



Leeds
CITY COUNCIL

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Report of the Chief Planning Officer

CITY PLANS PANEL

Date: 10th April 2014

Subject: The construction and operation of an Anaerobic Digestion Plant and associated ancillary infrastructure At Knostrop Sewage Treatment Works, Knowsthorpe Lane, LEEDS (13/05378/FU)

APPLICANT

Kelda Water Services Limited

DATE VALID

11.12.2013

REVISED TARGET DATE

11.04.2014

Electoral Wards Affected:

**Burmantofts & Richmond Hill
Temple Newsam**

Yes

Ward Members consulted
(referred to in report)

Specific Implications For:

Equality and Diversity

Community Cohesion

Narrowing the Gap

RECOMMENDATION: GRANT PLANNING PERMISSION - Subject to the condition set out below and any other conditions that the Chief Planning Officer considers necessary.

Conditions

1. Time Limit (3 years)
2. Development in accordance with approved plans
3. Full details of materials (including solar panels) and proposal colour scheme for all plant
4. The visibility splay shall be kept free of all obstructions to visibility greater than 1m in height
5. Construction management plan
6. A scheme detailing surface water drainage arrangements achieving allowable Greenfield rate of 5 litres/second/hectare

7. Surface water run-off from areas used by heavy goods/service vehicles shall be passed through an oil / petrol interceptor. Roof water shall not be passed through the oil /petrol separator.
8. The drain/ditch watercourse along the south boundary of Site B shall be preserved during the course of the works. A scheme shall be agreed to prevent spoil being washed down/deposited into the drain ditch in order to prevent silting up and blockages downstream.
9. A scheme detailing how overflows from the bunded Treatment Plant Installation area and Main Receptor building and contaminated surface water would be managed and distributed to a separate on- site foul drain system.
10. A Geological Information report and a Stability Assessment report with stability calculations produce by a suitably trained practitioner.
11. Full cycle parking details
12. A biodiversity enhancement & management plan
13. No site clearance, or removal of any trees, shrubs or other vegetation shall be carried out during the period 1 March to 31 August.
14. A method statement for the control and eradication of Japanese Knotweed, Giant Hogweed and Himalayan Balsam.
15. "Lighting Design Strategy for bats" shall be produced by an appropriately qualified ecological consultant.
16. Submission and implementation of a detailed landscape scheme concerning area A.
17. The bund concerns with area B shall be bladed to form a more rounded top to the mound. Submission and implementation of a detailed landscape scheme.
18. Landscape management (including the woodland to the western boundary)
19. A landscape management plan concerning the translocation of the existing soft landscaping on area A
20. Preservation of retained tree/hedge/bush.
21. Retained tree/hedge/bush fully safeguarded by protective fencing and ground protection.
22. Replacement of any landscape that dies or is in poor condition with the first 5 years.
23. Intrusive site investigations assessing ground conditions after historic mining
24. Hours of construction (including delivery and export) - 07:00 to 19:00 daily.
25. Hours of delivery and exporting - 07:00 to 19:00 on weekdays; 09:00 to 16:00 on Saturdays, and, no deliveries to take place on Sundays or Bank Holidays
26. Odour from the anaerobic digestion plant and associated infrastructure shall not be perceptible at the boundary of nearby sensitive premises.
27. Noise shall be at least 5dBA below the existing background noise level (L90) when measured at the nearest noise sensitive premises.
28. Contaminated land information - a Phase I Desk Study
29. Amended remediation statement.
30. On completion of the works a verification reports shall be submitted.

1.0 INTRODUCTION:

- 1.1 This planning application relates to the proposed development of an anaerobic digestion facility at Knostrop Waste Water Treatment Works (WWTW). The proposal has been submitted by Kelda Water Services who are a sister company of Yorkshire Water. The proposal would be connected to an existing substation and contribute to the energy demands of the WWTW.
- 1.2 The application is brought to Plans Panel at the request of Councillor Lyons who represents Temple Newsam Ward, which is located approximately 210m (at the closest point) to the north-east of the site. Councillor Lyons is concerned regarding the environmental disruption of another energy management facility in addition to other industries in close proximity to his constituents that may cause ill health and detriment.

2.0 SITE AND SURROUNDINGS:

- 2.1 The proposal is situated on the operational land of the Knostrop Waste Water Treatment Works on Pontefract Lane. The proposed development site for the anaerobic digestion (AD) facility covers an area of approximately 4 hectares and is located to the north-west of the wider WWTW. Currently the site houses an earth mound; half of it would remain behind the proposal; some of it would be used within the development; and the remainder would be relocated to the south of the WWTW. There is a small woodland area adjacent to the western boundary of the site with WWTW buildings to northern, eastern and southern sides.
- 2.2 The site is identified within the Natural Resources and Waste Local Plan (NRWLP) as an existing industrial area that is a preferred location for waste management use. In addition, the development area is located within the boundary of the draft Aire Valley Area Action Plan (AVAAP) that will provide the future planning framework to guide the regeneration of an area of the Aire Valley. The site does not have a specific designation within the draft AVAAP. However, a key aspiration of the draft AVAAP is to promote the area as an Urban Eco Settlement (renewable and low carbon energy developments).
- 2.3 The WWTW is located within a predominantly industrial area. Skelton Moor Farm is located approximately 664m to the east of the AD facility. The closest residential area is Halton Moor approximately 750m north from the AD facility, with a number of structures between the two sites and vacant land allocated for employment. There are a number of bridleways listed as Public Right of Ways (PROW) to the north-east and east, the closest 220m to the north-east. The A63 is situated roughly 210m to the north.
- 2.4 Neither the proposed site nor the wider WWTW are situated within a conservation area. The draft Leeds City Council Green Infrastructure Network identifies the woodland just beyond the western boundary as a

Local Corridor that has potential for enhancement. The closest listed building is Thwaite Mills, which is approximately 800m to the south-west of the AD facility and 180m (at the closest point) from the earth mound. Within a 2km radius there are three Leeds Nature Areas (LNA). The closest, at a distance of approximately 1km north-east of the AD facility, is Temple Newsam Estate Woods.

3.0 PROPOSAL

- 3.1 The applicants seek full planning permission for a waste management facility that would be capable of treating up to 48,000 tonnes per annum (tpa) of organic waste to generate approximately 2.4MW of electricity. The proposed development is made up of two distinctive parts. Firstly, an area of land that is located to the north-west of the WWTW is proposed to be developed for the use of an AD facility. Secondly, the creation of a landscaping mound on a separate parcel of land to the south of the main WWTW using surplus material excavated from the development site.
- 3.2 The AD facility would provide conditions that encourage the natural breakdown of organic matter by bacteria in the absence of air, which will produce biogas and digestate. A Combined Heat and Power (CHP) system will then be used to process the biogas to generate heat and electricity. Heat from the process is used to warm the digester, while the remaining energy is converted into electricity and will be used to power the surrounding WWTW. The digestate, once pasteurised, will be used as organic fertiliser. During the process 30-60% of the digestible material is anticipated to be converted into biogas.
- 3.3 The receipt, separation and processing of organic wastes would take place inside a single storey pitched roofed building fitted with a negative air pressure system and measuring 42.6m long, 36.6m wide and 14.5m high to the ridge. The building was proposed to have a combination of insulated micro rib wall panels (painted khaki green) and natural cedar boarding. The roof would be covered in a trapezoidal insulated roof system coloured goose wing grey with a number of solar panels to the southern elevation.
- 3.4 Inside the reception hall, the waste will be moved into dedicated storage bays using a grabber. Any contaminated material will be identified and stored in the quarantine area/contamination skips when required. The waste will then be transferred via grabber into the de-packing plant (located within the building) where water will be added to create a 'slurry' that can be subsequently transferred to one of two reception tanks (approximately 11m x 7m high) via underground pipes.
- 3.5 The air extracted from the reception hall and other areas of the building will be passed through a biofilter (approximately 9m x 20m x 3.8m high) to remove odourous compounds. The 'scrubbed' air will then be released to the atmosphere via the dedicated biofilter stack (approximately 1m x 14.5m high).

- 3.6 The material is then pumped (again via underground pipes) from the reception tanks to the primary digester (which forms the inner core of the digester unit, which measures approximately 38m diameter x 8m high). The digesters are heated and insulated concrete tanks which contain mixing arms (these are hydraulic pumps) which mix the waste to ensure optimum conditions for digestion. Material from the primary digester is then fed, via pipe, into the secondary (outer) digester via a central pumping station. Any gas produced in the reception tanks and primary digester is also piped to the secondary digester where it mixes with the gas being produced in that digester.
- 3.7 The remaining material (known as digestate) is then piped to one of three pasteurisation plants where it is pasteurised using heat. Hot water from the CHP engines is supplied to the pasteurisation equipment and is circulated around a water jacket surrounding the tank. The material within the pasteurisation unit will be heated to $>70^{\circ}\text{C}$ and held at that temperature for a minimum of 1 hour to ensure pasteurisation of the material.
- 3.8 Following pasteurisation, the digestate mixture is transferred to the separator which removes larger solids. Solid material captured typically includes debris such as plastic, stones, timber and other inert or particulate material that is not digestible in the AD process. This material is transferred off site to a suitable waste treatment facility. The remaining liquid digestate mixture is then piped to the digestate store tank.
- 3.9 The gas generated within the digestion unit is fed via pipe to the gas membrane collection and storage roof of the digestate storage tank (approximately 35m diameter x 16m high). This gas storage tank is required in order to store gas that can be used to compensate for fluctuations in gas production, ensuring uniform operation of the CHP plant (approximately 3m x 13m x 5.2m high).
- 3.10 The biogas is piped from the digestate storage tank to the CHP engine which combusts the gas to generate electricity. The engine produces an output of 2.4MW electricity. Emissions from the combustion process are cleaned prior to release via a dedicated stack (approximately 0.4m diameter x 30.5m high).
- 3.11 The electricity produced is transferred via underground cable to the existing electricity substation located to the south of the site. In the event that too much gas is produced the excess gas will be disposed of via an emergency high temperature flare (approximately 1.2m diameter x 10m high).
- 3.12 In terms of ancillary facilities the AD facility would comprise of a weighbridge; weighbridge office (approximately 3.5m high); and, welfare office (approximately 3.5m high). In addition to this, the proposal incorporates several pieces of ancillary plant and equipment to the south (on the WWTW operational side) of the reception hall and tanks that would aid the process. The development also includes 7 parking spaces and circulation areas and on site landscaping.

- 3.13 To enable the project, the removal of approximately half of an existing landscaped earth mound would be necessary. The portion of the mound to remain is proposed to be positioned to the south of the development and will be graded back to avoid the need for a large retaining wall. A proportion of the material would remain within the development site for landscaping. The earth surplus is to be relocated to the south of WWTW. The surplus material plus material already located on the southern site would be used to form one bund. The bund would be planted with a meadow mix.
- 3.14 The site would be accessed separately from the WWTW via Knowsthorpe Road off Pontefract Lane. The applicant anticipates that an average 42 HGV loads would arrive at the site per day (84 two way trips). This accounts for both food waste deliveries to the site and vehicles removing digestate. The facility would operate 24 hours a day although deliveries and exports would be expected to be limited to 7am to 7pm on weekdays; 9am to 4pm on Saturdays, and, no deliveries would take place on Sundays or Bank Holidays. It is envisaged that 15 people would be employed on a shift basis.

4.0 HISTORY OF NEGOTIATIONS AND PLANNING HISTORY

- 4.1 Officers have sought to improve the design of the reception hall given its proximity to the East Leeds Link Road and the general ambition to improve the character and appearance of the Aire Valley. The belt of trees to the western boundary are currently unmanaged so officers have requested that their management be included as mitigation for the loss of the vegetation on the existing mound.
- 4.2 The applicant submitted a pre-application enquiry on the 20th November 2012. A pre-application presentation was made to Plans Panel on the 4th July 2013. Members were of the opinion that the principle was acceptable subject to further design details (including views from the A63 East Leeds Link Road), a detailed landscaping scheme (including enhancements to the existing western tree belt), limiting any adverse impact on existing wildlife and a full assessment of the potential harm to residential amenity. Members expressed an interest in visiting a similar facility prior to determination.
- 4.3 08/03836/FU: Erection of 1 wind turbine, with hardstandings, new and upgraded access tracks and electrical sub-station. Approved on 20.10.2009. The turbine will be sited approximately 400m to the south-east of the proposed development.
- 4.4 07/05223/FU: Landscape bunding to water treatment works. Approved on 15.11.2007
- 4.5 21/42/96/MIN: Detached electricity sub-station to water treatment works. Approved on 29.02.1996

Skelton Moor Farm, Pontefract Lane

- 4.6 21/13/04/OT: Outline application to erect B1/B2/B8 development with supporting hotel, creche and A2/A3/A4 uses. Approved on 26.04.2006 with 10 years to submit reserved matters.
- 4.7 08/02836/RM: Laying out of access road and erection of warehouse unit with ancillary offices, gate house, car parking, cycle/motorcycle shelters and landscaping. Approved on 05.08.2008
- 4.8 11/04915/FU: Engineering works to form flood relief channel. Approved on 12.03.2012

5.0 PUBLIC/LOCAL RESPONSE

- 5.1 The application was advertised via site notice on the 20th December 2013 and in the Yorkshire Evening Post on 20th December 2013. No letters of representation have been received. City and Hunslet, Burmantofts and Richmond Hill and Temple Newsam Ward Members were consulted on this application. One letter of objection was received from Councillor Lyons, which is summarised within paragraph 1.2.

6.0 CONSULTATION RESPONSES

Statutory

- 6.1 Coal Authority: No objection, subject to condition.
- 6.2 Environment Agency: No objection, subject to condition.
- 6.3 Highway Authority: Further information sought concerning the visibility splay of the access road and levels of staffing. No objection, subject to condition.
- 6.4 Highways Agency: No objection.

Non-Statutory

- 6.5 Conservation: No objection.
- 6.6 Land Contamination: No objection, subject to condition.
- 6.7 English Heritage: No objection.
- 6.8 Environmental Health: No objection, subject to condition.
- 6.9 Flood Risk Management: Further information was sought. However, after a discussion it was agreed that the information could be submitted via condition.
- 6.10 HSE: No objection.
- 6.11 Landscape: Additional information welcomed. Outstanding matters can be resolved through condition.
- 6.12 Local Plans: Acceptable in principle subject to the details of the facility meeting the criteria of policy Waste 9.
- 6.13 Nature Team: No objection, subject to conditions concerning detailed design and management.
- 6.14 National Grid: No objection.
- 6.15 Public Health England: No comments received.
- 6.16 Yorkshire Water: No comments are made.

7.0 RELEVANT PLANNING POLICIES

- 7.1 The introduction of the NPPF has not changed the legal requirement that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise. The policy guidance in Annex 1 to the NPPF is that due weight should be given to relevant policies in existing plans according to their degree of consistency with the NPPF. The closer the policies in the plan to the policies in the Framework, the greater the weight that may be given.

Local Planning Policy

- 7.2 The development plan for Leeds comprises the Unitary Development Plan (Review) 2006 the Natural Resources and Waste Local Plan (2013). The draft Core Strategy has been through examination and it can therefore be given considerable weight.

Natural Resources and Waste Local Plan 2013 (NRWLP)

- 7.3 The Natural Resources and Waste Local Plan was adopted by Leeds City Council on 16th January 2013. It forms the most up-to-date development plan for Leeds and holds very significant weight in the determination of this application. The main *determining* policies in respect of this document are:

- General Policy 1: Presumption in favour of sustainable development;
- Energy 3: Heat and powder energy recovery from low carbon methods will be supported in principle subject to proposals meeting criteria contained within policy Waste 9;
- Waste 1: Sustainable waste management supported in principle at safeguarded sites;
- Waste 3: Sequential approach for developing a city wide network of waste management sites and facilities;
- Waste 4: Permanent waste management facilities will be treated as an industrial use of land;
- Waste 5: Waste uses within existing industrial areas;
- Waste 9: Potential impacts of the planned development must be avoided or mitigated against;
- Air 1: Emission measures to ensure any impact upon air quality is mitigated;
- Water 1: Developments should include measures to improve their overall water efficiency where appropriate;
- Water 6: Assessment of flood risk;
- Water 7: Sustainable drainage – no increase in surface water run off;
- Land 1: Information concerning the status of the site in terms of contamination shall be submitted with any application; and,
- Land 2: Development should conserve trees wherever possible and also introduce new tree planting.

Where on site planting can not be achieved off-site planting or a contribution will be sought.

Unitary Development Plan Review 2006 (UDPR)

7.4 The UDPR was adopted by Leeds City Council on 19th July 2006 and holds significant weight in the determination of this application. The main determining policies of relevance to this application are:

- Policy GP5: Refers to detailed planning considerations and any loss of amenity;
- Policy N12: Priorities for urban design;
- Policy N13: Design and new buildings;
- Policy N17: Character and appearance of listed buildings shall be preserved;
- Policy N26: Development and landscape schemes;
- Policy N27: Development of site boundaries;
- Policy N49: Nature conservation;
- Policy N51: Nature conservation and enhancement;
- Policy T2: Refers to maintenance of highway safety;
- Policies T2B - T24: Travel demand and sustainable methods of travel;
- Policy E1: Retention of Existing Firms and Growth of New Economic Sectors;
- Policy R1: Air Valley Leeds;
- Policy LD1: Outlines the parameters for an acceptable landscaping schemes;
- Policy BD4: Plant equipment and service areas;
- Policy BD5: Amenity and new buildings; and,
- Policy BD14: Flood lighting scheme.

Leeds Core Strategy

7.5 The Consolidated Core Strategy comprising Publication Draft Feb 2012 and Pre-Submission Changes Dec 2012 (CD01) has been through examination by the Secretary of State. The Inspector has identified a number of proposed main modifications which have been approved by the Council's Executive Board for consultation. Accordingly considerable weight can be attached to the Core Strategy policies as amended by the proposed main modifications as there is a strong possibility that the Plan will ultimately be adopted in this form. The Proposed Main Modifications Schedule 1 (March 2014) will be published for consultation in mid-March 2014.

7.6 The Core Strategy sets out strategic level policies and vision to guide the delivery of development investment decisions and the overall future of the district. The policies of relevance to this application are:

- Spatial Policy 1: Location of development - to deliver the spatial development strategy based on the Leeds settlement hierarchy;

- Spatial Policy 4: Regeneration priority programme areas. Priority will be given to developments that improve ... access to employment and skills development, enhance green infrastructure and greenspace, upgrade the local business environment...;
- Spatial Policy 5: Aire Valley Leeds urban eco-settlement;
- Spatial Policy 8: Economic development priorities. (viii) Supporting development in existing locations/sites for general industrial and warehouse, particularly in locations which take full advantage of existing services, high levels of accessibility and infrastructure...;
- Spatial Policy 13: Strategic green infrastructure;
- Policy P10: Design. New development for buildings and spaces, and alterations to existing, should ... provide good design that is appropriate to its location, scale and function;
- Policy P12: The character, quality and biodiversity of Leeds' townscapes and landscapes, including their historical and cultural significance, will be conserved and enhanced to protect their distinctiveness through stewardship and the planning process;
- Policy T2: New development should be located in accessible locations that are adequately served by existing or programmed highways, by public transport and with safe and secure access for pedestrians, cyclists and people with impaired mobility;
- Policy G1: Enhancing and extending green infrastructure;
- Policy G8: Protection of important species and habitats;
- Policy G9: Biodiversity improvements;
- Policy EC3: Safeguarding existing employment land and industrial areas.
- Policy EN2: Sustainable design and construction;
- Policy EN3: Low carbon energy. The Council supports appropriate opportunities to improve energy efficiency and increase the large scale (above 0.5MW) commercial renewable energy capacity, as a basis to reduce greenhouse gas emissions. This includes wind energy, hydro power, biomass treatment, solar energy, landfill gas, and energy from waste;
- Policy EN5: Managing flood risk;
- Policy EN6: Sets out the broad strategy for managing waste in Leeds. The strategy will be implemented through more detailed policies and related documents as set out in the Natural Resources and Waste Local Plan.

- 7.7 The City Council is preparing an Area Action Plan (AAP) which will provide the future planning framework to guide the regeneration of an area of the Lower Aire Valley. This area has been identified as one of Leeds City Region's four Urban Eco Settlements (UES), a designation which is recognised formally under draft Policy SP5 of the Core Strategy.
- 7.8 The latest proposals map does not show the site within an area allocated for a particular use but a key aspiration of the AVAAP is to promote the area as an Urban Eco Settlement (renewable and low carbon energy developments). Due to the AVAAP being in a relatively early stage of preparation, its policy content would currently be likely to attract minimal weight.

National Planning Policy

- 7.9 The National Planning Policy Framework (NPPF) and Planning Policy Statement 10 – Planning for Sustainable Waste Management (PPS10) are the relevant national guidance in this case.

Planning Policy Statement 10 – Planning for Sustainable Waste Management

- 7.10 The context for waste on a national level is set within the National Waste Management Plan for England (December 2013) but policy on waste planning continues to be provided within PPS10. PPS10 was published in July 2005 and later revised in March 2011 to take account of the 2008 EU Waste Framework Directive. PPS10 is accompanied by a Companion Guide and is the current national policy document directed at waste related planning proposals.
- 7.11 The overall objective of Government policy on waste is to protect human health and the environment by producing less waste and by using it as a resource wherever possible. By more sustainable waste management, moving the management of waste up the 'waste hierarchy' of prevention, preparing for reuse, recycling, other recovery, and disposing only as a last resort, the Government aims to break the link between economic growth and the environmental impact of waste. This means a step-change in the way waste is handled and significant new investment in waste management facilities. The planning system is pivotal to the adequate and timely provision of the new facilities that will be needed.

National Planning Policy Framework

- 7.12 The NPPF (2012) does not contain specific waste policies but in taking decisions on waste applications, regard should be had to policies in the NPPF so far as they are relevant. The NPPF includes policy guidance on sustainable development, economic growth, transport, design, enhancing the natural and historic environment and climate change. The NPPF advocates a presumption in favour of sustainable development and supports the delivery of renewable and low carbon energy. This is considered central to the economic, social and environmental dimensions of sustainable development.

7.13 The National Planning Policy Guidance is relevant.

8.0 MAIN ISSUES

- Principle of Development
- Design
- Landscape and Visual Impact
- Heritage
- Highway Safety
- Ecology and Biodiversity
- Air Quality and Public Health
- Noise

9.0 APPRAISAL

Principle of Development

- 9.1 The application relates to two separate parcels of vacant land within the operational land of WWTW off Knowsthorpe Lane. The application proposes the construction of an Anaerobic Digestion Plant to treat organic waste towards the northern end of the works which will require the excavation of part of an existing landscaping mound to create the development platform. The material excavated from the site would then be deposited on a separate parcel of land to the south to form a landscaping mound.
- 9.2 The NRWLP sets out that Leeds requires residual treatment facilities to deliver sustainable waste management and self-sufficiency. These types of facilities have specific operational needs, are best located in areas that are already industrial in nature and have good access to the transport network. Policy Waste 3 sets out a hierarchy of sites to meet these needs, which seeks to minimise environmental impacts and provide a sustainable strategy for waste by promoting locations that have good access, meet local needs and are previously developed land. This includes an approach to identify industrial estates suitable for new recycling, sorting, transfer and small-scale treatment and recovery processes such as Anaerobic Digestion.
- 9.3 The preferred locations for waste management facilities identified in policy Waste 3 are existing industrial areas. In accordance with national planning policy on waste management they are considered to be the most suitable location for new waste management processes in Leeds. Policy Waste 5 outlines specific sites within these broad industrial locations that would be considered suitable in principle, which includes the Cross Green Industrial Estate and land within the Knowstrop WWTW. Given these factors, the proposal is considered to be an appropriate location for a waste management facility.

- 9.4 Currently there are no other facilities in Leeds that solely treat residual organic (primarily food) waste. The application states that there are sufficient arisings of organic waste from within the Leeds area to feed the plant without sourcing waste from a wider area. This does accord with the estimates for organic waste in the Waste Topic Paper that supports the Local Plan. Additionally PPS10 states that there are no requirements for need to be established when considering applications for the management of waste.
- 9.5 The criteria for assessing whether the impacts of a waste management proposal are acceptable are set within policy Waste 9. The relevant aspects of this policy will be discussed in detail further on in the report.
- 9.6 The facility would have a capacity to treat a maximum of 48,000 tonnes of organic waste to produce biogas, which would be used to fuel a CHP engine. Digestate would be produced as a by-product of the process and could be used as a fertilizer once pasteurised. The plant would generate 2.4MW of electrical power that would be used to meet a proportion of the needs of the WWTW. The generation of low carbon energy at the facility is a further benefit of the proposals which is consistent with draft Core Strategy Policy EN3 and NRWLP Policy Energy 3.
- 9.7 In summary, the AD facility would be located within a preferred area, as identified by the NRWLP, for waste management uses. The proposal would offer a facility that would deliver a sustainable waste management facility and provide further to support to allow Leeds to be self-sufficient. Considering this and the above, the proposal is considered to comply with all the aforementioned policies.

Design

- 9.8 During the pre-application stage, the applicant was advised that detailed consideration should be given to the use of colour, the form of the buildings (the use of overhanging eaves would provide some shadow) and materials (perhaps a brick base, cladded top and different treatment to the corners). The applicant responded by submitting a proposal using grey for pipe work and roof areas, over hanging eaves, cladding and cedar boarding to 'introduce interest breaking up the expanse of one colour and is considered to be a more naturalistic aesthetic solution when viewed against the backdrop of the tree belt.'
- 9.9 The introduction of the over hanging eaves was considered an improvement. However, the manner in which the cladding and cedar was being utilised did not appear to have any particular logic but seemed ad-hoc. Furthermore, the use of cladding at ground level would introduce maintenance problems after a period of time due to damage inflicted by surface water. For these reasons, it was suggested to the applicant that they introduce a brick plinth all the way round the building and standardize the banding of cladding and cedar boarding.

- 9.10 The revised plans illustrated three distinctive bands of brick (to the bottom), cladding (in the middle) and cedar boarding (to the top). The proportion of these materials was originally organised into thirds, which did not appear visually coherent, so the proposal was further revised to alter the portions to produce a higher quality design. Originally, the applicant proposed that the roofing materials would be coloured goosewing grey. However, considering the western belt of trees are situated in an elevated position behind the facility, officers consider that a shade of green or brown would be more appropriate.
- 9.11 The proposed layout incorporates the plant to the south of the reception hall with a landscaping belt to the northern boundary of the site to minimize the visual impact. The design of the reception tanks, digester and the digestate storage tank are very similar to those that currently exist on the wider WWTW. The landscape mound proposed to be left to the south of the site would be graded back.
- 9.12 During the questions and answer portion of the pre-application presentation to Plans Panel, Members asked if the design could 'incorporate other green aspects – a seeded roof for example'. A green roof was considered to be out of context with the existing industrial built structures. However, the introduction of solar panels to the southern aspect of the roof was thought to provide additional sustainable credentials to the facility and these have been added to the design.
- 9.13 The design of the reception hall is now such that it has enough detail to avoid it appearing as an overbearing 'shed' and being a dominant structure in the townscape. Colour has been used so the proposed infrastructure responds to its surroundings but is not overtly obvious in the streetscene. Considering this, the proposal is deemed to comply with the aforementioned policies concerning design.

Landscape and Visual Impact

Landscape Impact

- 9.14 The application site is currently a 12m high landscaped earth mound contained by a metal palisade security fence. The mound is planted with young vegetation. The landscape context of the site comprises the existing installations of the Knostrop WWTW including large scale buildings, storage tanks, settling pits, lighting and fencing. The proposals would be within the extensive industrial development of the works. Generally vegetation cover is scarce within the Treatment Works and adjacent industrial areas. However, to the west of the development site is a mature woodland block that separates the Treatment Works from the industrial area to the west.
- 9.15 The industrial estates of Knowsthorpe and Cross Green are the wider context to the north and west. To the north-east of the site the A63 separates the site from a further industrial area, Skelton Moor Farm and the golf course at Temple Newsam, Registered Park and Garden. The M1 motorway is to the east and the riparian landscape of the River Aire and Aire

and Calder Navigation defines the southern context beyond which is further industrial development.

- 9.16 Further from the site at a distance of 1 to 3 km the residential areas, on higher ground, that include Osmonthorpe and Halton Moor to the north and Rothwell and Middleton to the south. Occasional arable fields are evident between the residential areas and the site although it should be noted that these are likely to be developed over the longer term.
- 9.17 The area that would contain the excavated material currently consists of grassland including some low grassed spoil heaps. This area is south of a mature woodland belt that provides a boundary between the site and Cross Green Industrial Estate. To the south, the site is bounded by an internal access road and beyond this lies further mature vegetation, the river and then Thwaite Mills.
- 9.18 The proposal site is typical of the urban and industrial district of Leeds. The area has a poor landscape condition and a low sensitivity to change. The introduction of a group of relatively large scale buildings, infrastructure elements and a high stack into this location would form a visually prominent new element in an industrial setting. The applicant has proposed to include areas of native tree and shrub planting around the perimeter of the site and a 5m woodland buffer along the boundary with the existing tree belt. The use of native trees and shrubs would link the existing vegetation and create a buffer between other industrial sites.

Visual Impact

- 9.19 Close up views (or range) of the site are limited in extent. Views from the west and south of the building, tank and stack of the AD facility would be concealed by built form, vegetation and topography. People would gain relatively close range views from the A63 but, in the main, those using the A63 would be in vehicles so the views would be transient and of low sensitivity. Views would be possible from the adjacent bridleway but intervening landscaping and existing buildings would obscure a large proportion of the development from the majority of place leaving the taller elements visible. Those residing at Skelton Moor Farm and walkers using the non-definitive bridleway (Richmond Hill that runs north-south through the farmstead) would gain views when moving through the surrounding fields. The presence of tall landscaping around the farmhouse would limit views of the AD facility. Furthermore, any views would be read with the existing industrial context.
- 9.20 There is currently an extant outline application associated with the Skelton Moor Farm site covering various industrial uses, a hotel and crèche. Given the need for flood risk mitigation by means of a relief channel west/south-west (08/02836/RM) of the site and the approved reserved matter application that covers the south-east portion of the site, the sensitive land-uses (retail, hotel crèche) are unlikely to be located to the southern portion of the site (the closest point to the AD facility). Furthermore, there is a distance of 420m

between the two sites at the closest point (not taking account of the drainage channel).

- 9.21 Mid distance views are more extensive from all orientations around the site and generally the AD facility would be seen as an extension and slight intensification of existing industrial development. The introduction of industrial development would not be uncharacteristic or at odds with the adjoining landscape or effects on views. In most cases, the lower levels of the development would be concealed with the tops of the buildings, tanks and stack visible.
- 9.22 Distant views of the proposals would be gained in the context of a broad swathe of industrial development that includes vertical elements. No instances were identified from the Landscape Visual Impact Assessment where the new building, tank or stack of the AD facility would be visible in a view that does not already contain existing views of industry.
- 9.23 The Trans Pennine Trail follows a route along the River Aire and Aire and Calder Navigation. At its closest, the footpath passes approximately 750m to the south of the AD facility and 240m from area to house the excavated material. The footpath is at low level adjacent to the water course and views out of the canal and river corridor are prevented by topography or vegetation along the route. Some breaks in canal vegetation occur, however other intervening vegetation generally prevents views of the site. Footpath links from the south, through the industrial estate, to the Trans Pennine Trail would be contained by built form and no views of the site would be available.
- 9.24 There are open views of the site from locations along the bridleway, which is also part of cycle route 66, and links Halton Moor with Temple Newsam. Many views from access areas at Temple Newsam would be prevented by vegetation. User of the bridleway link south from Halton would have a relatively short distance close view of the site across the A63.
- 9.25 Within Rothwell Park there are open views of the skyline of the city of Leeds and towards the site from elevated positions. However, the site is visible as part of the existing industrial context and the mature tree belt west of the site is a visible feature and forms a backdrop to the site. Generally views of the site from Middleton Park are prevented by vegetation and the majority of footpaths and bridleways are contained within woodland. However, from an elevated area known as 'The Clearings' an open view is obtained above mature boundary trees of the Leeds skyline. There is a potential view of the site however the site is positioned at a low level and is seen as an element of the industrial and urban mosaic in the distance.
- 9.26 There would be a change in the landscape to those residing at properties on the edge of Halton Moor, Osmonthorpe and edge of Rothwell, public rights of way and open spaces. However, it must be noted that many of these viewpoints incorporate the existing industrial edge of Leeds, which currently contains buildings/structures similar in nature to the proposal, is prominent or features in views towards the proposal site. Generally the proposal would

appear as an extension of or slight intensification of the industrial area in many instances. Furthermore, the proposal would appear considerably smaller than the consented wind turbine if built. Therefore, the introduction of further industrial development of a similar nature, although large scale, would not be uncharacteristic or at odds with the adjoining townscape/landscape. Visual receptors could be considered to be less sensitive to visual change of this scale when viewed within the existing urban/industrial context.

Landscape Proposal

9.27 The landscape proposal for the AD facility seeks to reflect the character of the site and the surrounding landscape by establishing vegetation using native species appropriate to the local area. The proposals include the following features:

- Graded and planted slopes to contain the built development and integrate the landscape with the remaining existing mound.
- Native tree and shrub planting within a 5m strip to provide a soft boundary treatment and screening along the north and east boundary of the site to integrate the buildings and tanks particularly when viewed from the north and east.
- A minimum 5m buffer strip adjacent to the existing woodland block to be planted with native tree and shrub species that would provide a woodland edge and extension of the existing green corridor.
- Reinforcement planting of recent planting on retained section of mound.
- Wildflower grassland on lower slopes surrounding the site.

9.28 The woodland to the western boundary lies within the broad area identified as the Strategic Green Infrastructure Network, which forms a part of the draft Core Strategy. The woodland has been identified as forming an important part of the green infrastructure network in the area as part of emerging work to support the preparation of the Aire Valley Area Action Plan. The applicant has proposed to retain and maintain the existing trees and provide an additional 5m landscaped buffer between the embankment and the development site. This is a benefit of the proposal and is consistent with draft Core Strategy Policy G1, which requires that development within the identified green infrastructure network should ensure that the green infrastructure function of the land is retained and improved, particularly in areas of growth such as the Aire Valley.

9.29 As previously outlined, the excavated material created from providing a level platform for the AD facility would be located to the south of the WWTW. The material would be added to that which already resides there and graded back. The overall maximum height would be approximately 11m. The proposed landscaping mound has been designed to ensure the safe and practical storage of the excess material whilst providing increase habitat biodiversity value at the site. Officers have sought to remove sharp peaks and provide a slopes no steeper than 1:3 to enable the area to be seeded with a wildflower grassland. In addition, through condition, officers will ensure peaks will be softened/bladed to allow the landscaping proposal to be successful and provide a more visual pleasing scheme.

- 9.30 The proposed landscape scheme enhances the existing western tree belt and provides the opportunity to soften the proposed scheme to the northern and eastern boundary. The additional landscaping and wildflower grasslands would mitigate against the loss of existing vegetation. Furthermore, they would enhance the local landscape and provide long term biodiversity benefits.

Cumulative Landscape Impacts

- 9.31 The two proposed Energy from Waste (EfW) plants at Pontefract Lane and Skelton Grange would have an visual influence on the urban area of Leeds. Due to the introduction of tall stacks proposed and large scale buildings a cumulative effect may occur on the adjacent landscape surrounding the developments where the schemes would have an overlapping influence from some locations, particularly from the south east and the M1. Given the urban/industrial context this is not considered to be significant.
- 9.32 These developments are large in scale and would be visually prominent in the landscape/townscape in their own right. During construction and operation, visual receptors would gain views of the AD facility in the context of a more developed location. The proposed developments would not wholly block any of the views of the AD facility from identified receptors. However, the EfW at Pontefract Lane would be closer to residential receptors to the north at Osmondthorpe and EfW Skelton Grange would be seen in front of the AD facility from the edge of the settlement of Rothwell.

Conclusion

- 9.33 In conclusion, the overall context of the site is that of an industrial townscape to the east of Leeds between the A63 and the Aire and Calder Navigation. The townscape is influenced by a variety of land uses including water treatment works, industrial, commercial, open land, disused land and transport corridors. The proposed industrial development of the site would reflect the adjoining treatment works and large scale buildings and reinforce the local industrial townscape character.
- 9.34 The new building, tank and stack are of a similar industrial character to existing neighbouring development and attention would not be drawn to them. The development of the site would not extend the built development of the industrial area any closer to sensitive receptors. In close up views the project would become part of a wider industrial area and, where prominent, the upper sections of the building, tanks and stack would appear above intervening vegetation particularly from the A63 and adjacent bridleway at Thornes Farm Way. The changes that would occur in the Leeds Urban character area as a result of the development of the AD plant can be readily accommodated.
- 9.35 The proposed landscape planting is an integral part of the proposal and would help to soften the area's urban character, assimilate the development and provide important links with the existing mature tree belt. The boundary landscape treatments, including native woodland, trees and shrubs,

grassland and wildflowers would provide a vegetation structure appropriate to the area. In addition, the proposal would provide biodiversity benefits. For these reasons, the proposed development is considered to accord with the aforementioned policies.

Heritage

- 9.36 The closest designated assets are the group of listed buildings at Thwaite Mill; each listed at Grade II. These buildings are located approximately 180m south of the southern part of the proposed development. The setting of the designated assets comprises each other and the river and mill stream on which they are located. The site and the assets would be separated by the weir and tree lined banks of the River Aire. In the main, any likely impact would be limited to the view of the top half of the excavation material that is to be graded and seeded with a wildflower mix. However, due to a break in tree cover, there may be a wider view of the western portion of the excavated material when walking from the car park to the entrance. Given the green context of this view, with an appropriate landscaping scheme in place, this would not introduce a significant visual change. Considering this, there would be no effect on the setting of the listed buildings.
- 9.37 The westernmost part of Temple Newsam Park is located some 950m east of the northern part of the AD facility. Given this area of Temple Newsam Park is a woodland, there is unlikely to be an adverse effect on the setting of the registered park and garden.
- 9.38 In conclusion, the proposal is unlikely to have a significant impact on any of the neighbouring heritage assets. Therefore, the proposal is considered to comply with all the aforementioned policies.

Highway Safety

- 9.39 Access will be taken from the existing Knowsthorpe Road via Knowsthorpe Gate. This existing access point is currently locked and kept closed. When the access is not in use, the gates would remain closed to ensure the security of the wider WWTW. The required forward visibility around the first bend of the private access road is 33m. However, 37m would actually be provided. Pedestrian access would also be taken from Knowsthorpe Road, with a clearly marked and lit route on the edge of the road to ensure safe separation between pedestrians, cyclists and road vehicles on the approach to and from the site.
- 9.40 The proposed layout incorporates 7 parking spaces. The UDP parking guidelines require approximately 25 spaces for the floor space proposed. However, the reception building is of the proposed scale due to the plant and equipment it is expected to accommodate. Given this and that the AD facility would only employ 15 people working on a shift basis, the UDP standard does not seem appropriate in this case. The applicant expects that there would only be a maximum 7 employees on site at any one time. If on occasion the parking capacity was not sufficient, the employees would be

able to use the parking facility on the wider site as the WWTW is owned by the Kelda Group. In addition, the applicant is willing to provide cycle parking and there would be shower and changing facilities within the welfare office.

- 9.41 From Knowsthorpe Gate there is direct access onto the East Leeds Link Road (ELLR) approximately 500 metres to the north. This would provide onward connections to Junction 45 of the M1 and the Leeds Inner Ring Road Stages 6 (A61) and 7 (M621).
- 9.42 The construction period is anticipated to take approximately 1 year with 91 traffic movements expected (182 trips) daily during the peak construction period (but fewer during other months of construction). These trips include staff arrivals and departures as well as material deliveries and other construction related traffic. To ensure that the construction activities have a minimal impact on the local highway network an appropriate condition would be attached to any grant of planning permission.

Cumulative Impact

- 9.43 The cumulative impact of the development proposal and neighbouring sites and the two way trip generation of the anaerobic digestion plant has been compared with both the approved Biffa and Veolia Energy from Waste (EfW) sites to form an overall total of predicted two way movements. The Biffa and Veolia sites were predicted for a similar timescale for the construction and operational periods. The location of the EfW sites is an important factor to consider in this instance. The Biffa EfW would not be using the same route networks for HGV and non-HGV movements as the Veolia EfW site and the proposal. As a consequence the majority of traffic impact on the ELLR from waste schemes is limited to that of the proposal and the Veolia site.
- 9.44 The proposed development is also not anticipated to commence operation until 2016. Therefore for the purpose of the cumulative impact assessment, the construction period for Veolia and the development site has been set at Year 2014 and the operational period at Year 2016.
- 9.45 The design flow of the ELLR (west of Newmarket Approach) is 5,300 during both the AM and PM peak periods. Within the travel assessment for the Veolia EfW, base flows for the road were calculated plus the development and it was found that the peak flow in 2016 would reach 2,001 in the AM peak and 2,091 in the PM peak. Therefore, the ELLR would be operating under capacity, which would not change when factoring in 8 movements during the AM Peak period (08:00-09:00) and 3 within the PM peak period (17:00-18:00) created by the introduction of the Kelda facility. The Kelda site is located only a short distance east of the Newmarket Approach Junction and the flows are considered to be similar on the ELLR at the Knowsthorpe Gate roundabout. Therefore, the road has more than sufficient capacity to accept movements associated with the anaerobic digestion plant.
- 9.46 In conclusion, the proposal is unlikely to introduce significant harm to highway safety as a single development or cumulatively. Considering this

and the above, the proposed development accords with the aforementioned policy.

Ecology and Biodiversity

- 9.47 The existing habitats at the site of the AD facility include grassland, immature tree planting and a small scrub patch. These are considered to be of low biodiversity value. The majority of habitats within the area proposed to house the excavated earth are currently considered to be of low ecological value, comprising mainly of tall ruderal and short-mown grassland.
- 9.48 The woodland to the western boundary, of the main site, is an important ecological feature, which is being retained and maintained by the applicant as a part of the landscape proposals for this development. The creation of a 5m wide buffer with native scrub planting will be implemented between the site and the plantation woodland (designated as a Local Green Corridor) adjoining the western boundary. This will minimise indirect impacts to the off-site woodland during site operation and will provide habitat of biodiversity value that will enhance the Local Green Corridor.
- 9.49 The neutral grassland, particularly along the edge of the adjoining immature plantation woodland, may be used by small numbers of common and widespread bat species for foraging / commuting. For this reason, if planning permission was to be granted, the applicant would be required to submit and have approved a Lighting Design Strategy for bats. All external lighting would be installed in accordance with the approved strategy.
- 9.50 The development site currently houses a landscaped mound. A portion of this would have to be removed to enable the development, which would result in the loss of an area of recent tree planting and semi-improved grassland. The applicant has developed a landscaping scheme to mitigate this loss and would be required to translocate the existing planting elsewhere within development area or wider WWTW.
- 9.51 The material being removed from the site for the AD facility is to be relocated within the WWTW to an area that currently houses other deposits of earth. Once the material is added this area would be re-graded in order to achieve a wildflower meadow. The wildflower meadow would provide habitats of biodiversity value. To ensure this is a permanent ecological asset, conditions would be attached to any grant of approval requiring the area to be adequately designed and maintained.
- 9.52 On balance, the proposal is considered to be an enhancement to local biodiversity at both sites. Therefore, the proposed development would accord with the aforementioned policy.

Air Quality and Public Health

- 9.53 The NPPF outlines (in paragraph 6) that the purpose of the planning system is to assist in achieving sustainable development. As such, planning has an

economic, social and environmental role to play. The environmental role involves ‘...improving biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.’

- 9.54 One of the 12 core land-use planning principles that should underpin decision-taking, noted within paragraph 17 of the NPPF, is ‘conserving and enhancing the natural environment and reducing pollution’. Paragraph 122 outlines that planning decisions should ensure that new development is an appropriate use of the land and the impact of the use, rather than controlling processes or emissions themselves where these are subject to approval under pollution control regimes.
- 9.55 Health is principally an issue regulated by the Environment Agency and the pollution control regime. However, air quality relating to land use and its development is capable of being a material planning consideration. Whether or not air quality is relevant to a planning decision will depend on the proposed development and its location. The planning practice guidance web-based resource, launched by the Department for Communities and Local Government (DCLG) in March 2014, outlines that when deciding whether air quality is relevant to a planning application, considerations could include whether the development would:
- Significantly affect traffic in the immediate vicinity of the proposed development site or further afield.
 - Introduce new point sources of air emissions.
 - Give rise to potentially unacceptable impact (such as dust) during construction for nearby sensitive locations.
 - Expose people to existing sources of air pollutants.
 - Affect biodiversity.

Traffic Impact on Air Quality

- 9.56 A proposal generating or increasing significant traffic congestion; significantly changing traffic volumes, vehicle speed or both; or significantly altering the traffic composition on local roads could impact upon air quality. As discussed previously, the proposal is unlikely to add considerably to traffic during the operational period and would not impact upon the capacity of the ELLR. The proposal would not alter the composition of the road or vehicle speed.

New Source of Air Emission

Operational Emissions from the CHP Stack & Flare

- 9.57 The proposed AD facility involves the bacteriological breakdown of biodegradable materials in the absence of oxygen, producing a methane-rich biogas. This biogas is then burned in a CHP to generate heat and electricity. A high temperature biogas flare is provided for emergencies or shut downs to burn off excess biogas. The key pollutant emissions associated with the CHP and the biogas flare combustion processes are nitrogen oxides (NO_x),

Carbon monoxide (CO), Sulphur dioxide (SO₂), Particulate Matter (PM) and Benzene.

- 9.58 The CHP is expected to run for 90% of the year (approximately 8000 hours), while the biogas high temperature flare is expected to run for no more than 400 hours per annum during shut downs and emergencies. As such, the CHP flare and biogas flare are not expected to run at the same time. Overall, the mass emissions associated with the biogas flare are significantly less than (at least 50% less) those from the CHP. Modelling has been undertaken for the CHP alone but on the conservative assumption that it runs all year round for 8760 hours. No modelling has been undertaken for the biogas flare specifically; however it is considered that its effects are included within the modelling of the CHP, as the additional 760 hours more than compensates for the likely emissions associated the biogas flare.
- 9.59 The effects of operational pollutant emissions from the CHP stack associated with the AD facility have been predicted using best practice approaches and compared with the relevant Environmental Quality Standard (EQS). The assessment has been undertaken with an understanding of the existing conditions (ambient concentrations) compared with the predicted level of emissions that would potentially be released by CHP stack. This is based on a number of worst-case assumptions, including using the worst-case weather conditions.
- 9.60 The predicted maximum contribution of emissions from the proposed stack identifies that the maximum long-term and short-term contribution are below the recommended 1% (for long term impacts) and 10% (for short term impacts), as a percentage, of the EQS for the majority of pollutants. The exception to this is the long term ground-level concentrations of NO₂ and benzene. However, when the predicted emissions are combined with the existing background level they are below the required EQS limit.
- 9.61 The dispersion modeling was undertaken to predict the contributions from the proposed AD facility at local receptors around the Application Site. The predicted emission (process contributions) contributions from the CHP stack are below the relevant EQS. The process contributions plus existing emissions also fall within the EQS. Therefore, it is considered that there would be no significant harm to human health from the proposed development.

Cumulative Impacts

- 9.62 The dispersion modelling was run to predict the contributions from the proposed CHP and the two consented ERFs at local receptors around the application site. The annual mean (as a percentage) of the predicted contributions plus the existing background would be nitrogen dioxides (NO₂) 91.49, particular matter 52.75% and 64.39%, sulphur dioxide (SO₂) 6.84% (24 hours), carbon monoxide (CO) 22.30%, and Benzene 45.32%. All predicted concentrations are considered to be sufficiently below the relevant EQS and so not harmful to human health.

9.63 The maximum predicted ground-level concentrations associated with the CHP stack and the consented Veolia and Biffa ERFs have been modelled. Where assumptions need to be made for model input data, these are normally conservative. The predicted contributions plus the existing background level are below the relevant EQS. As a percentage of the EQS, the annual mean of, nitrogen dioxides (NO₂), Benzene, particulate matter (10 and 2.5), carbon monoxide (CO) and sulphur dioxide (SO₂) would be 94.1%, 80.6%, 52.9%, 64.6%, 23.9% and 11.5% respectively. This shows that, assuming the Veolia and Biffa ERFs were operational, the proposed development would not result in the EQS being exceeded.

Odour

9.64 The AD process itself is sealed with no releases during digestion. However, there is potential for odour from some of the other operations associated with the AD process. In order to reduce the potential for odour emissions associated with the storage of the feedstock, a biofilter will be employed to clean the collected air stream from the operations associated with AD process. The cleaned air stream would finally be discharged through a dedicated odour control stack. Odour emissions from the odour control stack have also been predicted at sensitive receptors and odour concentrations are predicted to be below the benchmark for unacceptable odour levels. Apart from this point-source release, there is also some potential for fugitive odour emissions associated with the AD process, which would be controlled through the mitigation control incorporated into the design of the facility and good management practices.

Dust

9.65 The proposal involves the removal of an existing landscaped earth mound on the development site. This would result in the generation of approximately 58,000 cubic metres of spoil. Most of this (53,000 cubic metres) would be redistributed to the south of the development while the remaining 5,000 would be used on site. Handling of spoil is considered to be one of the major sources of dust during construction, however with the implementation of best practice it should not result in a significant dust risk. In addition to the handling of spoil, it is expected that the movement of plant vehicles both on and around the development site; earthworks; wind-blown particulate material from stockpiles; and handling of loose construction materials has the potential to create dust.

9.66 The level and distribution of construction dust emissions will vary according to factors such as the type of dust, duration and location of dust-generating activity, weather conditions and the effectiveness of suppression methods. The main effect of any dust emissions, if not mitigated, could be annoyance due to soiling of surfaces, particularly windows, cars and laundry. The only receptor within 20m of the site boundary is the WWTW. Within 350m there are approximately 60 receptors that are classified as industrial or offices with few of those being considered sensitive. The risk impact is considered to be low and with mitigation measures in place the significance of the effect would

be negligible. If Members were minded to approve the proposal, conditions could be put in place to ensure the mitigation measures were utilised.

Exposing people to existing sources of air pollution

9.67 This criterion concerns developments attracting people to areas with poor air quality. Leeds currently has six air quality management areas (AQMAs) due to high levels of NO₂ attributed to road vehicle emissions. The development site is not located within any of these identified areas nor would it attract large volumes of people for a significant amount of time like say a housing development would. Furthermore, given the above discussion concerning emissions from the proposal, the development is unlikely to notably add to any existing air quality problem.

Impact upon local biodiversity

9.68 The proposed development is not located within or in close proximity to an area with a local or European designation for wildlife. As discussed previously, the proposal meets EQS so is unlikely to have an impact upon local biodiversity.

Environmental Permitting Regulations

9.69 Under the Environmental Permitting Regulations, the applicants are required to apply to the Environment Agency (EA) for an Environmental Permit. As part of this process the EA are responsible for determining acceptable emission limits. The EA will not issue such a Permit if they consider that there would be any harmful effects on human health or the environment. The Permit would set out strict operating requirements which must be complied with to protect the environment and public health. The Permit application would have to demonstrate that the proposed plant would use Best Available Techniques (BAT) in order to control emissions to air, land and water. The EA guidance note for incineration activities identifies the detailed requirements to be met and the EA is under no obligation to issue a Permit, unless it is fully satisfied that the installation would be operated appropriately.

9.70 When a Permit application is received by the Environment Agency, organisations such as the Public Health England (PHE), the Local Authority and the Food Standards Agency are consulted. PHE assesses the potential public health impact of an installation and makes recommendations based on a critical review of the information provided for the Permit application. PHE would request further information at the environmental permitting stage if they believed that this were necessary to be able to fully assess the likely public health impacts.

Conclusion

9.71 National policy is very clear that planning authorities should not duplicate environmental controls administered by other agencies. Overall in terms of the assessed impacts on air quality and health, the proposal is considered to be in accordance with the aforementioned policies.

Noise

- 9.72 With regards to noise, the proposal comprises a Combined Heat and Power (CHP) unit, primary and secondary digesters, a digestate storage tank (the digestion process is inherently quiet) and an industrial building with an internal reverberant noise level of 80 dB. Noise generating activities that take place within the building include the de-packaging and separation of incoming waste. The facility would operate continuously 24-hours a day and, for the purposes of the noise assessment, all plant has been assumed to operate with a 100% on-time basis. However, in practice, it maybe that there is less activity on site at night-time and resulting noise levels being lower during these periods.
- 9.73 Noise levels from the site have been predicted and assessed in accordance with the methodology in BS 4142. For the purposes of the daytime assessment, the average LA_{90,16hr} value measured over the full seven days surveyed has been used (49 dB) as the representative background level. The results of the assessment show that the daytime rating levels are between -28 dB and -25 dB below background noise levels at the noise sensitive receptors assessed. According to BS 4142: "If the rating level is more than 10 dB below the measured background level then this is a positive indication that complaints are unlikely".
- 9.74 The lowest LA_{90,8hr} value measured over the eight nights surveyed has been used (44 dB). This was to ensure a robust assessment, valid for a wide range of ambient noise conditions. The results of the assessment show that the night-time rating levels are between -24 dB and -21 dB below background noise levels at the NSRs assessed. According to BS 4142: "If the rating level is more than 10 dB below the measured background level then this is a positive indication that complaints are unlikely".
- 9.75 In conclusion, the proposed noise assessment has indicated that the noise effects associated with the operation of the new AD facility would be acceptable and this has not been disputed by any of the consultee responses. Considering these factors, the proposal is unlikely to introduce harm to amenity. Therefore, the proposal accords with the aforementioned policy.

10.0 CONCLUSION

- 10.1 The sustainability benefits of the proposal are two fold and attract significant weight in the balancing of considerations. Firstly, the proposal would provide a facility in Leeds that would move the disposal of organic waste up the waste hierarchy by diverting it from landfill and working towards achieving self-sufficiency. Secondly, the AD process would produce biogas gas that would be piped to the CHP engine which would combust the gas to generate approximately 2.4MW of low carbon electricity.
- 10.2 The proposal has been designed so that it would complement the existing industrial/urban context without appearing overbearing. This has been achieved in part by a complementary landscape scheme to assist with the

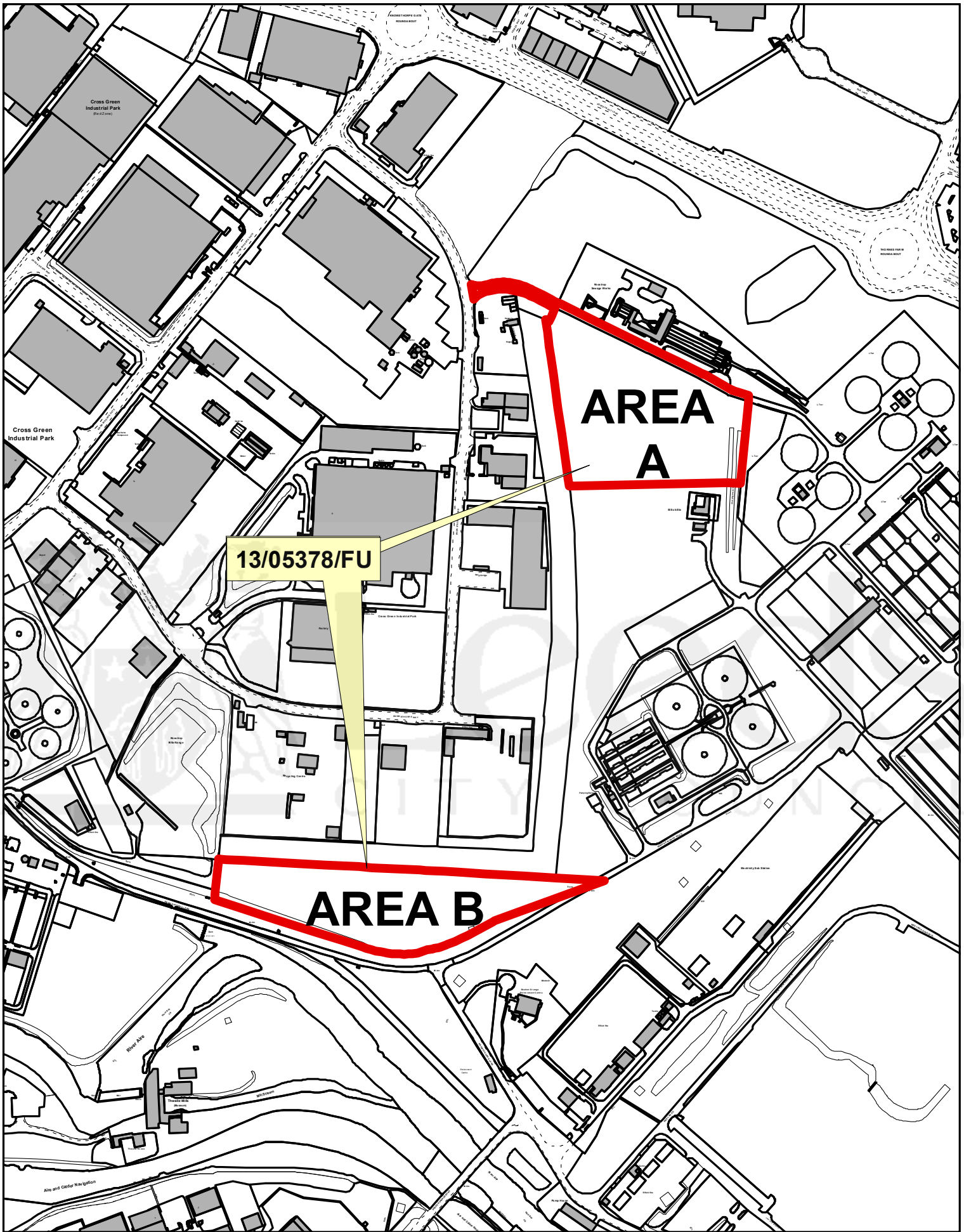
assimilation of the proposal. The additional soft landscaping would also have biodiversity benefits. The proposal is unlikely to introduce harm to amenity, health or highway safety that could not be mitigated through planning conditions. Considering these factors, the proposed development is, on balance, considered to fully accord with the development plan and there are no material considerations that indicate otherwise. Therefore, a recommendation of approval is made.

Background Papers:

Certificate of ownership: signed by applicant.

13/05378/FU: Planning application file

PREAPP/12/01142: Pre-application file



CITY PLANS PANEL

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SCALE : 1/5000

