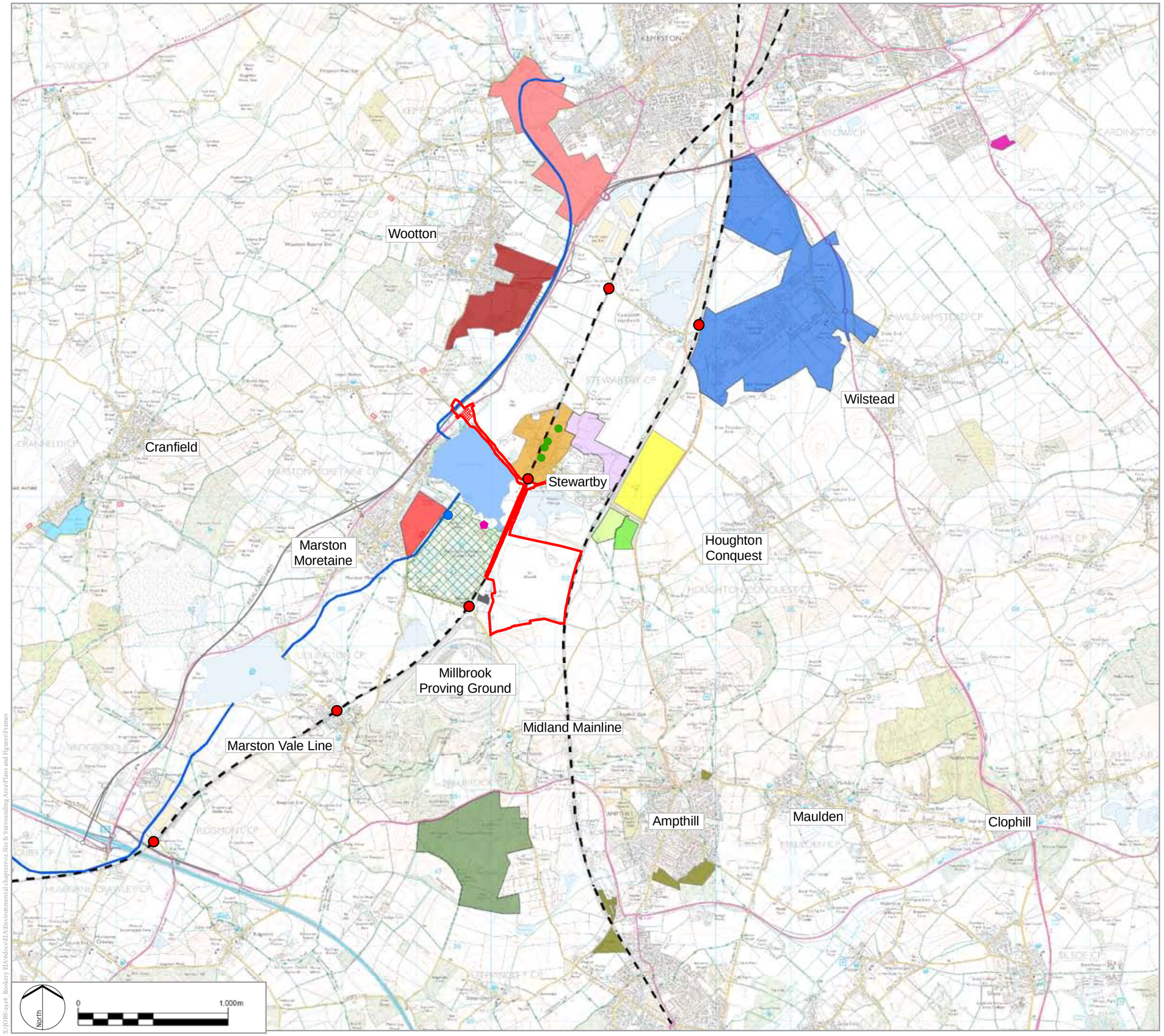

LEGEND

- Application Site
- Not included in Application Site
- Forest Centre
- Remaining Brickwork Chimneys
- Railway Station
- Indicative Bedford and Milton Keynes Waterways Canal Route
- Railway Line
- Marston Vale Millennium Country Park
- South Pillinge Farm
- Stewartby Lake

Local Major Developments without Planning Permission

- Proposed Wind Turbine
- Ampthill (Residential and Mixed Use)
- Cranfield (Employment)
- Extent of Stewartby Brickworks Application (Mixed Use)
- Stewartby Way 2 (Wildlife Habitats)

Local Major Developments with Planning Permission

- Land off Broadmead Road (Residential)
- West of Kempston (Residential)
- Marston Moretaine (Mixed Use)
- Nirah (Scientific Research Centre)
- Shortstown (Mixed Use)
- Stewartby Way 1 (Flood Mitigation Facility)
- The Wixams (Mixed Use)
- Warren Woods Center Parcs (Lesiure Recreation)
- Wootton (Mixed Use)

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ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

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Figure 2.2
Application Site and Development Context

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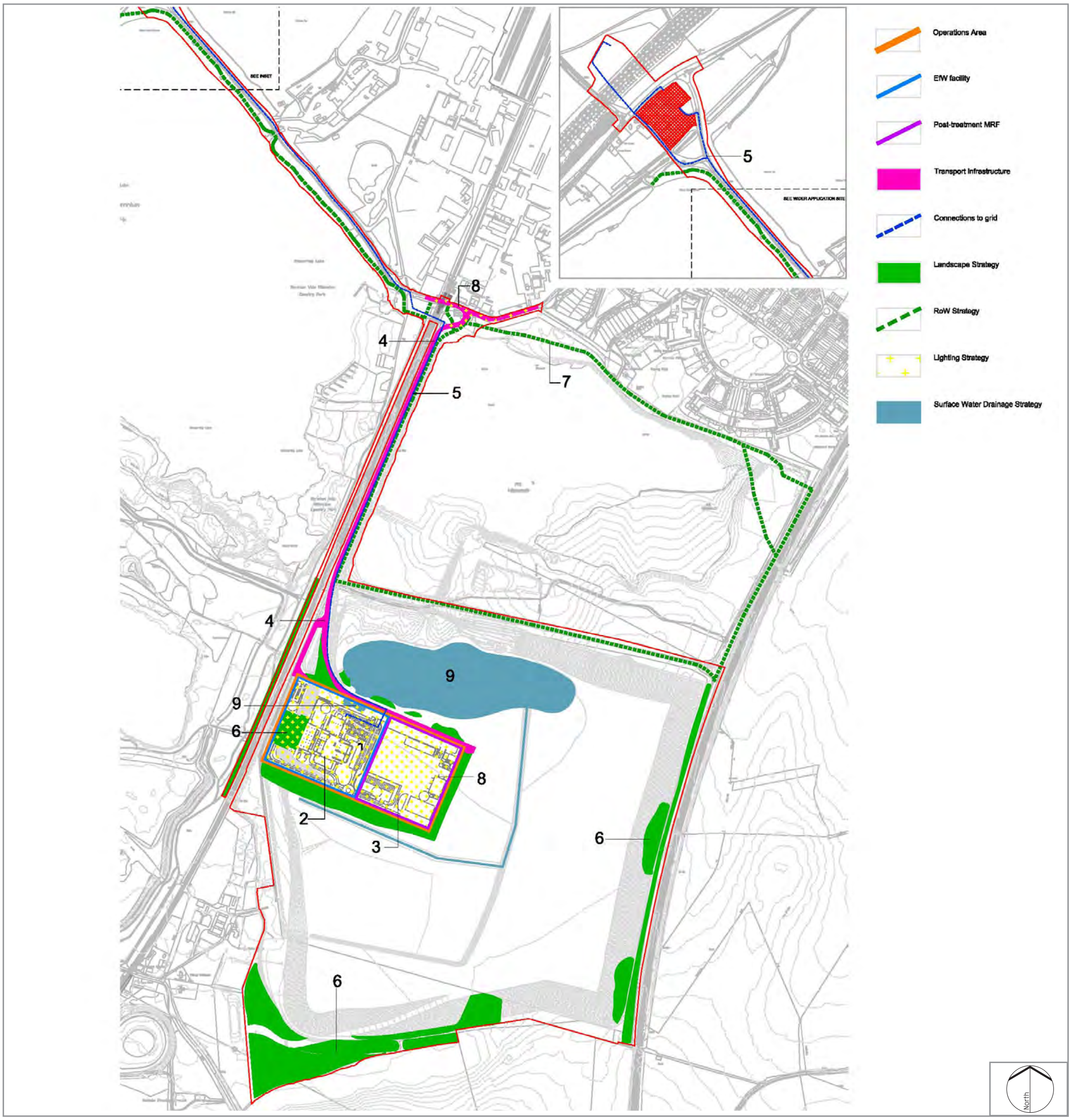
PROJECT TITLE

ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

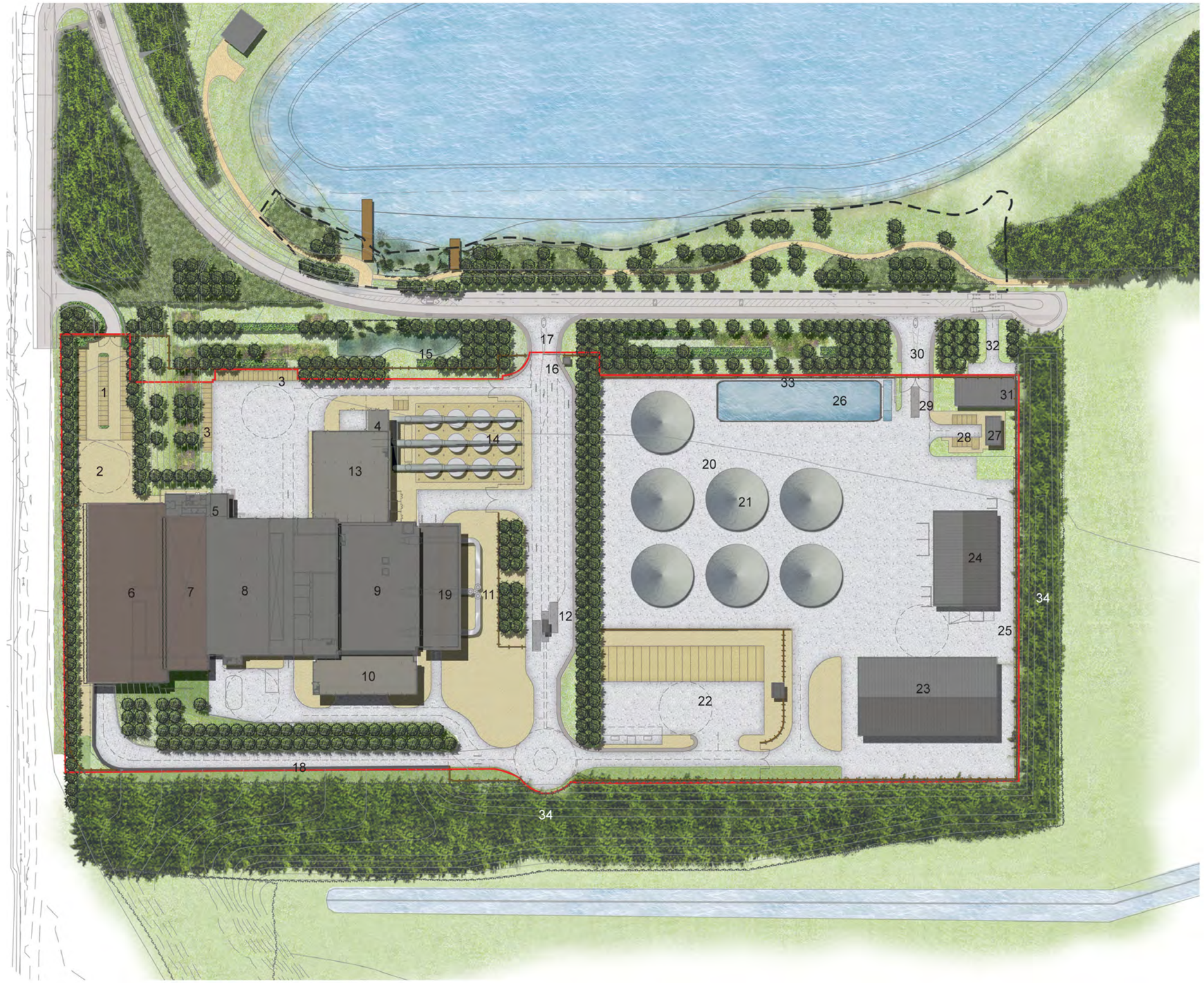
DRAWING TITLE

Figure 3.1
Key Components of The Project



LEGEND

1. Operations Area
2. EfW Facility
3. MRF
4. Transport infrastructure
5. Connection to grid
6a. Landscape Strategy
6b. Landscape Strategy (Brown Roof)
6c. Landscape Strategy (Wetland)
7. Public Right of Way Strategy
8. Lighting Strategy
9. Surface Water Drainage Strategy



LEGEND

- Trees
- Woodland
- Shrub planting/ understorey
- Hedgerow
- Grassland
- Meadow grassland
- Reeds/aquatic vegetation
- Water body
- Access Road
- Internal road
- Hard surface
- Security fence
- 3m high acoustic fence
- Wall
- Brown Roof
- Operations Area
- INDICATIVE LAYOUT ONLY further design development to be undertaken with relevant consultees

Proposed EfW Facility

1: Admin and visitor car park (48 no. spaces)
2: Forecourt (inc. coach turning)
3: Operational staff car park (32 no. spaces)
4: Transformer Compound
5: Admin building and visitor centre / education facility
6: Tipping hall
7: Refuse bunker
8: Boiler house
9: Flue gas treatment area
10: Workshop and stores
11: Stack
12: Weigh bridge and security gatehouse
13: Turbine hall
14: Air cooled condensers
15: Surface water attenuation
16: Automatic gates
17: Access to EfW Facility
18: Steep retained inner slope
19: Silo Area

Proposed MRF

20: Screened aggregate storage yard
21: Indicative aggregate storage piles
22: HGV parking
23: IBA storage
24: IBA processing
25: Security Fence
26: Water Collection Lagoon
27: Staff admin block
28: Staff car park (10 no. spaces)
29: Aggregate weigh bridge
30: Access to MRF
31: Foul water pumping station
32: Access to pumping station
33: Wall to storage yard

External to Operations Area

34: Perimeter Bund

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ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

DRAWING TITLE

Figure 3.2
The RRF Operations Area

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SCALE@A3	1:1000	CHECKED	AK
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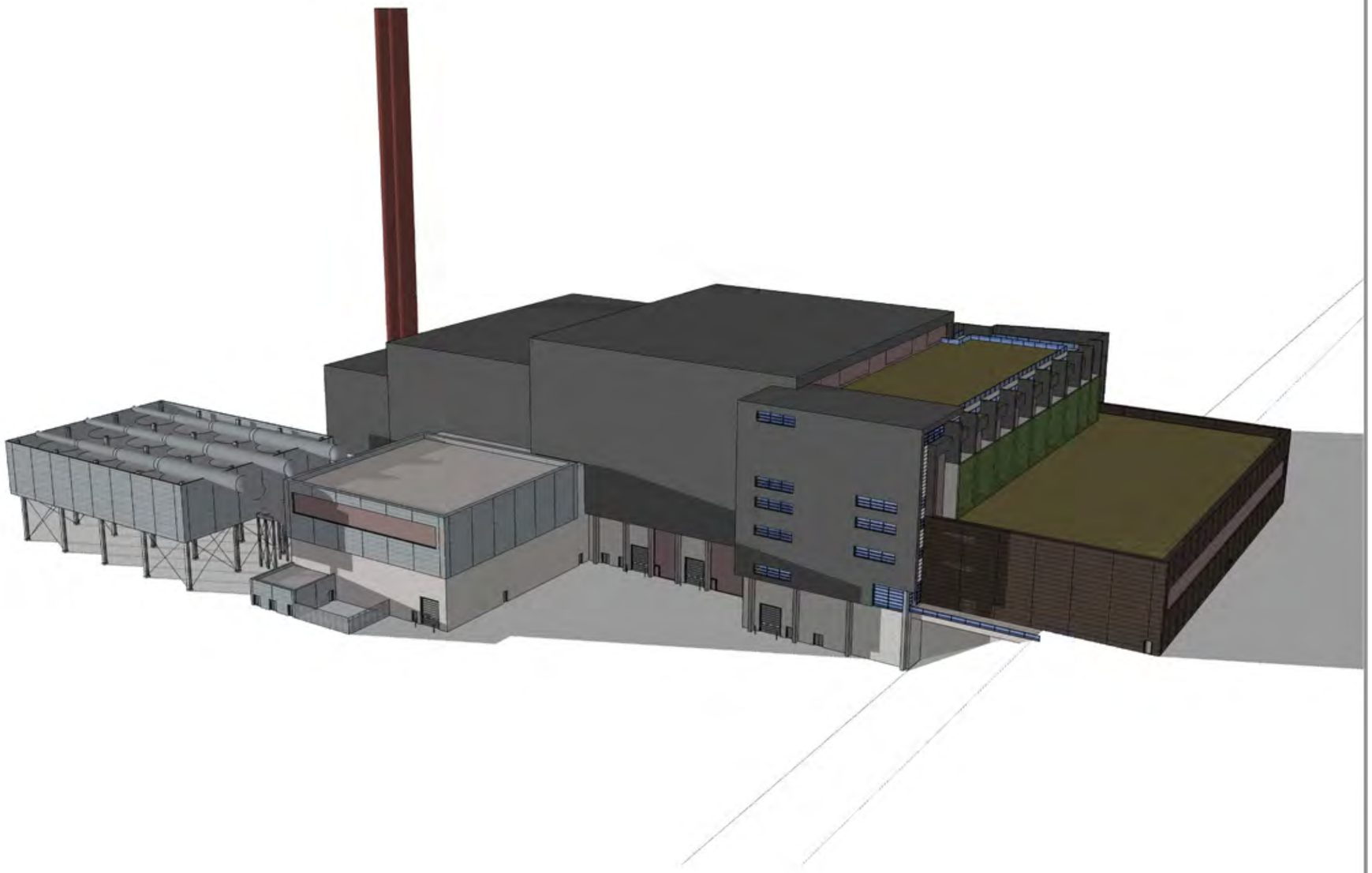

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ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

DRAWING TITLE

Figure 3.3
Computer Generated Image of the EfW Facility

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DATE	28/07/2010	DRAWN	AJS
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STATUS	FINAL	APPROVED	AL

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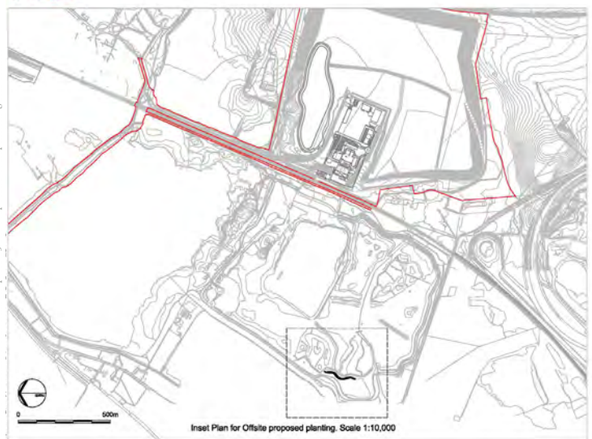
Area measurements for indicative purposes only.

Sources:

Inset detail: Off-Site proposed planting

REFER TO DRAWING No. 2807/LO/Planning/005
FOR INDICATIVE SCHEME LAYOUT: Green Lane
Country Park & RRF Entrance

REFER TO DRAWING No.
2807/LO/Planning/006 for Planting
Strategy: Operations Area



Inset Plan for Offsite proposed planting. Scale 1:10,000

LEGEND

- Application Site / Order limits
- Existing planting outside of the Application Site / Order limits
- Existing planting within the Application Site /Order limits
- Existing planting proposed to be retained and managed
- LLRS Planting
- Proposed woodland and shrub planting
- Planting subject to agreement with Marston Vale Trust
- Proposed woodland interplanting on bund
- Proposed specimen tree planting
- Proposed hedgerow
- LLRS hedge
- Scrub planting
- Proposed brown roof planting
- Proposed green wall planting
- Proposed grass
- Proposed meadow / grass
- INDICATIVE LAYOUT ONLY - Further design development to be undertaken with relevant consultees
- Proposed wetland planting
- Existing water bodies
- LLRS water bodies
- RRF water bodies
- Existing contours
- Proposed contours

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PROJECT TITLE

ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

DRAWING TITLE

Figure 3.4
Landscape Strategy

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ROOKERY SOUTH RESOURCE RECOVERY FACILITY
ENVIRONMENTAL STATEMENT: NON-TECHNICAL SUMMARY

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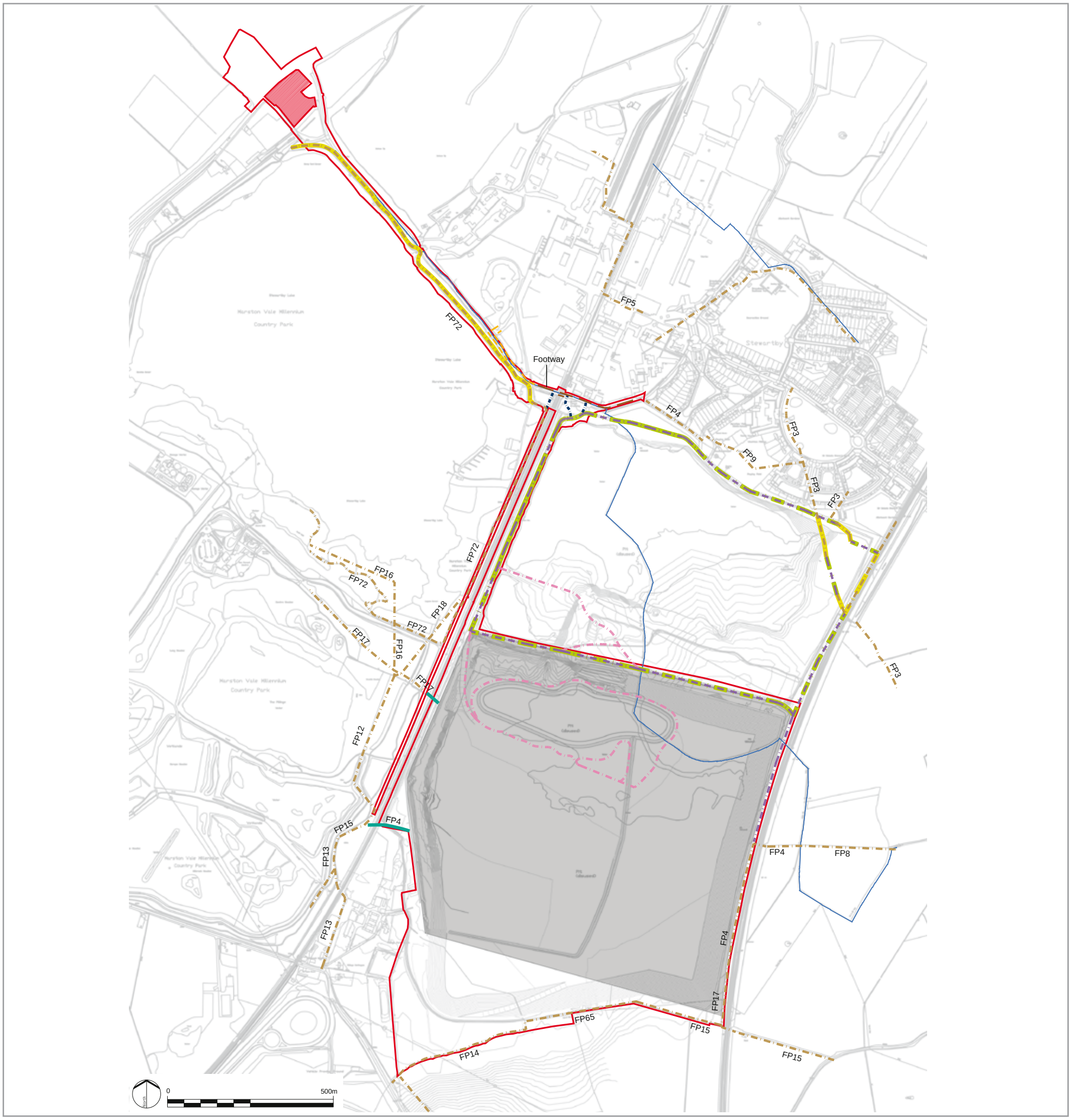
STATUS	FINAL	APPROVED	AK

DRAWING TITLE

Figure 3.5
Rights of Way (ROW) Strategy



LEGEND

- Application Site
- Not included in the Application

Existing
- RoW
- Footway

- RoW to be stopped-up

Proposed (as part of LLRS)
- Dedicated RoW (pedestrian rights only)
- Permissive RoW

Proposed (as part of RRF)
- Dedicated RoW (pedestrian and cycle rights)

- Upgrade of Dedicated RoW by ROMP to incl cycle rights
- Upgrade of Existing Dedicated F include cycle rights
- Rights of Way Extinguishment a within Rookery Pit South

Other
- Proposed footway by Hanson HQ (Committed)

Boundaries
- Boundary between Central Bec and Beds Borough

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