Wiltshire Council

AGENDA

Meeting: **Strategic Planning Committee**

Place: **Council Chamber - County Hall, Bythesea Road, Trowbridge, BA14 8JN**
The meeting may also be viewed on YouTube at this link.
Members of the Public are encouraged to view the meeting online, as there will be limited capacity in the venue due to Covid-19 restrictions. Please register in advance if you would like to request speaking or attending. Those attending will need to follow all Covid-19 arrangements including as detailed below.

Date: **Tuesday 22 June 2021**

Time: **10.30 am**

Please direct any enquiries on this Agenda to Kieran Elliott, of Democratic Services, County Hall, Bythesea Road, Trowbridge, direct line 01225 718504 or email kieran.elliott@wiltshire.gov.uk

Press enquiries to Communications on direct lines (01225) 713114/713115.

This Agenda and all the documents referred to within it are available on the Council's website at www.wiltshire.gov.uk

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Membership:

Cllr Howard Greenman (Chairman)
Cllr Tony Trotman (Vice-Chairman)
Cllr Ernie Clark
Cllr Adrian Foster
Cllr Sarah Gibson
Cllr Carole King
Cllr Christopher Newbury
Cllr Pip Ridout
Cllr James Sheppard
Cllr Elizabeth Threlfall
Cllr Robert Yuill

Substitutes:

Cllr Helen Belcher
Cllr Clare Cape
Cllr Ruth Hopkinson
Cllr George Jeans
Cllr Dr Nick Murry
Cllr Andrew Oliver
Cllr Stewart Palmen
Cllr Nic Puntis
Cllr Bridget Wayman
Cllr Graham Wright

Covid-19 safety precautions for public attendees

To ensure COVID-19 public health guidance is adhered to, a capacity limit for public attendance at this meetingwill be in place.Please contact the officer named on this agenda no later than 5pm onFriday 18 June 2021if you wish to attend this meeting.To ensuresafety at the meeting, all present at the meeting are expected to adhere to the following public healtharrangements to ensure the safety of themselves and others:

- Do not attend if presenting symptoms of, orhave recently tested positivefor,COVID-19
- Wear a facemask at all times (unless due to medical exemption)
- Maintain social distancing
- Follow any one-way systems, signage and instruction

This meeting will also be livestreamed to the internet.

Recording and Broadcasting Information

Wiltshire Council may record this meeting for live and/or subsequent broadcast. At the start of the meeting, the Chairman will confirm if all or part of the meeting is being recorded. The images and sound recordings may also be used for training purposes within the Council.

By submitting a statement or question for an online meeting you are consenting that you will be recorded presenting this, or this may be presented by an officer during the meeting, and will be available on the public record. The meeting may also be recorded by the press or members of the public.

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County Hall, Trowbridge
Bourne Hill, Salisbury
Monkton Park, Chippenham

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AGENDA

Part I

Items to be considered when the meeting is open to the public

1 **Apologies**

To receive any apologies or substitutions for the meeting.

2 **Minutes of the Previous Meeting** *(Pages 5 - 8)*

To approve and sign as a correct record the minutes of the meeting held on 21 April 2021.

3 **Declarations of Interest**

To receive any declarations of disclosable interests or dispensations granted by the Standards Committee.

4 **Chairman's Announcements**

To receive any announcements through the Chair.

5 **Public Participation**

The Council welcomes contributions from members of the public. During the ongoing Covid-19 situation the Council is operating revised procedures and the public are able to participate in meetings online after registering with the officer named on this agenda, and in accordance with the deadlines below.

View the meeting via this link

Statements
Members of the public who wish to make a statement in relation to an item on this agenda contact the officer named on this agenda no later than 5pm on 18 June 2021.

Statements should:
State whom the statement is from (including if representing another person or organisation);
State clearly whether the statement is in objection to or support of the application;
Be readable aloud in approximately three minutes (for members of the public and statutory consultees) and in four minutes (for parish council representatives – 1 per parish council).

Questions
To receive any questions from members of the public or members of the Council received in accordance with the constitution which excludes, in particular, questions on non-determined planning applications.

Those wishing to ask questions are required to give notice of any such questions electronically to the officer named on the front of this agenda no later than 5pm on 15 June 2021 in order to be guaranteed of a written response.

In order to receive a verbal response questions must be submitted no later than 5pm on 17 May 2021.

Please contact the officer named on the front of this agenda for further advice. Questions may be asked without notice if the Chairman decides that the matter is urgent. Details of any questions received will be circulated to members prior to the meeting and made available at the meeting and on the Council's website. Questions and answers will normally be taken as read at the meeting.

6 **20/06775/WCM: Northacre Energy from Waste Facility, Stephenson Road, Northacre Industrial Estate, Westbury, BA13 4WD** *(Pages 9 - 218)*

Amended energy from waste facility to that consented under planning permission 18/09473/WCM.

7 **PL/2021/04232: Fairford Road, Marston Meysey, SN6 6LL** *(Pages 219 - 224)*

The extraction of minerals, provision of associated infrastructure including access and processing facilities, associated ancillary buildings, structures and operations, with site restoration using imported materials to agriculture and enhanced ecological interest and biodiversity.

8 **Planning Updates** *(Pages 225 - 226)*

To receive details of planning updates as appropriate.

9 **Urgent Items**

Any other items of business, which in the opinion of the Chairman, should be taken as a matter of urgency.

Part II

Item during whose consideration it is recommended that the public should be excluded because of the likelihood that exempt information would be disclosed

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Strategic Planning Committee

MINUTES OF THE STRATEGIC PLANNING COMMITTEE MEETING HELD ON 21 APRIL 2021 AT ONLINE.

Present:

Cllr Fleur de Rhé-Philipe MBE (Chairman), Cllr Andrew Bryant, Cllr Ernie Clark, Cllr Andrew Davis, Cllr Stewart Dobson, Cllr Ross Henning, Cllr Carole King, Cllr Tony Trotman and Cllr Fred Westmoreland

Also Present:

Cllr Allison Bucknell

8 **Apologies**

No apologies were received for the meeting.

9 **Minutes of the Previous Meeting**

The minutes of the meeting held on 27 January 2021 were presented for consideration, and it was,

Resolved:

To approve and sign the minutes as a true and correct record.

10 **Declarations of Interest**

There were no declarations.

11 **Chairman's Announcements**

As the last meeting before the local elections on 6 May 2021, the Chairman, who would not be standing, thanked officers and members for their contributions to the Committee in the past four years, particularly those who would not be returning.

12 **Public Participation**

The procedure for public participation was noted.

13 **20/10627/FUL: The Paddock, Hook, Lydiard Tregoze, Wiltshire, SN4 8EA**

Public Participation
Robin Snell spoke in objection to the application.
Dr Angus Murdoch, Agent, spoke in support of the application.
Rose Love, Clerk, on behalf of Lydiard Tregoze Parish Council spoke in objection to the application.

The Head of Development Management, Mike Wilmott, and Senior Planning Officer, Eleanor Slack, presented a report which recommended permission be granted for change of use of land to a gypsy and traveller residential caravan site consisting of 4 pitches, each containing 1 mobile home, 1 touring caravan, 1 semi-detached utility building, car parking, access and children's play area.

The background to the application was detailed, including that an application for the site was refused by the Committee on 11 September 2019, which had been appealed, but that as a result of delays arising from Covid-19 the appeal had not yet been determined. A new application had been submitted in part as a result of changes to the evidence base through a Gypsy and Traveller Accommodation Assessment (GTAA) as part of development of a Gypsy and Traveller Development Plan Document, which identified a need for 132 new pitches across the council area between 2019-2036 for Gypsys and Travellers meeting the government definition, and that the Hook site had a need for 4 adults and 2 teenagers to be accommodate.

Key issues for the application included the principle of development, impact on the character and amenity of the area, highways and drainage. Officers and consultees had confirmed there were no objections in relation to highways, drainage, landscaping or other matters, should the proposed conditions be approved. A late representation raising issues of drainage was raised.

Members then had the opportunity to ask technical questions of the officers. Details were sought on the GTAA, landscaping, drainage strategies and waste bins. It was confirmed that the evidence base generated through the GTAA was public information and a material consideration, though a new policy document had not yet been approved.

Members of the public then had the opportunity to present their views, as detailed above.

A statement on behalf of the local Unitary Member, Councillor Mollie Groom, in objection to the application, was then read by Councillor Allison Bucknell.

The Committee then debated the application. The objections of residents and the Parish Council were noted, including to the principle of the development and impact on neighbouring amenity. It was raised that the reasoning for the refusal in September 2019 continued to apply, notwithstanding the additional evidence base. Matters of enforcement of conditions were also raised.

At the conclusion of debate, on the motion of Councillor Tony Trotman, seconded by Councillor Andrew Bryant, and following confirmation by all Members present that they had seen and heard all relevant materials, it was,

Resolved

To REFUSE the application for the following reasons:

Proposals for new gypsy and traveller pitches are assessed against the criteria set out for such sites in policy CP47 of the Wiltshire Core Strategy. In this case, the proposal does not satisfy the following criteria in CP47:

vi) The proposed development of the site for the four pitches would have an unacceptable impact on the character and appearance of the landscape, harming the appearance of the countryside by the introduction of this urbanising development extending into the rural landscape. The development would also have an unacceptable impact on the amenity of neighbouring properties, due to the increased level of disturbance through the use of the access and the proximity of the development to nearby residential properties.

viii) The development of the site for gypsy and traveller pitches is inappropriate in this location to the character of its surroundings, where the village is characterised by traditionally built permanent housing.

For the reasons set out in relation to vi) above, the development is also considered to conflict with Wiltshire Core Strategy policy CP57 (vii), due to the adverse impact on the amenities of neighbouring properties.

14 **Urgent Items**

There were no urgent items.

(Duration of meeting: 10.30 - 11.35 am)

The Officer who has produced these minutes is Kieran Elliott of Democratic Services, direct line 01225 718504, e-mail kieran.elliott@wiltshire.gov.uk

Press enquiries to Communications, direct line (01225) 713114/713115

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REPORT FOR STRATEGIC PLANNING COMMITTEE

Date of Meeting	22 June 2021
Application Number	20/06775/WCM
Site Address	Northacre Energy from Waste Facility, Stephenson Road, Northacre Industrial Estate, Westbury, BA13 4WD
Proposal	Amended energy from waste facility to that consented under planning permission 18/09473/WCM
Applicant	Northacre Renewable Energy Ltd
Town/Parish Council	WESTBURY
Electoral Division	WESTBURY WEST – Cllr Matthew Dean
Grid Ref	385757 151868
Type of application	Full Planning
Case Officer	Andrew Guest

Reason for the application being considered by Committee

The application is before the Committee because it involves matters of strategic relevance and because the application has generated significant public interest.

Additionally, the former Local Division Member, Russell Hawker, 'called-in' the application for the following stated reason:

Very seriously contentious. This needs to go to the Strategic Planning Committee whether the officer recommendation is for approval or refusal so that a clearly transparent public debate occurs.

1. Purpose of Report

The report assesses the merits of the proposal against the policies of the Development Plan and other material considerations.

The Ministry of Housing, Communities and Local Government (MHCLG) Planning Casework Unit (PCU) has received a third-party request for the Secretary of State to 'call in' the planning application for his determination. The Secretary of State exercises his powers of call-in only very rarely, but frequently receives requests to do so, and only considers such requests where the Council has resolved to approve the application. (Members may recall that the previous application was considered by him following the Council's decision to approve, but he declined to call it in). The recommendation reflects this.

The recommendation is, subject to the Secretary of State determining that he does not want to call in the application for his determination, to grant planning permission subject to conditions.

2. Report Summary

This is a full planning application to construct a conventional, single line, moving grate combustion plant for the 'recovery' of energy from residual waste (Energy from Waste (EfW)). Moving grate combustion is a thermal process to break down waste into a fraction of its original size. The plant generates baseload renewable energy (i.e. steam, which can then be used for other purposes such as electricity generation and heating) and uses a flue gas treatment system to reduce the resultant flue gas emission concentrations to below environmental standards.

The residual waste would be non-hazardous waste primarily from commercial and industrial sources, but including some municipal waste. Residual waste is the waste which remains after re-use and recycling/composting operations have taken place. Such waste would otherwise normally be landfilled or exported by heavy goods vehicle (HGV) (including to mainland Europe) as Solid Recovered Fuel (SRF).

In addition to the residual waste, the facility would also receive SRF and some residual waste direct from the adjacent Northacre Resource Recovery Centre (RRC) (referred to as the Mechanical Biological Treatment plant (MBT) plant in this report) via a new conveyor.

The facility would generate 28.6 Megawatts of electricity from c. 243,000 tonnes of waste pa. After subtracting the power used to run the facility itself, it would have the ability to export 25.6 Megawatts of electricity to the local grid, which is enough to meet the annual needs of approximately 54,000 homes. The facility would also be capable of exporting heat, in the form of steam or hot water, although this does not form part of the proposal at this time.

The proposal is 'EIA development' and so the application is accompanied by an Environmental Statement. All necessary information has been provided in the Environmental Statement which has allowed environmental effects to be fully and properly assessed. The 'Non-Technical Summary of the Environmental Statement' (August 2020) is attached at Annex 1 to this report.

Key points -

- Development Plan – The Waste Site Allocations Local Plan 2013 allocates the Northacre Industrial Estate (in which the application site lies) and some adjoining greenfield land as an area suitable for strategic scale "*materials recovery facility/waste transfer station, local recycling and waste treatment type uses*".

  The Wiltshire & Swindon Waste Core Strategy 2009 defines strategic waste management facilities as large and/or more specialist facilities that operate in a wider strategic manner by virtue of spatial scale, high tonnage of waste managed, specialist nature of the waste managed and/or a wider catchment served. They include Energy from Waste (EfW) / thermal treatment.

  It follows that the proposal – for a strategic scale EfW facility – on this site, which is allocated for this purpose, complies with the waste Development Plan Documents (DPDs) as a matter of principle. Notwithstanding the age of these DPDs, their policies remain in line with more recent national planning policy and guidance.

- 2015 and 2019 planning permissions – EfW 'recovery' schemes in the form of Advanced Thermal Treatment (ATT) facilities using gasification were approved at the site in 2015 and 2019 under references 14/12003/WCM and 18/09473/WCM. The fact that the 2019 permission remains extant is a material consideration in this case, this because it is a

lawful fallback position. The weight it should be given as a material consideration is discussed in greater detail later in the report.

In terms of the Waste Hierarchy, thermal treatment of waste, whether by moving grate combustion or gasification, is an EfW process falling within the same 'Recovery' category. Under environmental legislation, any EfW development is required to use 'Best Available Technique' (BAT). BAT is the best available technique for preventing and minimising emissions and impacts on the environment. Techniques include both the technology used and the way installations are designed, built, maintained, operated and decommissioned. As all recovery waste management options are subject to BAT whether they be recycling, mechanical biological treatment, advance thermal treatment, conventional thermal treatment, or others, there is no 'old technology' either available or permitted to be used.

- Existing Mechanical Biological Treatment (MBT) plant and waste management in general As referred to above, the MBT plant on land adjoining the application site produces from municipal household waste solid recovered fuel (SRF) which is presently exported by road to mainland Europe for use in established energy from waste (EfW) facilities there. The current planning application, if approved, would remove the need for export of all the SRF; some of the SRF (c. 52,000 tpa) would instead be used in the proposed EfW facility, moving from one facility to the other by conveyor. There are both environmental and economic benefits arising from this.

  More generally the proposal would also change the way in which commercial and industrial wastes are managed within Wiltshire by reducing the need for these to be transported, mainly by road, from the county to other parts of the UK, and often to landfill; instead Wiltshire's wastes, and to a certain extent waste from the wider sub-regional area, would be managed in Wiltshire. Again, there are environmental and economic benefits arising from managing the wastes in this way.

- Environmental Permitting – National Planning Policy for Waste advises that when determining waste planning applications, waste planning authorities should –

  "…. *concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced*".

  The Environment Agency has a statutory role to protect the environment and human health from all processes and activities it regulates. The proposal requires an Environmental Permit (EP), issued by the Environment Agency, before it can operate. An application for an EP has been made. The permitting process is subject to public consultation. It also includes consultations with the Council's Environmental Protection Service, the Health & Safety Executive, Public Health England and the Fire & Rescue Service.

  Before an EP is issued the Environment Agency must be satisfied that not only the environment and human health is protected but also that the operator is 'fit and competent' to run the facility.

  The EP process of determination assesses odour, noise and vibration, accidents, fugitive emissions to air and water, releases to air, discharges to ground or groundwater, global warming potential and generation of waste.

EPs set operational conditions, technical requirements, continuous monitoring and reporting requirements as well as emission limit values to meet the requirements of the Industrial Emissions Directive and other relevant legislation.

The Environment Agency carries out regular unannounced inspection visits to ensure that facilities are operating in accordance with the permit conditions and scrutinises all data associated with permitted facilities. The Environment Agency has the power to suspend any Permits it considers are not being fully complied with or if creating an unacceptable risk.

The Environment Agency has not raised any 'show-stopping' concerns over issuing a permit for this proposed development. The Environment Agency raises no objections to this planning application.

Notwithstanding the Environmental Permitting regime, the planning application and its associated Environmental Statement provide evidence to demonstrate that the effects of noise, emissions, odours, etc. would be negligible / imperceptible in any event.

The application site lies within the Westbury Civil Parish, with Dilton Marsh CP approximately 300m to the west.

Westbury Town Council objects to the application; Adjoining Dilton Marsh Parish Council objects to the application. Other local councils – Bradford-on-Avon TC, Bratton PC, Chapmanslade PC, Corsham TC, Coulston PC, Edington PC, Frome TC, Heywood PC, Marlborough TC, Melksham TC, North Bradley PC, Steeple Ashton PC, Trowbridge TC, Upton Scudamore PC, Warminster TC and West Ashton PC – object.

The planning application has been publicised by local advertisement, site notice and letters to neighbours. This has generated 1,972 representations (at 22/02/2021). Of these 1,966 are objections (including from Andrew Murrison MD MP, CPRE West Wiltshire and the Green Party (Chippenham, Devizes & North Wiltshire and South West Wiltshire)), and 6 are supports.

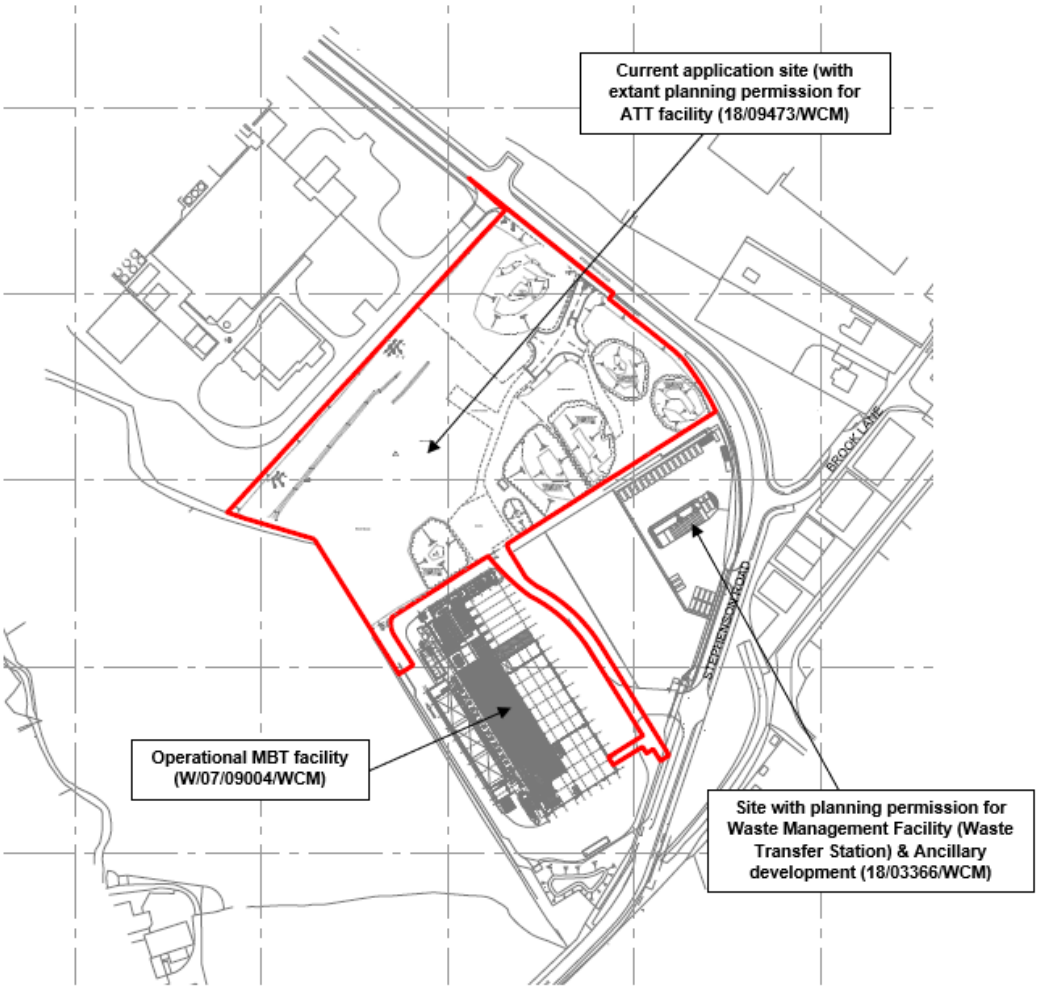
The recommendation is, subject to the Secretary of State determining that he does not want to call in the application for his determination, to grant planning permission subject to conditions.

3. Site Description

The application site is located on the north-west side of Westbury 'Market Town', within the Northacre Industrial Estate (named variously as Northacre Industrial Estate, Northacre Trading Estate, Northacre Industrial Park, etc.) which itself is part of a larger industrial area including the West Wilts Trading Estate (to the north) and the Brook Lane Trading Estate (to the south-east). For planning purposes these areas are designated as a Principal Employment Area and/or an Employment Allocation, and the Northacre Industrial Estate is also an allocated Strategic Scale Waste Site. Beyond the Brook Lane Trading Estate is the mainline railway.

The application site itself forms part of a larger land parcel. Within this parcel, and to the immediate south of the application site, is the Northacre RRC, currently supporting the MBT facility and an un-developed 'plot'. The un-developed plot has two planning permissions – firstly, for a vehicle depot and household recycling centre (HRC) (it is now not intended to implement the HRC); and secondly, for a 'waste transfer station' (WTS), enlarged depot and welfare, office and workshop building (18/03366/WCM). The land proposed for development

in the current planning application is presently open/un-developed (that is, a vacant plot within the industrial estate).



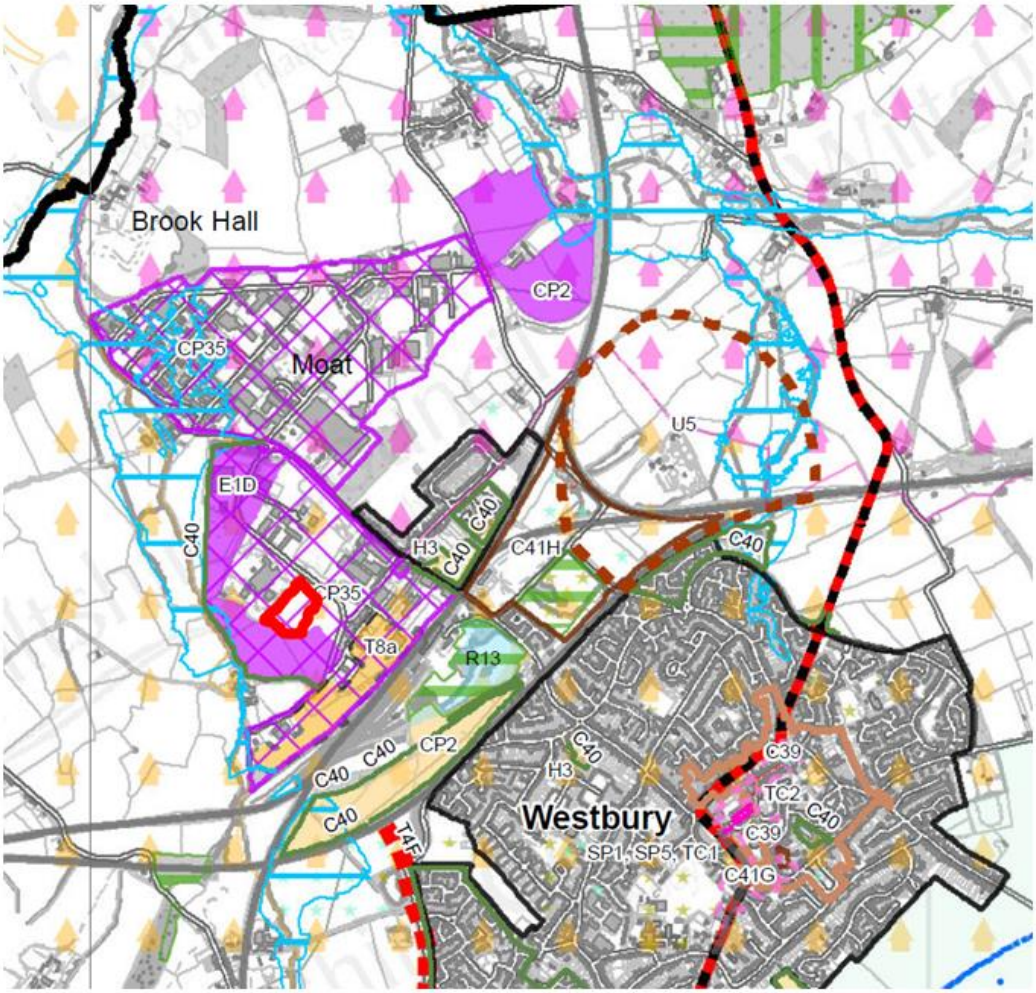
Red-edged Site Plan

The site has frontage to the south-west side of Stephenson Road which is a principal traffic route within the Northacre Industrial Estate.

To the immediate north of the application site is a large milk processing factory (Arla Dairies). To the south and east of the site and on the opposite side of Stephenson Road, are various other industrial/business units and uses and a sewage works, and a few remaining vacant plots awaiting new industrial/business uses, and two residential properties – Brookfield and Crosslands – fronting Brook Lane. To the west is open land, in part within the defined Principal Employment Area, Employment Allocation and waste site allocation. Beyond this open land, c. 300m from the site, are two further residential properties – Brook Farm and Orchard House.

As set out above, for planning purposes the site and its close surroundings are designated as a Principal Employment Area and/or an Employment Allocation in the Wiltshire Core Strategy 2015. In addition, the Northacre Industrial Estate and the Employment Allocation is an allocated Strategic Scale Waste Site in the Wiltshire & Swindon Waste Site Allocations Local Plan 2013. To the west of the site – beyond Brook Farm and Orchard House – is open

countryside and a Scheduled Monument ("medieval settlement and associated field systems").



Extract from Wiltshire Core Strategy Policies Map

[Red line – application site; Purple shading (E1D) – Employment Allocation; Purple diamond hatching (CP35) – Principal Employment Areas; Orange shading (T8a) – Rail Freight Facility; Red/Black line – Strategic Lorry Route]

4. Relevant Planning History

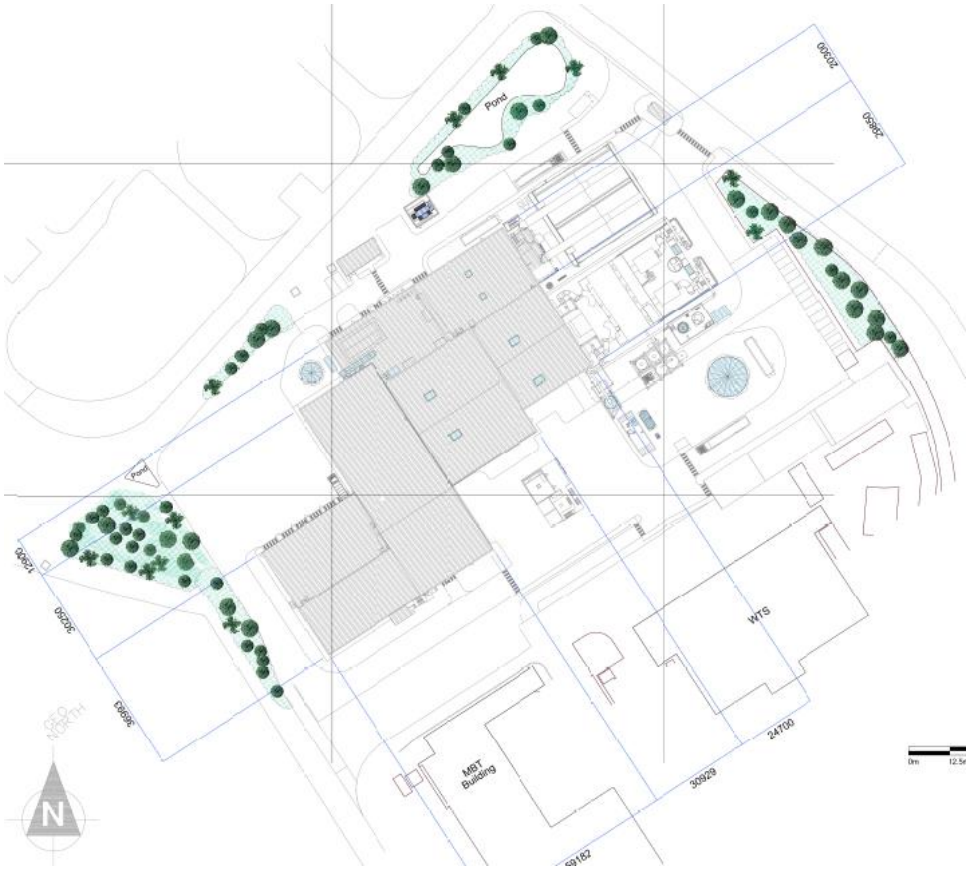
Relevant planning decisions relating to the application site –

14/12003/WCM – *Advanced thermal treatment facility* – approved 23/09/15

18/03816/WCM – *Revision of the layout and design of Advanced Thermal Treatment Facility permitted under consent 14/12003/WCM* – refused 18/07/18; appeal withdrawn

18/09473/WCM – *Revision of the layout and design of Advanced Thermal Treatment Facility permitted under consent 14/12003/WCM* – approved 17/06/19

Prior to the issue of the decision notice for 18/09473/WCM the application was referred to the Secretary of State at his request for his consideration as to whether or not to call-in the application for his own determination. The outcome of this referral (after a lengthy delay) was that the application was not called-in.



18/09473/WCM – approved site layout

Other relevant planning permissions ……

W/07/09004/WCM – *Resource recovery facility including mechanical biological treatment, a household recycling centre, vehicle parking and all necessary ancillary development* – approved 31/03/09

This permission relates to the land to the south of the application site (see plan above, titled 'Red-Edged Site Plan).

The mechanical biological treatment (MBT) element of this planning permission - subsequently amended by permission no. W/12/00656/WCM - commenced operation in 2013. An HGV depot forming part of the approved ancillary development is intended to be fully implemented soon.

The MBT plant was originally permitted to process 60,000 tonnes pa of Wiltshire's household waste, used to create solid recovered fuel for use in renewable energy plants. In 2016 permission was given to increase the material processed to 90,000 tonnes pa (16/08074/WCM). The household waste is brought directly to the plant in refuse collection vehicles, with some material from further afield imported in bulk from waste transfer stations.

Presently the solid recovered fuel is exported by road to end users in Germany and Holland; residue is transported to landfill. The planning application now being considered would use some of the solid recovered fuel and residual waste in its thermal process instead.

The household recycling centre element of W/07/09004/WCM will not be implemented. Instead this area of the site has standalone planning permission for a Waste Management Facility (that is, a waste transfer station for municipal waste for recycling) and welfare, office and workshop building with ancillary development (18/03366/WCM).

18/03366/WCM – *Waste management facility and welfare, office and workshop building with ancillary development* – approved 18 July 2018

18/09550/FUL – *Landscaping and screening bund* – approved 24/01/19

This is a standalone planning permission for a graduated landscaped bund (up to c.13m above original ground levels) on land immediately to the east of the current application site, to soften views of the EfW facility in views from the west.

19/02481/FUL - *Installation of an underground grid connection* – approved 01/07/19

This is a standalone planning permission for the underground cable for the export of the electricity generated by the proposed development to the grid, at Frome. A related planning permission for the Somerset section of the cable has been given by Mendip DC.

5. Proposal

The proposal is for a conventional, single line, moving grate combustion plant for the recovery of energy from residual waste.

Moving grate combustion is a thermal process to break down waste into a fraction of its original size. The plant generates baseload renewable energy (e.g. steam which can then be used to generate electricity) and uses a flue gas treatment system to reduce the resultant flue gas emission concentrations to below the environmental requirements limit.

The Environmental Statement accompanying the planning application explains the proposal as follows:

The Northacre Facility, as now proposed comprises a conventional, single line, moving grate combustion plant for the recovery of energy from residual waste and enabling recovery of metals and the residues from the process by offsite recycling. The residual waste input would be non-hazardous waste primarily from commercial and industrial sources and may include municipal waste. Residual waste ….. is that waste which remains after re-use and recycling / composting operations have taken place.

The residual waste for this facility will include Solid Recovered Fuel (SRF) and the "fines and heavies" from the adjacent Mechanical Biological Treatment facility (MBT).

The Proposed Development would generate electricity by way of a steam turbine which would be driven through the controlled combustion of residual waste. ….. the gross power generating capacity of the Northacre Facility would be 28.6 Megawatts (MW). After subtracting the power used to run the facility itself, it would have the ability to export approximately 25.6 MW of electricity to the local electricity grid, a significant proportion of which would be classed as renewable. This is sufficient to meet the average annual domestic electricity needs of approximately 54,000 homes. It would also be capable of

exporting heat, in the form of steam or hot water, to local heat users. It would provide a potential source of heat in a location where further employment growth is planned and represents a significant capital investment in the local area.

The proposal is based around a single main building which would contain the following elements:

- *Reception Hall;*
- *Bunker;*
- *Boiler Hall;*
- *Turbine Hall;*
- *Incinerator Bottom Ash (IBA) storage; and*
- *Offices, Workshop, Stores and Staff Welfare Facilities.*

The Air-Cooled Condensers (ACCs) would form a separate standalone structure situated adjacent to the main building. The Flue Gas Treatment (FGT) facility is located outside the main building as a separate structure also. The stack is associated with the FGT facility and extends to a height of circa 75m.

The Proposed Development is located adjacent to the MBT plant which will supply SRF to the Facility, therefore also incorporated within these revised proposals is a conveyor link between the two buildings. This supplements the vehicle access between the two sites which will be used to transfer other residual materials.

The Proposed Development would also include the following ancillary / infrastructure:

- *Vehicle weighbridges and weighbridge Gatehouse;*
- *Transformer and Substation buildings*
- *A separate DNO substation;*
- *Fire water tank and associated pump house;*
- *Tanks / silos (containing fuel oil, ammonia hydroxide, FGT residues);*
- *Internal circulation roadways / ramps and manoeuvring areas;*
- *Employee and visitor parking / bicycle parking including EV charging;*
- *Fencing and gating;*
- *Service connections;*
- *Surface water drainage;*
- *Lighting and CCTV; and*
- *Areas of hard and soft landscaping.*

In association with granting the 2019 permission, a further permission was approved by WC (ref 18/09550/FUL) which was for a screening bund on land adjacent to the site that would be created using material which needs to be removed from the site as part of the development works. That screening bund will be constructed in association with this revised proposal for the Northacre Facility.

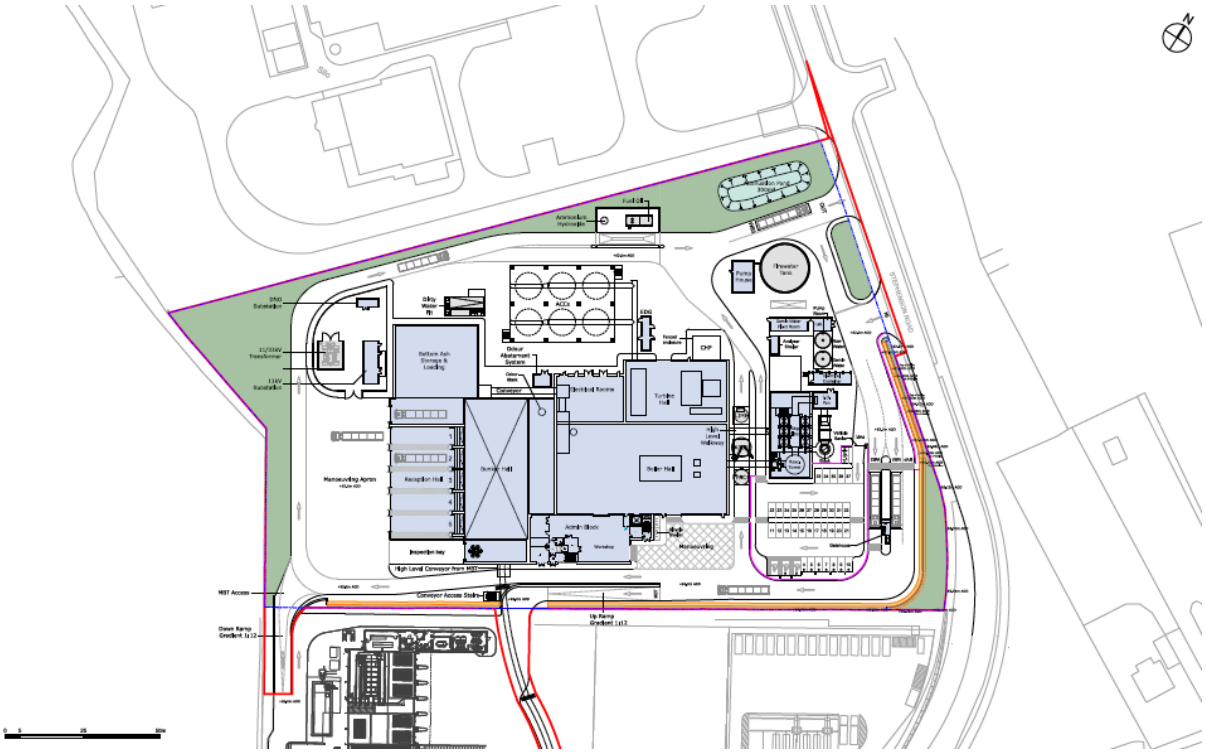
On the basis that the planning application is approved, the overall construction period for the Proposed Development would last circa 36 months. The Proposed Development would have a design life of approximately 25 years although in reality many elements would last beyond this period. Planning permission is being sought for a permanent development and therefore as elements of the facility require repair / refurbishment / replacement this would be carried out.

The Proposed Development would make an important contribution to the acknowledged shortfall in waste recovery capacity within the UK. This shortage is resulting in approximately

11 million tonnes per annum (2018) of residual waste, capable of being subject to energy recovery, being sent to landfill. On top of this, England exported over 3.2 million tonnes of Refuse Derived Fuel to energy recovery facilities in mainland Europe in 2017. The Proposed Development would contribute significantly to the diversion of waste from landfill and the utilisation of indigenous residual waste to generate energy (including renewable energy) within England, as opposed to in mainland Europe.

The Proposed Development would represent a capital investment of circa £200 million during construction, with peak construction phase jobs of approximately 450 on site at any one time. When operational it would employ around 40 people in permanent roles. Like the scheme approved in the 2019 Permission, it would operate 24 hours per day, 365 days per year, but HGV delivery and removal hours would be restricted to 07:00 – 22:00 on weekdays and 07:00 – 17:00 on Saturdays, with no HGV movements on Sundays or Bank Holidays.

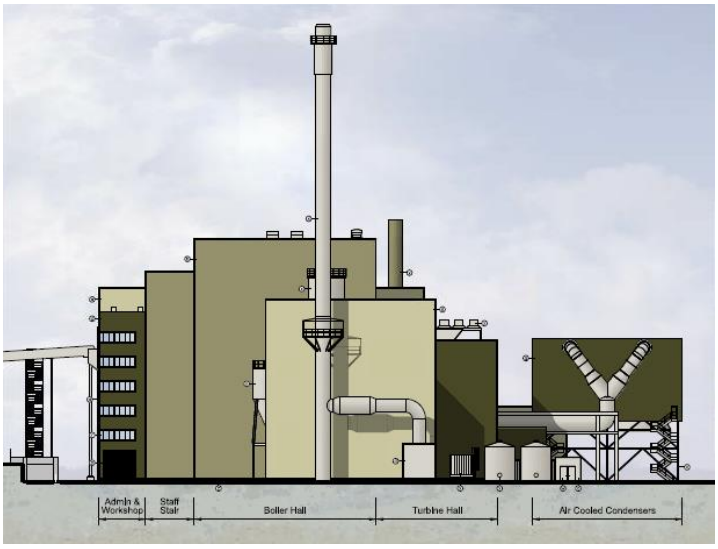
There is effectively a single main building proposed containing the waste reception hall, bunker hall, boiler hall, turbine hall, bottom ash storage and loading hall, and admin block. In addition, there are other smaller buildings, structures and free-standing plant proposed (including odour treatment plant/stack, air cooled condensers (ACC), electricity sub-station, weighbridges and gatehouse, air pollution control measures (flue gas treatment), fire protection measures, and the high level conveyor from the adjacent MBT facility.



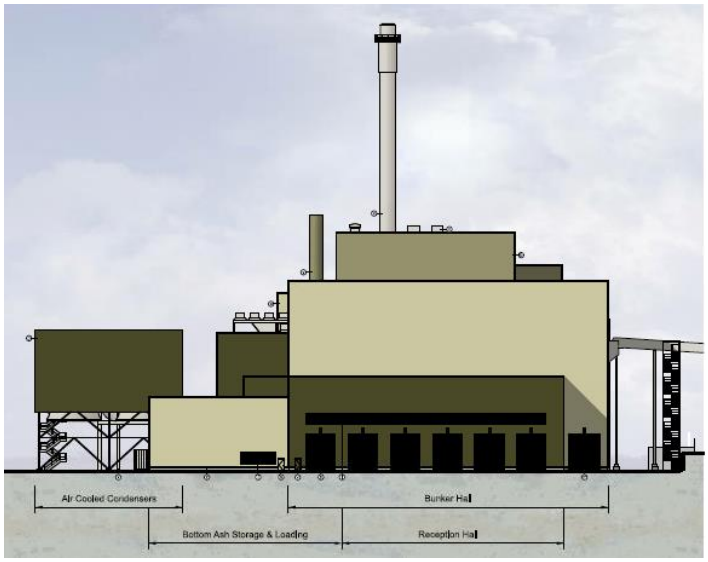
Proposed Site Plan

The main building would have a maximum height of 40m; the stack on the building would be 43m high. Other plant and structures would be smaller and lower, this with the exception of a main stack measuring 75m in height (by way of comparison, the former Westbury Cement works chimney, now demolished, was 122 metres in height). The buildings/plant would be typically industrial in appearance, clad mainly in steel sheeting, coloured grey and/or in shades of green.

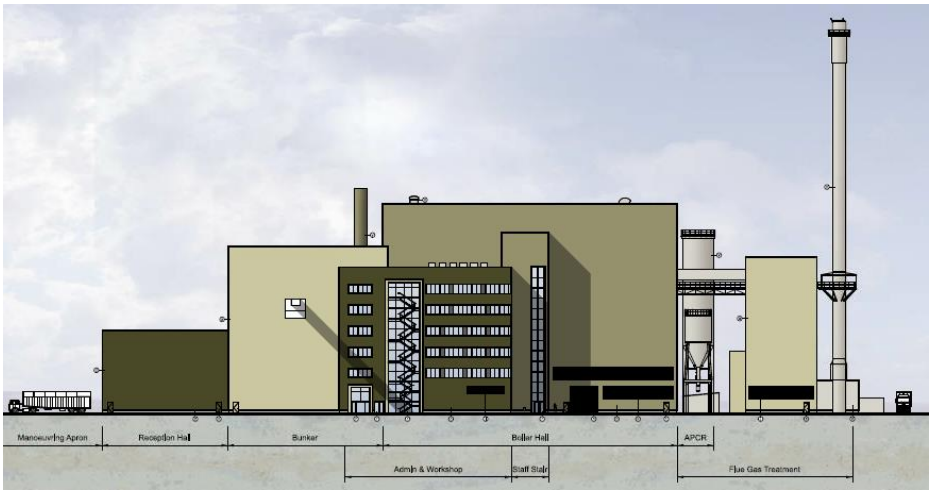
The conveyor linking the MBT to the proposed building would be elevated to a maximum height of 22.4m.



North-east facing elevation

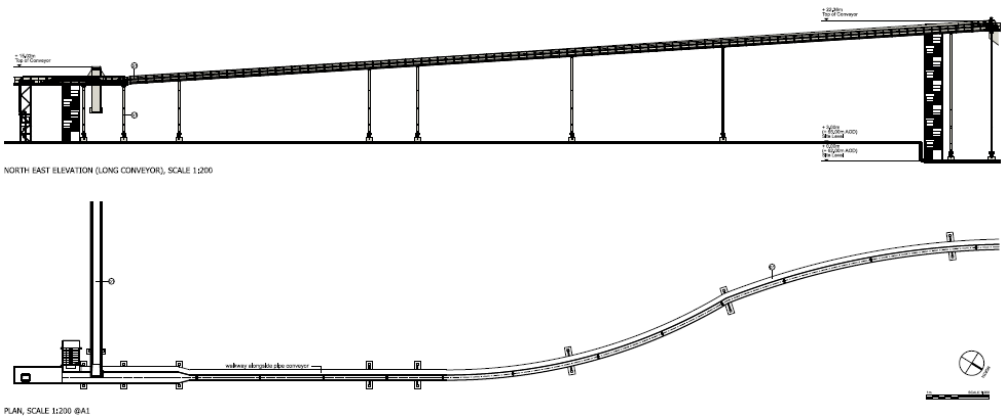


South-west facing elevation



South-west facing elevation

North-east facing elevation



MBT to proposed building conveyor – elevation and plan

In addition to the buildings and plant, the proposal includes internal roads, hard-standings for manoeuvring vehicles and a car park for 37 cars and 4 motorcycles. There would be direct vehicular connectivity (in and out) with the adjoining MBT facility as well as the conveyor.

Some landscaping is proposed at the edges of the site, incorporating balancing ponds for drainage; and a 2.4m high weldmesh fence would be erected around the site's perimeter (and a c. 3.5m high acoustic fence inside part of the Stephenson Road frontage).

Access to the site from Stephenson Road would be in the position of the existing access. Stephenson Road links via the B3097 to the A350, which is a strategic lorry route.

A standalone planning permission (18/09550/FUL) permits a landscaped bund to be formed to the immediate west of the site, its purpose to soften the visual impact of the development in views from the west. The electricity generated by the facility would be exported to the Grid c/o a further standalone planning permission (19/02481/FUL).

Operation

The Environmental Statement accompanying the planning application sets out how the EfW facility will operate. The Non-Technical Summary summaries the process as follows -

Operating Hours and Vehicle Numbers –

The Northacre Facility would process residual waste and generate electricity and heat on a 24-hour basis. In line with 2019 Permission, waste and material deliveries would only take place between the hours of 07:00 and 22:00 weekdays and 07:00 to 17:00 on Saturdays.

The operation of the Northacre Facility would give rise to the following average daily HGV movements / numbers:

- *Input: Residual Waste 61 HGV movements (30 in + 31 out)*
  Consumables: 2 HGV movements (1 in + 1 out)
- *Output: Ash / APCR Exports: 15 HGV movements (8 in + 7 out)*
- *Total (Input + Output): 78 HGV movements (39 in + 39 out)*

However, the facility also receives Solid Recovered Fuel (SRF) and residual waste direct from the adjacent Northacre RRC via a conveyor which forms part of the application and by direct transfer in a vehicle. This removes the HGVs historically associated with managing these materials from the local highway network. These movements average 24 HGVs per day at the RRC.

Therefore, the net HGV as a result of the proposals is an average of 54 HGV movements per day. The current consent for the site proposed an average of 42 net HGV movements per day, so the proposal results in an average increase of 12 HGV movements across the 15-hour working day.

Energy Recovery Process -

Waste Reception and Handling

Residual waste would be delivered to site primarily in bulk articulated HGVs, with some smaller refuse collection vehicles. These would enter the enclosed reception (tipping) hall, where they would tip into the bunker. The residual waste from the Northacre RRC operations (described as "heavies and fines") will be transferred directly in suitable containers such as roll on offs (roro), on a purpose-built access from the Northacre RRC. The SRF will be transferred from the MBT building in a purpose designed enclosed high-level conveyor leading from the MBT directly to discharge in the bunker.

A crane grab would then mix and stack the residual waste / refused derived fuel into the feed chute of the furnace.

Combustion Process

The residual waste / refuse derived fuel would be burned on a moving grate, which turns and mixes the residual waste to ensure full exposure to the combustion process.

Flue Gas Treatment and Stack

Gases generated during the combustion process would be cleaned in the flue gas treatment plant before being released into the atmosphere via the stack (chimney). The treatment plant works by using a number of filters and chemicals to remove pollutants from gases and ensures that the plant operates within the emission limits set out in the Environmental Permit issued by the Environment Agency that will be required prior to operations commencing. As a minimum, the Environmental Permit will meet the requirements of the Industrial Emissions Directive. Emissions from the stack would be monitored continuously and reported in accordance with the Environment Agency's requirements.

By-Product Handling and Disposal

Two types of solid by-products would be produced from the operation, ash and Air Pollution Control Residues, each of which would have separate handling and disposal arrangements.

Energy Recovery –

One of the major benefits of the Northacre Facility would be the ability to generate 25.6 Megawatts of electricity from burning the waste. This would be exported to the local electricity grid. This is sufficient to meet the entire annual domestic electricity needs of around 54,000 homes. The facility would also be capable of exporting heat, in the form of steam or hot water, to local heat users.

Need

The feedstock for the proposed facility would be waste based, comprising non-hazardous residual wastes that are currently either being consigned to landfill or subject to thermal treatment elsewhere, typically in EfW facilities located outside of the UK in mainland Europe. The Planning Statement which accompanies the planning application describes the waste sources and the arising need for a waste management facility as follows –

The Northacre Facility would be a 'merchant plant'. This means that it is not being brought forward primarily to serve a specific public sector waste contract, but to serve the wider market. The input residual waste would be secured through a series of medium and long term contracts with a number of waste management companies, with, initially, the waste being primarily from commercial and industrial ('C&I') sources and with just over 20% of the throughput comprising the residual fraction of Wiltshire Local Authority Collected Waste ('LACW') transferred from the adjacent Northacre RRC. Some of the other input waste may also be LACW where the third-party waste management companies have MSW [Municipal Solid Waste] *contracts, and it may also include combustible fractions of the construction and demolition ('C&D') waste stream. The sources of waste are likely to vary over the life of the facility as new contracts opportunities arise. All wastes received at the site would be classed as 'residual' having been subject to pre-treatment, either through source segregation or direct pre-processing. …..*

Wiltshire Waste –

…. the Waste CS [Core Strategy] *promotes, through Policy WCS1, the concept of net self-sufficiency. This relatively crude concept effectively seeks to align suitable waste management infrastructure capacity with the numerical quantity of the various types of waste material arising within Wiltshire.*

In this case the key waste streams are LACW [Local Authority Collected Waste] *and C&I* [Commercial & Industrial] *waste. Wiltshire broadly generates 250,000 tpa of LACW. In 2018/19 Wiltshire recycled 43.9% of its household waste (household waste being the vast majority of MSW). Applying that recycling figure to the overall LACW stream, the authority generated just over 140,000 tpa of residual LACW requiring treatment.*

In terms of C&I waste, practically no published data has been identified in any of Wiltshire's waste planning or strategy documents, or related evidence-based papers. The most contemporary headline figure revealed is that from the DEFRA C&I Waste Survey (Jacobs 2010) to which Wiltshire Council was a partner. This puts C&I arisings at 286,000 tonnes in 2009. Analysis by Tolvik[1] in their report 'Filling the Gap – The Future for Residual Waste in the UK' (February 2019) puts the annual average growth rate of C&I waste at 1.5% between 2010 and 2016. Applying such growth would give C&I waste arisings of 331,914 in 2019. In the same report, Tolvik provides a C&I waste recycling rate of 60%. Based on this level of recycling, there was circa 133,000 tpa of residual C&I waste requiring treatment.

Based on the foregoing and applying the net self-sufficiency approach advocated by Policy WCS1, ***Wiltshire has circa 273,000 tpa (at around the present time) of residual waste that requires management****. Whilst it is recognised that this tonnage of waste is slightly reduced via the mass loss that occurs in the Northacre RRC / MBT process, and also recognising there will be modest waste growth (increasing residual waste quantities) and increased recycling rates (decreasing residual waste quantities), it can be seen that the Northacre Facility as now proposed would broadly deliver net self-sufficiency in Wiltshire for residual waste management.*

Wider Sub-Regional Need –

As described previously, the Northacre Facility would be strategic in scale, operate on a merchant basis, and serve a wider catchment than simply the administrative area of Wiltshire. Accordingly, as part of the project development phase, NREL has commissioned a sub-regional waste market analysis from the aforementioned Tolvik Consulting. This provides a more commercial evaluation of residual waste treatment capacity requirements within the sub-region.

The report contains commercially sensitive data, but the headline findings of the market analysis, in terms of waste management requirements and available residual waste quantities, have been summarised as follows:

i. The report is based upon:

- *Tolvik's in-house Market Analysis Model – which has itself been developed from a range of publicly available data sources;*
- *DEFRA's Annual Municipal Waste Management statistics;*
- *The Environment Agency's (EA) Waste Data Interrogator tool;*
- *EfW Annual Returns as provided by the EA.*

[1] Tolvik Consulting are recognised as a leading provider of independent analysis of market data in the UK's waste and bioenergy sectors.

ii. ***The report considers a market*** *(split into discrete 6 sub-markets),* ***broadly based on a 2-hour drive time from the Application Site****, but adjusted to reflect the effects of EfW competition, particularly towards the periphery of the market. Its broad boundaries are the Bristol Channel, South Coast, Gloucestershire and vicinity of the A34. Of the 6 sub-markets there is a defined 'Inner' market comprising Wiltshire, Bath & NE Somerset, Bristol and South Gloucestershire.*

iii. *The report focusses purely on 'residual waste'. This is defined as solid, combustible, non-hazardous waste remaining after recycling deriving from either LACW or municipal-like C&I Waste and which is similar to household waste. ……*

iv. *The report looks only at residual municipal-like C&I waste and excludes analysis of residual LACW. Hence any residual LACW that might be available, over the life of the plant, is a further potential source of input material.*

v. *In the market in 2017 there was 0.76 million tonnes ('Mt') of residual municipal-like C&I waste. Of this some 61% (436,000 tonnes) was consigned to landfill and 31% (235,600 tonnes) exported.*

vi. *With regard to future tonnages of residual waste, Tolvik model 3 scenarios, in each case taking account of: future recycling rates; greater resource efficiency; and waste growth. The 3 scenarios are:*

- *Incremental Change – a scenario in which modest, incremental improvements in recycling and resource efficiency are seen, driven by a combination of social attitudes and relatively 'light touch' legislative change;*
- *Median – a scenario in which the key elements of the Waste and Resources Strategy for England ('Our Waste, Our Resources: A Strategy for England') are eventually delivered, but beyond which there is limited progress.*
- *Policy Intervention – in which there is legislative and fiscal support for sustained action on recycling and prevention to deliver recycling performance in line with northern European experience.*

vii. *In the Policy Intervention scenario, residual municipal-like C&I waste falls to 0.64 Mt. Under the Incremental Change and Median scenarios, the tonnages are projected to remain relatively flat through to 2035.*

viii. *Within the market area there are 6 'certain' EfW facilities. These are facilities that are either operating or under construction. All 6 will be operational by 2022. These 6 facilities have a combined merchant C&I waste capacity of 0.3 Mt (the majority of their capacity being subject to long term LACW contracts).*

ix. *In the 2022 Median scenario (which remains relatively constant through to 2035),* ***Tolvik's modelling shows that across the market 0.47 Mt of residual municipal-like C&I waste is potentially available / requires treatment. Of this, 0.13 Mt would be from within the 'Inner' market.***

Based on the foregoing, the following conclusions are drawn about the sub-regional need for the Northacre Facility as now proposed with a maximum processing capacity of 243,200 tpa:

- ***The facility would receive 52,000 tpa of waste directly by conveyor from the adjacent Northacre RRC;***
- ***The remaining merchant capacity of the facility (maximum 191,200 tpa) would make a material contribution towards meeting the residual waste treatment***

requirements of the sub-regional market area, which is forecast to have a capacity gap of circa 470,000 tpa;

- ***Circa 130,000 tpa of the residual C&I waste requiring treatment / potentially available is located in the 'Inner' market most proximate to the Application Site;***
- ***The above analysis is conservative in that it takes no account of any future LACW that may become available in the market area.***

Accordingly, there is a clear and demonstrable need for the Northacre Facility, as now proposed, within the sub-regional area.

Environmental Permitting

In order to operate, the facility will require an environmental permit (EP) that is issued by the Environment Agency (EA). The role of the environmental permit is to provide the required level of protection for the environment from the operation of a waste facility. The permit will prevent pollution through the use of measures to prohibit or limit the release of substances to the environment to the lowest practicable level. It also ensures that ambient air and water quality meet standards that guard against impacts to the environment and human health.

The EP process of determination assesses odour, noise and vibration, accidents, fugitive emissions to air and water, releases to air, discharges to ground or groundwater, global warming potential and generation of waste. EPs set operational conditions, technical requirements, continuous monitoring and reporting requirements as well as emission limit values to meet the requirements of the Industrial Emissions Directive and other relevant legislation. The Environment Agency carries out regular unannounced inspection visits to ensure that facilities are operating in accordance with the permit conditions and scrutinises all data associated with Permitted facilities. The Environment Agency has the power to suspend any Permits it considers are not being fully complied with and are creating an unacceptable risk.

The Environment Agency has a statutory role to protect the environment and human health from all processes and activities it regulates.

6. Planning Policy and Guidance

Wiltshire & Swindon Waste Core Strategy 2009

- WCS1 – The Need for Additional Waste Management Capacity & Self Sufficiency
- WCS2 – Future Waste Site Locations
- WCS3 – Preferred Locations of Waste Management Facilities by type and the Provision of Flexibility
- WCS4 – Safeguarding Waste Management Sites
- WCS5 – The Wiltshire & Swindon Waste Hierarchy and Sustainable Waste Management

Wiltshire & Swindon Waste Development Control Policies DPD 2009

- WDC1 – Key criteria for ensuring sustainable waste management development
- WDC2 – Managing the impact of waste management
- WDC3 – Water environment
- WDC7 – Conserving landscape character
- WDC8 – Biodiversity and geological interest

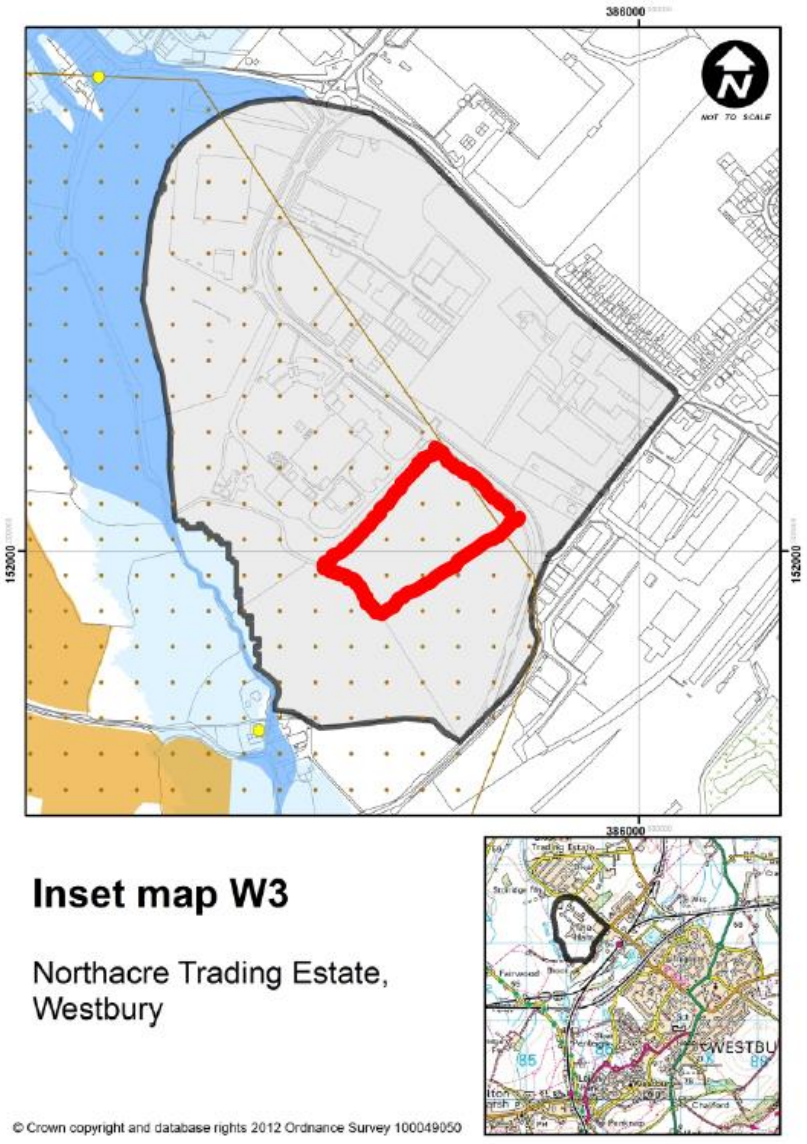
- WDC9 – Cultural heritage
- WDC11 – Sustainable transportation of waste

Waste Site Allocations Local Plan 2013

- WSA1 – Presumption in Favour of Sustainable Development

- Inset Map W3 – Northacre Trading Estate, Westbury …..

  "Potential Uses – Materials Recovery Facility/Waste Transfer Station, Local Recycling and Waste Treatment"



Wiltshire Core Strategy

Core Policy 32 – Spatial Strategy for the Westbury Community Area
Core Policy 35 – Existing Employment Sites
Core Policy 42 – Standalone Renewable Energy Installations
Core Policy 50 – Biodiversity and Geodiversity
Core Policy 51 – Landscape

Core Policy 55 – Air Quality
Core Policy 57 – Ensuring High Quality Design & Place Shaping
Core Policy 58 – Ensuring the Conservation of the Historic Environment
Core Policy 60 – Sustainable Transport
Core Policy 61 – Transport and Development
Core Policy 62 – Development Impacts on the Transport Network
Core Policy 65 – Movement of Goods
Core Policy 67 – Flood Risk

National Planning Policy/Guidance

- National Planning Policy Framework

- National Planning Policy for Waste (October 2014)

  Of particular relevance, the NPPW states the following –

  "*When determining waste planning applications, waste planning authorities should:*

  ……

  - *consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B*[2] *and the locational implications of any advice on health from the relevant health bodies. Waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies;*

  - *ensure that waste management facilities in themselves are well-designed, so that they contribute positively to the character and quality of the area in which they are located;*

  - *concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced;* …..".

- National Planning Policy Guidance

- Waste Management Plan for England 2013 –

  Key statements from this Plan are set out below …..

  Other Recovery -

  The Government supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities. Our aim is to get the most energy out of waste, not to get the most waste into energy recovery. …..

  Disposal –

[2] Appendix B of the NPPW sets out 'Locational Criteria' for testing the suitability of sites in determining planning applications. The full NPPW is attached as Annex 4 to this report.

Landfill or incineration without energy recovery should usually be the last resort for waste, particularly biodegradable waste. (Incineration may be classed as recovery or disposal depending on the circumstances. …).

A replacement Waste Management Plan for England 2020 has recently completed its public consultation stage. Key relevant statements from this emerging Plan are set out below ….

Other Recovery –

The Government supports efficient energy recovery from residual waste – energy from waste is generally the best management option for waste that cannot be reused or recycled in terms of environmental impact and getting value from the waste as a resource. It plays an important role in diverting waste from landfill. In 2016, 6.2 million tonnes were disposed of in energy from waste facilities. The Resources and Waste Strategy promotes the greater efficiency of energy from waste plants through utilisation of the heat generated in district heating networks or by industry, and by seeking an increase in the number of plants obtaining R1 recovery status.

Disposal –

Landfill or incineration without energy recovery should usually be the last resort for waste, particularly biodegradable waste. In addition to the measures outlined in our Resources and Waste Strategy, the landfill tax is one of the key drivers to divert waste from landfill to ensure that we meet our 2020 target of no more than 10.161 million tonnes of biodegradable municipal waste to landfill and our 2035 target of no more than 10% of municipal waste to landfill. That does not mean that all wastes will be diverted from landfill. There are some wastes for which landfill remains the best, or least worst, option. The Resources and Waste Strategy recognised that there is an ongoing role for landfill in managing waste, particularly for inert waste that cannot be prevented, recovered or recycled, but that its use should be minimised as much as possible. …..

- 'Energy from Waste – a guide to the debate' (February 2013)
- 'Our Waste, Our Resources: A Strategy for England' (December 2018)
- Climate Change Committee – 'progress' and other reports

7. Consultations

Westbury Town Council: Objection

- *That insufficient time has been allocated to pursue, take in or evaluate 237 statements and documents comprising at least two thousand pages or commission independent analysis.*
- *That the applicant has failed to provide a Biodiversity & Geodiversity site analysis and statement as required by the Wiltshire & Swindon Waste Site Allocation Plan 2013.*
- *The applicant (NREL) has failed to provide any information, specification, description, or technical detail of the technology (the Incinerator) or impact analysis of the system they intend to use.*

- *The applicant has consistently refused to provide precise detail of where they will source waste by; type, quality, composition, transport arrangements including the routing of waste by 20ton HGV to Northacre Park.*
- *That the applicant has failed to take in to account the impacts their plan may have in terms potentially serious coalescence of increased traffic flows on the west Wiltshire transport network by relying on old and out of date data. They have not considered increases in HGV traffic associated with the Weight Restriction on Cleveland Bridge, or the impacts of the Bath Clean Air Zone or the planned introduction of its next phase.*
- *The Applicant has failed to take sufficient account the significant impact of their plan on local air quality. NREL is not the only emitter of foul and potentially toxic pollutants on the Northacre site, the Brook Lane Industrial Area or the West Wiltshire trading Estate. This plant adds to this noxious mix and may produce a potentially dangerous coalescence of smells and pollutants that are harmful to the public Health.*
- *The applicant because of their use of standard technical data and old pre COVID data has failed to provide an accurate assessment of the impact on local receptors of the noise emitted from the facility, especially at night, when mixed with the array of noises that are currently recorded and which are considered significant.*
- *Carbon offset calculations based on current electricity generation methods do not allow for expected improvements in 10, 15, 20 years' time. We have proposed nuclear plants (carbon free) and have already seen a massive increase in renewables which there's no particular reason to assume will not continue. Although currently too much waste still goes to landfill and there has been little investment in technologies such as methane capture at landfill sites, it should not be assumed that there will be no improvements over the long life-time of this plant. This makes the future carbon savings very doubtful as electricity becomes cleaner and our waste production is reduced at source with more recycling taking place etc. whilst the CO2 output of this plant is guaranteed and will never reduce.*
- *Wiltshire Council has declared a climate emergency and therefore should be looking at higher levels of recycling with waste not being burnt at all but truly recycled. Burning it is just one step off the off the bottom of the waste hierarchy and Wiltshire Council should be mindful of their commitment.*

In conclusion this council recommends:

- *The applicant by their over reliance on old, pre-COVID data has made a series of assertions and conclusions that are based on entirely on assumptions. By doing that, they have failed to provide any report or assessment that comes close to adequately providing either a reasonable or accurate assessment of the Impacts of their development.*

Bradford-on-Avon Town Council: Objection

…. Such a proposal is incompatible to the Climate Emergency declarations of both the Town Council and Wiltshire Council, which the Plant would have a clear impact.

Further planning to reduce controls on harmful emissions during an ongoing pandemic is deeply concerning, given that evidence suggests that poor air quality exacerbates the symptoms of COVID-19, as it does with many other pulmonary diseases.

The Town Council sent a letter to the applicant in 2019 expressing grave concerns and seeking answers to questions about the Northacre gasification plant application and should be noted that those questions remain unanswered, and the concerns un-allayed.

It is considered that little has changed which to justify approval, even of the original plan, let alone to support revisions which produce lower standards, that would have a direct impact on our community and others across Wiltshire. The proposed changes compound and increase negative environmental impacts; not just with regard to increased carbon and particulate emissions but also increasing vehicular activity delivering larger volumes of waste, placing additional stresses on the area's already overloaded highways infrastructure.

We understand that as a reduction in waste going to landfill and generating power, a waste-to-energy scheme could be beneficial for a short-term waste disposal and energy generation, especially if it also reduces haulage miles. However, we also know, but are unclear as to the reason emissions standards were reduced by central government in 2019; changes which have paved the way for this revised proposal. These changes are in opposition to the Government's avowed reduction in carbon footprint. Further, the changes will be detrimental to the immediate well-being of residents across the entire area. They also run contrary to various court decisions which have cited the government for failing to have in place a lawful plan to improve air quality.

We therefore consider this proposal, and any subsequent application to amend the approved plan, to be directly damaging and impactful on our community, the region, and the environment ….

Bratton Parish Council: Objection

Fundamentally the application sharply contradicts the Country's and the County's environmental and climate change objectives. Burning waste is wasteful. The appetite of this planned incinerator will inevitably mean that initiatives to improve re-cycling targets will be discouraged as a profitable business requires a large and consistent supply of raw materials of which 90% could be recycled or composted with the right strategies in place. It is noted that the application states that the waste supply will be obtained both from Wiltshire and beyond.

The Council recognises that, in the short to medium term, EfW facilities are perhaps necessary whilst the county works towards Zero Waste, but allowing a facility to be built which does not deliver the benefits of the latest technology would be inappropriate. The abandonment of the approved gasification proposal is a financial decision. Gasification is more expensive technology than incineration (up to 1.5 times). It is a completely different process and describing this application as an amended energy from waste facility is a misnomer. It is a completely different type of facility producing more toxic emissions, contributing more to climate change, producing more toxic emissions and generating less energy. The 2018 decision is not a precedent for this application and should not be accepted as such. It would appear no Environmental Permit has yet been issued under the appropriate regulations. The Council considers that the Planning Authority needs to ensure such a Permit can be issued as there is significant public concern in Bratton, and elsewhere, about the management of the emissions from this operation. Again, a gasification plant poses less risk than an incinerator in this regard.

Finally, the Council objected to the 2018 application because the facility would generate significant amounts of traffic movement. It is noted yet greater traffic volume will be generated. The facility is designed to manage 10% more waste than the original consent not only through Westbury, an Air Quality Management Area, but also on minor roads such as the B3098 through this village.

Chapmanslade Parish Council (nearby parish): Objection

The reduced environmental standards proposed in the application for a gasification plant are incompatible with Wiltshire Council's declared Climate Emergency and Environmental Strategy. A fossil-fuel based incinerator will increase the carbon footprint and places the proposal on the bottom tier of the waste hierarchy.

Any proposal to reduce emission controls, especially during a pandemic such as COVID-19, resulting in the strong possibility of toxins in particulate form (especially PM 10 and PM 2.5 in accordance with current Government air quality statistics data) which are harmful to respiratory, heart, and brain functions particularly in the very young and elderly sectors of our population, is contrary to promoting good health, government guidance, and good sense.

Whilst the average annual wind speed and direction for our region is west south-westerly at 9 knots, local conditions and topography mean that the Parish of Chapmanslade including Short Street will be in direct line of pollutants from the site when there is a north -easterly wind; approximately 1/3 of the year.

The proposal not only has a significant negative environmental impact from increased carbon and particulate emissions from the plant site but compounds this with a proposed increase in vehicular traffic thereby further increasing the carbon footprint, the road particulate footprint, and placing even greater stress on the region's already congested road network.

The changes outlined in this proposal will create a long-term detrimental effect to the environment across our local and regional community. They are contrary to the Government's and Wiltshire Council's declarations to reduce the carbon footprint and pose a direct threat to the health and well-being of our communities. Whilst understanding the requirements to deal with un-recycled waste, Chapmanslade Parish Council urges the Wiltshire Planning Department and the Environment and Planning Committee to dismiss this application and seek another more environmentally acceptable solution.

Corsham Town Council: Objection

Wiltshire Council and Corsham Town Council are committed to becoming carbon neutral by 2030 and this proposal would seem to be contrary to that aim. The proposed changes increase the negative environmental impacts not just with increased carbon and particulate emissions but also increased vehicular activity on the already busy A350 and other local roads.

Coulston Parish Council: Objection

- *Using incineration instead of gasification is a retrograde step in waste management which will result in more pollution. The proposal states that the application is now for an incineration plant rather than a gasification plant because of 'less stable supply chains' for the latter due to Brexit, but it is unclear what this actually means. Incineration plants certainly provide a faster return on investment but are more damaging to the environment. They are an older technology, simply burning the waste at high temperature and generating carbon dioxide and water, and an ash that goes to landfill. Because burning uses copious oxygen, there is the potential for pollutants like dioxins and furans to form, and there is no safe level of these toxins for humans. The extent to which they form, and the extent to which they can be removed before the plume is emitted, crucially depends on the type of waste being incinerated, and the details on this are vague, will change over time, and will not be able to be controlled by the Council or the Environment Agency. Therefore, the projected emission values are simply hypothetical.*
- *The proposal is for nearly 50% more waste than the 2019 application, and only 20% of the waste will be from Wiltshire. The proposal is for the processing of 243,000*

tonnes per annum instead of 160,000 tonnes. Of this increase of over 50%, 72,000 more tonnes will be arriving by road. 80% of the waste will come from outside the county.

- *The proposal will generate significant extra heavy goods traffic with its associated pollution and impact on quality of life and the environment. The proposal is for a significantly greater number of HGV movements compared to the 2019 application. A lorry will arrive or depart every 15-20 minutes until 10pm on weekdays, and the plant itself will operate 24/7. Traffic is likely to be even worse than this at times during construction. This number of HGVs will create unacceptable atmospheric, light and noise pollution, damage to the highways, and adverse impact on both the population and the environment. The lorries will use highly unsuitable roads such as the B3097 and B3098 in order to reach the M3 and the Channel ports.*
- *The proposed building is even higher than the 2019 one, and with 2 stacks of 75m and 43m, will be an eyesore visible for many miles due to its location. This contravenes the Wiltshire Core Strategy with respect to visual amenity.*

Dilton Marsh Parish Council: Objection

NRE states the waste – 243,000 tonnes of it annually - will be residual waste from households and businesses but they have failed to provide details of the quality and composition of said waste and where they would source it. It could come from across Wiltshire and beyond. As capabilities for recycling locally improve, and therefore less residual waste created, waste will undoubtedly be brought from further and further afield.

The roads around Westbury suffer from considerable congestion and over capacity already. This proposal would add 53 [fifty-three] 20ton HGV truck journeys daily on the already overburdened west Wiltshire traffic network, taking the vehicles on their final, or initial, stage of the journey along a 'B' road – B3097. Westbury has already been impacted by the ongoing weight restriction on Cleveland Bridge, Bath, meaning many HGVs are now rerouted along the A350 – there seems to be no evidence from NRE that they have taken this into consideration in their application.

The existing density of population in the area, which is ever increasing with ongoing new builds, supports the view that the incinerator is in the wrong location. Why?

- *the emissions from the chimney – many of which are the smallest particles that are unable to be monitored by the EA;*
- *the traffic movements mentioned above;*
- *the visual impact. The height and bulk of the proposed building, which is on rising ground, adversely impacts on the appearance of the area contrary to Core Policy 51 (to protect and conserve visual amenity). The stack alone is 25m higher than Wells Cathedral.*

Wiltshire Council has acknowledged a Climate Emergency and therefore has a commitment to becoming carbon neutral by 2030. This application is completely at odds with this: it is a retrograde move from NRE's earlier gasification proposal since it now involves a burning process, which is classified as being on the bottom tier of the waste hierarchy.

Edington Parish Council: Objection

- *That there are pollution issues and that gasification is cleaner and more environmentally sound*

- *That the current A36 diversion as a result of the closure of the bridge in Bath was not likely to be resolved in the near future, if at all, with the resulting pressure on an inadequate A350*
- *The generation of significantly more HGVs not only using the A350 but other local roads which are not capable of being improved to accept such traffic to any great extent*
- *That Wiltshire Core Policy 51 is highly relevant due to the bulk and height of the proposed building and elevated position of the site – already visible*

Frome Town Council: Objection

The proposal will cause additional vehicle movements through Frome, using the local road system to supply 24 hour a day continuous operation. These vehicle movements will cause air pollution and noise pollution whilst travelling through Frome and across their journeys, travelling up to two hours to reach the site.

We are concerned about the creation of more greenhouse gases caused by the incinerator and the impact that will have on the environment. Frome Town Council, Mendip District Council and Somerset County Council have all declared a climate and environment emergency. We should be encouraging people to produce less waste rather than providing further facilities to dispose of it. There are already two incinerators in the area at Avonmouth and Swindon.

We are also concerned that toxins from the incinerator will drift towards Frome having an unacceptable impact on both residents and the environment.

Heywood Parish Council: Objection

- *The only access road to the site for HGVs from the A350 is the B3097 (Hawkeridge Road) and is unsuitable for the volume and size of the vehicles that currently use it. The road was a C road and was reclassified to a B road several years ago with no upgrading works being carried out. It has a 50mph limit, even though there is a school on it, and suffers from a number of traffic issues resulting from the high level of movements (approximately 12,750 per working day). NREL's transport plan forecasts an increase in traffic volume on the road of 25% by 2025 and that 1,218 HGVs will be using the B3097 daily by then, 53 of them being from the incineration plant.*
- *The increased volume of traffic generated by the proposal would have an adverse effect on the already poor air quality along the A350 in Westbury.*
- *A previous application on the site was rejected because the proposal would have an adverse effect on the appearance of the area and would be contrary to Core Policy 51 which seeks to protect, conserve and enhance the amenity of the landscape and this proposal is for a bigger building.*
- *Any discharge from the chimney will be blown by the prevailing south-west winds over the housing areas on Storridge Road and The Ham and on to the West Wilts Trading Estate raising health concerns for anyone under the plume.*
- *There will be residual waste from the incineration plant which will have to be taken elsewhere for disposal.*
- *Wiltshire Council has declared a climate crisis and this proposal to use incineration is a retrograde step in waste management.*

Marlborough Town Council: Objection

Some Members felt there wasn't enough information to make an informed decision and that, given the location, it wasn't the place of Marlborough Town Council to agree to the request. Others felt more could be done to recycle some of the waste and noted that it had been approved prior to Wiltshire Council declaring a climate emergency and that some of the waste came from outside the county.

Resolved to object to the application on the grounds of concerns about pollution and contamination

Melksham Town Council: Objection

- *The adverse impact of increasing numbers of lorries on the A350 taking material to the incinerator. The A350 is already a busy route and the increased traffic volume will impact adversely on the Melksham area. The proposed 2-hour travelling time radius to the incinerator would mean that waste could be transported to the site from all over the south of England.*
- *Similarly, the transport of waste residue out of the incinerator is also undesirable for the reasons of increased traffic volume on the A350 around Melksham.*
- *Some of the waste residue to be transported out of the site will reportedly be toxic to varying degrees. Councillors are concerned regarding the public health and environmental impact of a road traffic accident on the A350, or elsewhere in the Melksham environs, involving a lorry carrying, particularly, the more toxic waste residue material.*
- *The reportedly very large quantity of CO2 emissions from the proposed facility will negatively impact on Wiltshire Council's published aspiration to become carbon neutral by 2030.*

North Bradley Parish Council: Objection

TRAFFIC: Traffic to and from the site. This site is situated in a very over used road network. Westbury Road is at present a very busy road already leading to traffic backing up and queuing in both Westbury and Yarnbrook. The amount of extra vehicles using this site will cause complete deadlock on the roads and the surrounding villages of North Bradley and Southwick. Our local roads are already over crowded with even more lorries bypassing Bath. The roads cannot cope with more large lorries cluttering them up.

ENVIRONMENT: The extra fumes in areas that already have higher pollution levels than they should will lead to more cases of asthma and other lung diseases already aggravated by the high volume of traffic would be unacceptable. These plumes will not just be affecting the many residents close by but the neighbouring villages. The tall chimney will spew its toxic fumes over a very wide area. The plant uses technology that does not reach the standards already agreed upon. It will burn commercial rubbish (of no benefit to local residents) from a very wide area to make it viable.

LOCATION: The site is next to a food processing plant and in close proximity to new housing estates and Westbury town.

VISUAL IMPACT: It is apparent that a previous application was REJECTED on the grounds of visual impact and yet this proposal is even larger. The NEW plant dwarfs the ARLA factory which can be seen from far and wide, including the WHITE HORSE.

OPERATING HOURS: This proposed Incinerator will operate 24 hours a day, which means traffic coming and going 24 hours a day!

Steeple Ashton Parish Council: Objection

Development of the incinerator will lead to an increase in heavy vehicle traffic on the A350 through our parish of 54 HGVs per day, six days a week. Wiltshire Council should be seeking to reduce vehicle movements, not permit developments which increase them. The A350 is already badly congested around the West Ashton and Yarnbrook area, backing up to Stoney Gutter crossroads at peak times.

The proposed incinerator technology is a retrogressive step compared to the gasification technology currently permitted. Wiltshire Council should be seeking the use of Best Available Technology for such developments.

The burning of waste will release CO2 and other pollutants into the atmosphere. Steeple Ashton lies downwind of the stack and we are concerned over the health impacts from these airborne pollutants.

The plant is a 'merchant site' and as such is not linked to Wiltshire's waste strategy. There are plenty of other available options for the incineration of such waste; this plant is not a necessity at this location.

The plant is a low-density employer and will provide no economic benefit to our parish.

Trowbridge Town Council: Objection

Trowbridge Town Council considers that the proposed development will result in excessive levels of additional transport of materials which offer an unacceptable risk, concentrated in one location within the county, particularly when the local road infrastructure is already inadequate; that it will create unacceptable levels of pollution, concentrated in a local area, where pooling of such airborne pollution can occur due to the landscape and that it will have an unacceptable impact on the residents of Trowbridge and neighbouring towns and villages.

Upton Scudamore Parish Council: Objection

- *Wiltshire Council has declared a Climate Emergency and has a commitment to becoming carbon neutral by 2030. This application is going against Climate Emergency with the emissions not being carbon neutral.*
- *The amended application to an incinerator, as opposed to gasification, will use old technology increasing emissions into the atmosphere.*
- *Traffic – the A350 through Westbury is already congested and at capacity. The A350 has been impacted by the ongoing weight restriction on A36 Cleveland Bridge, Bath, meaning many HGVs are now rerouted along the A350. The increased capacity will increase traffic to and from the proposed site will add more congestion, harmful emissions and pollution. Although the A350 bypasses Upton Scudamore, the effect of increased traffic will impact on vehicles accessing and exiting the village at two locations.*
- *Any effluent plume would have a significant negative impact on the village of Upton Scudamore*
- *The visual impact on Upton Scudamore would be contrary to National Planning Framework Policy paragraph 151a in respect of the cumulative effects and, being unacceptable, contrary to Policy paragraph 154b.*

Warminster Town Council: Objection

Warminster Town Council considers that the proposed development will result in excessive levels of additional transport of materials which offer an unacceptable risk, concentrated in one location within the county, particularly when the local road infrastructure is already inadequate; that it will create unacceptable levels of pollution, concentrated in a local area, where pooling of such airborne pollution can occur due to the landscape and that it will have an unacceptable impact on the residents of Warminster and neighbouring towns and villages. This application goes against the spirit of the Warminster Town Council's climate change declaration.

West Ashton Parish Council: Objection

Environment: The plant uses technology that is obsolete and does not meet the standards already agreed. It will burn largely commercial and industrial waste from a very large area, with only approx. 20% being household waste. The incinerator's toxic emissions from the 75m high chimney will undoubtedly spread out over a wide area, and has the potential to lead to unacceptable increases in cases of asthma and other lung related diseases amongst residents in both Westbury and the surrounding villages.

Traffic: Westbury is already an Air Quality Management Area, due to existing traffic pollution exceeding the Nitrogen Dioxide limits of 40mg/m3. The significant daily number of HGV, and staff travel trips associated with this application, will create a huge increase in the already unacceptable level of traffic on the road network in and around Westbury, severely adding to both air pollution levels and traffic congestion. The road network in and around Westbury is already heavily loaded; the A350 is yet to be re-routed as part of the Ashton Park development for Trowbridge, which in turn impacts on West Ashton. Any proposal to alleviate traffic by building a Westbury bypass is seriously misplaced and has already been refused following the 2008 Report to the Secretary of State for Communities and Local Government, and the Secretary of State for Transport.

Location: Most plants of this nature are situated well away from housing; however, this proposed site is not only adjacent to a food processing plant, but also on the edge of the built-up area of Westbury, with several new housing estates having been built, or agreed, within just a few hundred meters from Northacre.

Visual impact: The building itself, now painted green and with minute adjustments, is nearly identical to the one rejected in July, and with the overbearing impact and massive 75m chimney.

Wiltshire Council Archaeology: No objection.

The Wiltshire and Swindon Historic Environment Record shows that the proposed development area (PDA) lies close to sites of archaeological interest. Earthworks of a deserted medieval village have been mapped from aerial photography and field survey adjacent to the proposed development site, which mark the remains of Broke village recorded in the 13th century. The main part of the settlement site is nationally designated a Scheduled Monument (ref. 1019386) and is situated approximately 300m west of the PDA. Brook Farmhouse is a Grade II Listed Building (ref. 1180471) and lies just over 200m southwest of the PDA.

The proposed development site was investigated by archaeological evaluation in 1999 and though a number of archaeological features relating to medieval settlement were identified further to the west, no archaeological activity was encountered in the trenches within the area of the proposed development. I therefore do not consider there to be any requirement for further archaeological investigation.

Wiltshire Council Conservation: No objection.

The following comments relate only to the built historic environment. The impact on archaeological assets and more general landscape considerations falls to others for consideration.

Policy/legislation: From the point of view of the historic environment the main statutory test is the Section 66 of the Planning (Listed Building and Conservation Areas) Act 1990 requirement to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

The Council's Core Strategy – 'Core Policy 58: Ensuring the conservation of the historic environment' requires that designated heritage assets and their settings will be conserved. It is also required that distinctive elements of Wiltshire's historic environment, including non-designated heritage assets, which contribute to a sense of local character and identity will be conserved, and where possible enhanced. The potential contribution of these heritage assets towards wider social, cultural, economic and environmental benefits will also be utilised where this can be delivered in a sensitive and appropriate manner.

The NPPF sets out the Government's high-level policies concerning heritage and sustainable development. The Framework makes it clear that a key dimension of sustainable development is protecting and enhancing the historic environment and that in order to achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system. Section 16 'Conserving and enhancing the historic environment' is particularly relevant. Paragraph 189 requires applicants to describe the significance of any heritage assets affected including any contribution made by their setting. Paragraph 196 requires a balanced approach to decision making with any harm which would be caused to designated assets being weighed against the potential public benefits which might be achieved.

The National Planning Practice Guidance provides more detailed advice with regard to development within the setting of designated heritage assets as does the Historic England Good Practice in Planning Advice Note 3: The Setting of Heritage Assets (updated 2017).

Proposal: The proposal is a revised scheme for the construction of a plant which will use advanced thermal treatment technology to generate electricity and heat from solid recovered fuel (SRF) and commercial and industrial waste that would otherwise be exported to mainland Europe or landfill in Wiltshire respectively. A previous scheme was granted consent in 2015 and the principle of a plant of this general type is therefore established. A revised scheme which proposed a number of changes in response to development of the detailed design, including an increase in the building height (but on a slightly narrower footprint), accompanied by a taller chimney flue, was refused earlier this year.

Various amendments to that scheme are now proposed with the intention of mitigating the impact of the revised proposals including the reduction of the scale of some of the buildings, regrading work to reduce the overall site levels by 2m and re-considering the colours of cladding to reduce visual impact. The height of the chimney remains the same as the earlier 2018 application i.e greater than the approved version, as does the bulk of the buildings. As a result, the visual impact of the plant will be both greater at close quarters and appreciated over a greater distance than the scheme which was originally approved. In addition the chimney will have a greater chance of breaking the skyline in long views.

The site: The site is a vacant plot within the existing Northacre trading estate which has been allocated within the local development framework for employment and/or the proposed waste facility.

Issues: The site is not included within a designated conservation area and contains no major standing heritage. Accordingly, one would not expect historic building issues to be a dominant factor in the preparation of proposals for the site. However, it is a requirement of the NPPF (para 189) that applications should be accompanied by a heritage assessment which identifies the heritage assets within the area and assesses any impact upon those assets and their settings. In this case it is acknowledged that there is no direct impact upon any heritage asset and the issues will therefore largely relate to consideration of the 'setting' of assets in the vicinity.

The proposals are accompanied by a further update of previous heritage reports. The findings of the various heritage reports are carried through into the Environmental Statement. As previously noted, despite considerable discussion with the Council during the life of the original application, the heritage assessments remain flawed with problems with the original information perpetuated within the more recent submissions which rely on the original work and comment only on changes in impact.

The scope of the studies remains poorly defined and the choice of assets for study rather odd. It is accepted that over longer distances visibility is a relevant issue and that areas of study are thus often initially set using ZTV (zones of theoretical visibility) – however, this should be qualified by a level of professional judgment. The choice of assets in this case however, based upon the ZTV data, seems to follow no logic. Why for example does Park Court at Upton Scudamore, a small manor house sited in a relatively enclosed site within a village and without any indication of a wider designed setting, merit consideration but not Heywood House, which is closer, situated on rising ground and with a designed setting which is clear on mapping, incorporating long views of the borrowed landscape, be omitted? It also remains the case that there is no consideration at all of non-designated assets although para 189 refers to 'heritage assets' in the broadest sense and these should be included.

Having made the selection, the consideration given to the impact on the assets is also flawed. Having noted in the Environmental Statement that intervisibility is not the only consideration, the studies consider the impact of the development almost exclusively in visual terms. The 'significance' of the assets is equated with their value in purely quantitative terms, expressed as a reflection of their designation grade. Little attempt has been made to understand the significance of the assets in the sense currently accepted as being required in conservation assessment (i.e. definition of the nature of the special interest of the building) or to assess the contribution that their setting makes to that significance and the impact that the development will have on this. As a result, whilst I do not necessarily disagree with the final conclusions reached, the reasoning behind them is flawed.

As with the previous applications therefore, I do not consider that the document demonstrates the comprehensive understanding and assessment of heritage impact envisaged by current policy and guidance. However, the NPPF (para 190) also requires the Council to make its own assessment of impact and the previous heritage recommendations were based on such internal assessment. To summarise this assessment on behalf of the Council:

The impact on the settings of the listed Storridge Farmhouse and the highly graded Brook Hall complex will be neutral overall, largely as a result of existing intervening modern industrial development which has already changed and redefined their settings via the presence of urban development…..within the immediate setting in the case of Storridge Farmhouse and slightly wider for Brook Hall. The changed design is unlikely to have any significantly greater impact.

Heritage assets which are further removed from the site which could be considered as having a relationship with the surrounding landscape which renders them particularly sensitive to development within their settings, whether as a result of fortuitous accident or design - such as churches with spires or country houses with designed settings, are also capable of being negatively impacted by proposed development. In this case, Heywood House is identified as the only likely sensitive receptor. This grade II listed building is a mid C19th country house located within its own parkland, which makes a positive contribution to its significance as a designed setting to the house. The house has wide views over the park and lake to the south, towards the northern escarpment of Salisbury Plan and the Westbury White Horse and a clear design intention of 'borrowing' these views to contribute to the setting of the house can be detected. However, there are no similar designed views to the west and intervening development and geography which will screen the proposed development mean that there is unlikely to be any significant impact on the wider setting of the house on this occasion.*

There are a number of buildings within the vicinity which have the potential to be considered as non-designated heritage assets, by virtue of their age etc. These include, Brook Cottage (formerly Butler's Cottage) to the north west of Brook Farm and Brook Cottages at the former Brook Mill Farm, the Railway Inn and adjacent former brewery on Storridge Road and Westbury Station. None have been assessed in detail to consider whether they retain sufficient character/integrity to be considered as heritage assets as, in the latter cases, geography and intervening development dictate that the impact on their settings will be largely neutral. Any modest visual impact in the case of Brook Cottage will be limited due to the cottage character of the building which dictates that its immediate garden is likely to constitute its primary focus and setting, with the wider landscape making a lesser contribution. Its wider setting will, in any case, remain primarily rural in feel, albeit that the industrial estate impinges to the north.

However, I do consider that a degree of harm will result to the setting of Brook Farm, including the principle listed farmhouse and its remaining curtilage listed historic outbuildings. A fundamental element in the understanding of the historic character of a farmstead lies with its relationship with the surrounding countryside. The cumulative impact of the new development alongside existing, will contribute to the erosion of the link between the farm and its agricultural hinterland, and the continuation of the process of urbanisation of the rural scene and reduction in tranquillity which may result from noise, vibration and lighting spill from the site. That said, to the east and south of the farmstead the rural landscape remains largely unchanged and the farmstead can still be understood within its agricultural setting. Taking into account the vernacular character of the farmhouse (indicating the house has not been built with a deliberate intention of taking advantage of any particular vistas or views), its orientation and main outlook and the screening impact of the modern farmyard and a modern house to the north and east, as well as the lie of the land which limits the visual impact and provides some mitigation from noise, this harm should be taken to be at the lower end of 'less than substantial harm'.

The original report concluded that there would be "no substantial harm" to any designated asset but acknowledged a "minor negative harm" to both Brook Farm and the adjacent scheduled monument which was taken to suggest agreement in respect of a 'less than substantial harm' which should be tested against paragraph 196 of the NPPF. The more recent updated reports have concluded that revisions to the design will not result in any change in the settings of heritage assets and consequently that there will be no additional harm. In my opinion the revised design, which resulted in a greater mass of development and increased tendency for an overbearing development, will impinge to a slightly greater extent on the setting of Brook Farm in terms of increasing the process of urbanisation of the rural scene. The current amendments will provide only very limited mitigation of these impacts. Other impacts such as those associated with the reduction in tranquillity which may

result from noise, vibration and lighting spill from the site will remain much the same. Overall, the impact on the special interest of the building will be largely unchanged from the original assessment.

Conclusion: the proposals will result in a degree of harm to the setting of the listed Brook Farm, which should be considered as "less than substantial".

It has been made clear in a number of recent cases that it should not be taken to follow that if the harm to heritage assets is found to be less than substantial the subsequent balancing exercise undertaken by the decision taker should ignore the overarching statutory duty imposed by section 66(1). On the contrary, considerable weight should be given to the desirability of preserving the setting of all listed buildings. In addition, the NPPF requires a balanced approach (paragraph 196), with any 'harm' which would be caused to the significance of heritage assets being weighed against the public benefits which may be brought forward by the implementation of the development.

The final planning balance falls to be assessed by the Case Officer, however as previously, it is assumed that the proposed development, which is on a site previously allocated for the purpose, will be considered to have the potential to bring forward substantial public benefits in terms of the contribution to Wiltshire's recycling strategy. On this basis, I consider it likely that the modest and "less than substantial" harm caused to the setting of the listed building will be outweighed. I therefore have no objection to a positive recommendation for the proposed application on the basis of the built historic environment.

Wiltshire Council Climate Change Team: Objection.

….. there has been a material change in policy (Climate Emergency Wiltshire, Climate Change Act 2008 (2019 update)) since the 2018 application 18/09473/WCM, and a material change in size and scale of the proposals (from processing 160,000 tonnes per annum (tpa) waste to 243,000 tpa waste).

The site will emit carbon dioxide. This is considered to be on a much greater scale than that suggested in the 'Northacre carbon assessment report', which has been peer reviewed by the University of Exeter (see previous email dated 22 October 2020). This review has found errors in the values used, and as such the 'Northacre carbon assessment report' is considered to currently understate the amount of carbon dioxide the proposed site would emit in its lifetime. The peer review concludes:

"… that the Assessment's starting point, a comparison with landfill, is not correct. The Assessment uses input data and assumptions that understate the carbon dioxide emission from the proposed Northacre EfW facility which, were these changed to more realistic values, would increase carbon dioxide emission by 278%. The Assessment does not address ways in which carbon dioxide emission from the EfW facility could be reduced. Methods include reducing plastics in the waste input stream, increasing the thermal efficiency of the plant through the local use of very significant amounts of heat and providing for carbon capture and storage of flue gasses".

The applicant restated their position on 2 November 2020. In response, the University of Exeter has highlighted some key flaws in the applicant's carbon assessment which are that it:

1. *Compares landfill as the alternative to EfW when landfill, with the exception of inert waste, is likely to stop;*
2. *Uses historic compositional analysis when segregation, recycling and circular economy initiatives will see the composition of residual waste change significantly;*

3. *Ignores decarbonisation of the electricity grid which is expected to reduce emissions factors to near zero by 2050;*
4. *Does not consider steps to minimise and mitigate CO2 emissions from the facility through reduced fossil waste input, substantial heat use and carbon capture and storage.*

The University of Exeter's response dated 15 December 2020 further points out that while a condition requiring local use of the heat produced could help to mitigate the plant's carbon impact, the actual potential for local use at the Northacre site is extremely limited. The largest potential user locally is Arla dairies, which is estimated to be able to absorb at best just 10% of the heat produced by the EfW facility.

The scale of carbon emissions from the plant is significant when set in the context of Wiltshire's current carbon footprint. Using the University of Exeter's calculations for the facility's lifetime emissions (2,689 $ktCO_2$ over 25 years), these are equivalent to more than three times the annual industry and commercial emissions for Wiltshire (808 $ktCO_2$ in 2018, from BEIS local authority CO_2 data).

The Tyndall Centre has allocated a science-based target and carbon budget for Wiltshire based on an apportioned allocation from the UN Paris Agreement, amounting to 17,300 $ktCO_2$. This requires Wiltshire to reduce emissions year on year by 13.5% which will be much more difficult to achieve should this plant be built. The plant would use up 15.5% of Wiltshire's carbon budget over its lifetime.

In contrast, the sustainable energy strategy for the application that has approval (it was subsequently amended in 2018 but the technology and throughput remain the same) calculated that the ATT plant would be carbon-positive – to the tune of 2.5m tonnes CO_2 over its 20 year life span. Planning permission was granted on this basis.

Wiltshire is seeking to be carbon neutral by 2030, with the national policy target being 2050. New development should therefore look to be in accordance with these aims.

Wiltshire Council Drainage: No objection.

Wiltshire Council Ecology: No objection.

The application site lies within an existing industrial estate, set on a base of concrete and compacted stone. There is little natural vegetation other than around the very edges of the site. The proposals include some enhancements for biodiversity including habitat planting in spaces around the edges of this very constrained site. I am happy that the proposal will not result in any adverse effects to ecologically sensitive habitats or species and that some enhancement for biodiversity will result from the proposed works.

The site is an allocated waste site, included in the Development Plan Document for Wiltshire Waste Strategy and assessed for this usage under the Habitats Regulations at the DPD consultation stage. The proposed revision to the layout and design would not result in any mechanism for adverse effect on the favourable conservation status of any Natura 2000 site within the distances agreed with Natural England for adverse impacts from waste facilities. There is therefore no reason to revisit the Habitats Regulation Assessment in relation to the effects of this type of installation and the previous conclusion of "no likely significant effect" still stands.

The site does lie within one of the consultation zones for Greater Horseshoe bats associated with the Bath and Bradford on Avon Bats SAC, in this case centred around a summer roost site at Westbury Leigh. Within this consultation zone, proposals that include removal of vegetation potentially used by bats for either foraging or commuting, are required to undergo

Appropriate Assessment under the Habitats Regulations. The Ecological Survey Report by AD Ecology states that the site is located on an area of hardstanding on which a mosaic of ruderal vegetation has started to develop. However, the existing vegetation is of poor diversity, unlikely to support the number and diversity of invertebrate species on which bats feed. Removal of vegetation as indicated in the proposal will therefore not affect bat foraging or commuting and I am happy to record that the site is screened out of Appropriate Assessment because there is no mechanism for adverse effect. Furthermore, I am happy that the site will provide improved opportunities for bat foraging and commuting as a result of tree and shrub planting, which will contribute to primary connectivity in the wider landscape area.

Wiltshire Council Highways: No objection, subject to conditions.

The proposals …… have been considered by Wiltshire Council's Sustainable Transport Team, acting as Local Highway Authority, and recommend that the scheme is approved subject to planning conditions.

The site, being within the Northacre Trading Estate, is allocated in the Waste Site Allocations Local Plan 2013 as being suitable for strategic waste recovery, transfer, recycling and treatment uses, to which the application broadly complies. The site is also further subject to planning approval for an Energy from Waste plant granted in 2019 and it is against this precedent and policy position that the recommendation is made.

Application Scrutiny –

The initial highway response to the submitted Transport Assessment raised concern that the consideration of development at the site was predicated by the permitted use on the site and the delivery of committed development in the local area. When combined, any additional impact derived from the site would be proportionally reduced by an increased baseline comparison. Whilst the developers reasonably argue that the extant permission represents a 'back stop' development, the impact of the proposals should be considered without the extant permission to fully understand the implications of the proposals; the extant permission has been subsequently considered as a cumulative assessment. It is clear that local residents and stakeholders affected by the proposals, do not currently experience traffic generation from the extant permission and hence additional or reduced impact upon the extant permission has limited resonance. A subsequent revised Transport Assessment addressed this issue, illustrating in Table 18 that Brook Lane would experience the highest peak impact from the development, being just 2%; heavier trafficked roads have a lesser impact.

Notwithstanding the peak impact, it is acknowledged that the interpeak impact from the proposals will be greater than the peak impact. This is by virtue of lower baseline traffic flows and constant HGV flow; however, this impact would still be considered low and would not result in a material fluctuation of traffic flow and within the Institute of Environment Management and Assessment (IEMA) thresholds.

Further scrutiny was provided on other committed developments in the locality and whilst some concern is retained for the adequacy of information, there is precedent for the LHA previously accepting such information and the overall impact being limited.

Key to the assessment of the impact of traffic arising from the site, is the implementation of the conveyor transfer of Solid Recovered Fuel from the adjacent Mechanical Biological Treatment Plant. To ensure that traffic profiles are retained within the scope of the submitted assessment, it is important that this provision is secured by condition at the outset of the scheme operation.

Access to the site by non-car modes has also been raised. However, given previous permissions on the site and the necessary industrial location for the facility, there is a precedent for such proposals in less than ideal accessible locations.

Census data within the initial submission was found to have marginal inconsistencies, however the subsequent submission has provided an improved narrative around this issue.

The original traffic profile associated with the site was also modelled with a flat profile, which would require significant control and orchestration to achieve for deliveries from a multiple of sites across a wide area. To address this, the applicant has provided a comparable Energy from Waste site in the South East and adjusted the profile accordingly; limited impact from the revised profile has been indicated. Staff arrival and departure profiles have also been the subject of increased scrutiny.

Upon HGV routing, local concern has been raised for inappropriate usage of local roads by HGV's, when alternative routes are available and more appropriate. Particular concerns have been raised for the network in and around Southwick and North Bradley; concern is also raised for routing through Westbury, however the strategic positioning of the A350 through the town limits potential mitigation. Following further consideration, the applicant has assessed the localities whereupon refuse would be drawn, and it has been concluded that derivation from the A36 and A361 corridors would be limited. Notwithstanding this, such consideration does not take account of future waste facilities being developed along these corridors and hence a HGV routing plan is required by condition, to ensure that HGV impact is restricted to the routes assessed and that this may be appropriately scrutinised and enforced through an evidence base that may come from a number of sources. Similarly, Construction Traffic impacts are considered and to avoid impacts upon inappropriate areas, an appropriate Construction Traffic Routing Plan will be required.

The Local Highway Authority acknowledge the difficulties exhibited by parishes and villages along the A350 corridor and whilst planned improvements, such as the Yarnbrook and West Ashton Relief Road may ameliorate impacts such as that proposed by the incinerator, the A350 remains the strategic north south route for the region and the positioning of strategic infrastructure should be considered within this corridor in compliance with the Core Strategy.

With regards to on-site provision, the parking and cycling facilities are considered adequate, however no assessment of HGV tracking appears to have been undertaken and this will be required to ensure that the site can work as efficiently as proposed. Included within this exercise, should be an assessment of the access to the adjacent Mechanical Biological Treatment plant, including vertical access of HGV's up the 1:12 gradient ramp with appropriate transition curves.

In conclusion, the Local Highway Authority provided a robust and technically assertive response to the planning submission and the applicant has addressed each point raised in compliance with adopted policy and against precedent. In this regard, the Local Highway Authority recommend approval subject to the following conditions:

- *Construction Traffic Routing*
- *Construction Management Plan*
- *Operational HGV Routing*
- *Conveyor Operation*
- *Site Vehicle Tracking*
- *Parking Facilities*

Wiltshire Council Landscape: No objection

The principle of energy from waste on this site has been established by previous permissions granted for similar proposals.

The purpose of this application is some modifications to the permitted scheme to incorporate a change in the technology of the waste processing. This has resulted in some changes to the structure and arrangement of the buildings on site. The landscape proposals remain similar to the previous application. A Landscape and Visual Impact Assessment (LVIA), prepared in accordance with current best practice and published guidance, has been submitted as part of the Environmental Statement.

The LVIA has been informed by the LVIA submitted with the previous application 18/09473/WCM. The study area and viewpoints have been previously agreed. The site is not located in a designated landscape, it forms part of an employment area that links up to West Wilts Trading Estate in the north.

There will be minimal effects on landscape elements and local landscape character. The site is currently a vacant plot within an industrial estate surrounded by similar buildings and structures that already has an urban influence upon the neighbouring landscape. There will be a slight perceived increase in development due to the size of the proposed buildings and stack, this will be mitigated through landscape proposals, the composition and use of colour to break up the visual mass of the building. There will not be any significant or far reaching landscape effects as a result of the proposals.

In terms of visual effects only Viewpoint 1 (from the PROW to the west of the site) will experience any significant adverse visual effects largely due to proximity to the development. This is consistent with the conclusions of the previous LVIA. From many of the viewpoints the building, although 3.2m taller, appears smaller than the original layout due to the alternative arrangement and use of colour. The stack is still proposed to be 75m in height but slimmer in appearance. The difference in views is best illustrated by the photomontage viewpoints 1-4 where there is a direct comparison between the former and current schemes. The current proposal appears more compact and the stack obviously slighter in appearance. In viewpoint 2 you can see that the building is marginally taller than the previous design where it is viewed against the backdrop of Salisbury Plain scarp. In viewpoint 4 views from the White Horse appear similar to the approved scheme, with the milk factory drawing the eye but still only a small part of a very wide panorama.

The information regarding the stack plume modelling is interesting and I note that it is considered not to give rise to significant visual effects. When visible the plume will draw the eye to the stack like the old cement works chimney (considerably taller at approx. 122m) which was easy to pick out from Seend Ridge some 11.5 km distance.

The acknowledgement of a well-designed lighting scheme to minimise light pollution is welcomed.

I confirm that the landscape plan (dwg 2778-01-01) is an acceptable level of detail for the application.

Wiltshire Council Public Protection:

Noise and vibration – no objection; conditions recommended.

Public Health – no objection.

We have liaised with both Public Health England (PHE) and Wiltshire Council Public Protection team regarding the amended application and support their response. The application will be subject to a Environmental permit issued by the Environment Agency, this permit will ensure that the impacts from the combustion process are minimised and are compliant with UK air quality and emissions standards. We are satisfied along with Public Health England that the applicant has demonstrated that the proposed development can be carried out without any significant impact on health, subject to compliance with UK air quality and emission standards.

Air Quality – no objection; condition recommended.

I would confirm that clarification and comment was sought and obtained in connection with the applicants Air Quality Assessment with respect to the Local Air Quality Management framework and associated air quality regulations. They have provided modelling of a number of scenarios in different traffic contexts.

As you are aware an Air Quality Management Area has been declared in respect of exceedances of the annual mean objective for nitrogen dioxide on the A350 through Westbury town centre. Further information has been received from the applicant's consultant, which included data on PM_{10} and $PM_{2.5}$, as well as nitrogen dioxide. This data has been subjected to review by an independent third party. They have advised that they consider the conclusion that the proposed development would have a negligible cumulative effect to be supported by the evidence provided.

The holding objection in connection with Air Quality is withdrawn.

I note that that the planning statement says at 4.5.31:

"Notwithstanding these conclusions, and recognising Core Policy 55 seeks mitigation, it is proposed to mitigate any such negligible effects that might occur by way of a Travel Plan, which would encompass measures for car-sharing and the provision Ultra Low Energy Vehicle (ULEV) infrastructure in the scheme (i.e. electric vehicle charging points)."

This statement is welcome. Should the committee be minded to grant consent, EC&P would recommend a condition ….

<u>Public Health England</u> (requested by Wiltshire Council Public Protection) – No objection

Should the development take place the operation will also be regulated under the provisions of a permit issued by the Environment Agency (Environmental Permitting Regulations 2016). The associated conditions will require the operator to use the best available technology to ensure that impacts from the combustion process and ancillary waste handling activities site are minimised and are compliant with UK and EU air quality and emissions standards. PHE considered these standards to be protective of public health.

PHE Position Statement (Modern Municipal Waste Incinerators) –

PHE's risk assessment remains that modern, well run and regulated municipal waste incinerators are not a significant risk to public health. While it is not possible to rule out adverse health effects from these incinerators completely, any potential effect for people living close by is likely to be very small. This view is based on detailed assessments of the effects of air pollutants on health and on the fact that these incinerators make only a very small contribution to local concentrations of air pollutants.

As Environmental Permitting is the primary regulatory mechanism for municipal waste incinerators, PHE will formally consider the public health implications of the proposed

development as a consultee in the associated permitting process. For that reason we have limited our consideration at the planning stage to the principle of land use, a consideration of the Environmental Impact Assessment (EIA) approach adopted by the applicant and type and range of submitted assessments.

Changes from Previous Application

Structural - We note that there are some changes to the building design, layout and elevation height. The primary stack will now be of a reduced diameter and that the odour control stack will have increased in height by 3m (to 43m in total). We do not wish to comment on the visual amenity aspects of these changes and do not consider the amendments be significant to a public health risk assessment.

Throughput of Waste - There is an 83,000 tonnes per annum increase in the volume of imported waste. Whilst this is clearly relevant to the potential emissions from the process in terms of odour, flue gases etc. we note that these aspects would still be managed by the associated environmental permit and on that basis do not believe the increase in throughput poses a significant risk to public health.

Electricity Generation We do not believe this is likely to have any significant impact on our public health risk assessment.

Vehicle Movements

The net additional vehicle movements have increased for 56 to 78 (22 additional movements). Whilst this constitutes a 39% increase over the extant permission, we note the vehicular access routes also serve West Wiltshire Trading Estate. The area is home to a significant number of other large industrial / commercial operations including large warehousing and food manufacture operations. The primary vehicular access to the A350 in all cases is via the B3097. In this context we do not believe that the additional 22 daily movements are likely to be significant in public health terms.

Impacts during construction

As with any development there may be some localised short-term impacts during the construction phase of the project. We note however that such impacts can be adequately managed by normal control measures and the use of industry good practice. Should issues such as noise or dust impacts arise during construction the existing regulatory controls available to the local authority are considered adequate.

Air Quality

The applicant has modelled likely emissions from the site and considered the impact on local air quality. There are a number of sensitive receptors within 2km of the proposed plant including a powdered milk production facility, residential premises, commercial premises, recreation areas, schools and care homes. The submitted assessments have identified these receptors and assessed the impact of a range of emissions from the plant. No significant impacts have been identified in the documentation and PHE is satisfied that the applicant is utilising assessment criteria that are in line with UK guidance and good practice.

There is an Air Quality Management Area (AQMA) in Westbury, declared on the basis of nitrogen dioxide, but we note that the predominant source of NO2 in that area is vehicular traffic. The submitted assessments indicate that the additional contribution from either traffic associated with the proposed development or from stack emissions is likely to be small and consequently is unlikely to have a significant impact on public health. We note that Wiltshire

Council has the primary responsibility for managing the AQMA and would recommend that the planning authority consult internally with the appropriate team to confirm that they are happy with the proposals as submitted.

On the basis of the information submitted with the application PHE is satisfied that the development/process should be capable of operating within the requirements of current UK regulations, air quality standards and emissions standards. Detail of the regulatory control, emissions requirements and monitoring requirements will be considered in more detail as part of the environmental permitting process; however, on the basis of the information submitted to date PHE would be unable to sustain any objection to the development on the grounds of air quality.

Transport Impacts

PHE has only considered the impact of traffic on air quality and does not wish to comment on other matters such as noise although we note that as a result of the existing traffic burden the predicted increase in overall traffic levels as a result of both the construction and operational phases is predicted to be small. We are not able to assess the accuracy of the traffic predictions and should Wiltshire Highways department disagree with the applicants estimates we would be happy to reconsider this matter based on any new evidence.

Controlled Waters

The development/process is handling waste and consequently there is a potential for this to impact on the local environment and controlled waters. This matter is however better assessed by the Environment Agency and will be addressed by suitable permit conditions.

Noise

PHE does not provide comments on noise at the present time.

Conclusion

PHE is satisfied that the applicant has approached the environmental impact assessment in a manner consistent with the UK requirements. They have utilised a satisfactory approach and methodology to predict the likely emissions, distribution of a range of key pollutants and the impact on the local environment and receptors.

PHE will further consider the emissions and appropriate control measures when we are consulted as part of the Environmental Permitting process and will make additional comments at that time. We are however satisfied that the applicant has demonstrated that the proposed development can be carried out without any significant impact on health, subject to compliance with UK air quality and emission standards. For that reason, we do not wish to raise any objection to this planning application.

Environment Agency: No objection.

The planning and permitting systems are separate and distinct. An operator may build a facility once they have planning permission from the local authority, but they cannot start to operate it unless they have an environmental permit from us. Please note there are specific environmental constraints we can address through the planning regime. As part of both the planning and permitting process we cannot consider:

- *benefit to the local economy,*
- *location,*

- *visual impact,*
- *operating hours,*
- *traffic management to and from the site*

These matters are for the consideration of the local planning authority.

Additional comments -

This development will require a permit under the Environmental Permitting Regulations (England and Wales) 2016. The developer has had pre-application discussions with the Environment Agency and has submitted an application to us. Once we are satisfied the application is complete, we will start a public consultation. We consult Public Health England and seek their recommendations concerning public health. Only then will we determine if an environmental permit can or cannot be granted.

When the operator applies for an environmental permit from us, they must show us how they will minimise the risks to the environment and to human health. We consider whether the controls proposed are sufficient to meet the required standards set by current legislation. Legally, we have to work to these and cannot set alternative standards. We require operators to use the Best Available Techniques (BAT) to achieve these standards.

We will not issue a permit until the operator can show they can meet the required standards established by the EU Directive. These standards are designed to protect human health and the environment. We appreciate that some people may disagree with these standards and want us to take a more precautionary approach. We are unable to do this and have to adhere to the legislation as it stands.

We are only able to consider certain technical issues as part of the permit. Our consultation period is the public's opportunity to bring evidence to us, which they think we may not have seen or considered. The list below summaries which issues are covered by the permitting process and so are our responsibility to regulate,

- *emissions to air,*
- *pollution to surface and ground water,*
- *noise control,*
- *dust control,*
- *pest control,*
- *fire risk,*
- *odour control*

Natural England: No objection

Based on the plans submitted, Natural England considers that the proposed development will not have significant adverse impacts on statutorily protected nature conservation sites or landscapes.

Historic England: Do not wish to offer any comments; case to be left to local advisers.

MOD – Defence Infrastructure Organisation: No objection

The application site falls within the Statutory Safeguarding Aerodrome Height & Birdstrike Zones surrounding RAF Keevil. …… no safeguarding objections to this proposal.

8. Representations

The planning application has been publicised by local advertisement, site notice and letters to neighbours. This has generated 1972 representations (at 04/01/2021). Of these 1966 are objections (including from Andrew Murrison MD MP, CPRE West Wiltshire and the Green Party (Chippenham, Devizes & North Wiltshire and South West Wiltshire)), and 6 are supports.

The **objections** are summarised as follows:

- Planning policy –
  Proposal is incompatible with the Waste Hierarchy. Proposal should demonstrate why the waste proposed for incineration cannot be managed higher up the hierarchy; this is contrary to WCS5.
  The application fails to consider all alternatives, contrary to the EIA Regs.
- Climate change ('Climate Emergency') –
  Conflicts with WCs declaration to become carbon neutral. Objection from WC Climate Team.
  Conflicts with the Waste Hierarchy which seeks to reduce, reuse and recycle waste.
  Conflicts with WD1 & 2 which only permits development which avoids, compensates for, or mitigates against proposals contributing to climate change.
  Conventional / (old-fashioned) incineration of waste will actively discourage recycling.
  Correlation between high rates of incineration and low rates of recycling – recyclable waste should be removed from incinerator feedstock to reduce the need for incinerators; more incineration encourages less recycling; more incineration leads to more carbon output, with related financial penalties.
  Alternatives not fully considered – e.g. anaerobic digestion.
  Only possible justification for incineration of waste is through any reduction in carbon dioxide emissions. Whilst there are still gas fired power stations, waste incineration to generate electricity may be technically better in terms of emissions. But as gas fired power stations are phased out (as mandated by the Committee for Climate Change), so the benefits to CO2 reduction from waste incineration will reduce, to a point where there is no justification at all. Based on current CCC mandate, this gives the proposal a life of c. 14 yrs, which cannot be justified in terms of viability. Landfill gas emissions less relevant as much is captured rather than released to the environment, and these will reduce in any event as more restrictions/taxes are imposed on landfill.
  Changes in Government policy and legislation subsequent to the adoption WDC2 and approval of 18/03816/WCM, as well as more recent guidance from the Committee on Climate Change and others, have added weight to the importance of not allowing proposals which would have an adverse climate change impact and make it clearer that the consequence of refusal is unlikely to be waste being sent untreated to landfill but instead would be for waste to be treated in a manner that would result in a lower carbon impact than if it were to be treated at the proposed development.
  Comparing emissions from landfill with emissions from EfW is misleading. The applicant does not dispute the fact that biogenic carbon is sequestered in landfill, resulting in less biogenic CO2 being released by landfill when compared with incineration where all biogenic carbon is converted into CO2 which, without carbon capture, is immediately released into the atmosphere.
  Burning plastics gives off greenhouse gases – CO2e. Reducing plastic use, better recycling and even burying is better for the environment.
  Carbon capture does not form part of the applicant's revised proposal, and the applicant does not suggest any planning conditions to require the utilisation of carbon capture technology in the future.

250,000 tonnes of CO2e generated pa / 6 million tonnes of CO2e over 25 years. All existing solar farms in Wiltshire off-set just 238,000 tonnes.
Cleaning of flue gases generates 'Air Pollution Control Residue' which is hazardous waste, and which would be disposed of as landfill.
Energy recovery – no identified use for the heat generated by the proposal. Difficult to retrofit.
Carbon Capture technology – no identified method for current or future capture of carbon. This makes it an extremely inefficient EfW facility.
It cannot be assumed that electricity will be continuously generated.
Recently ruled by the Court of Appeal in ClientEarth, R (on the application of) v Secretary of State for BEIS & Anor [2021] EWCA Civ 43 (21 January 2021) that, when considering a proposed development, the adverse impacts of greenhouse gas emissions from that development can be given *"significant, or even decisive"* weight in the planning balance and are even capable of being *"treated as a freestanding reason for refusal"*

- Air quality / public health –
  Pollution from thermal treatment process and related HGV movements would cause health issues/risks to nearby/Westbury residents (particularly from small particles (<PM10) which cannot be fully filtered/cleaned). There is no clear guidance on what is safe/not safe – therefore, the precautionary principle should be applied. Decision on public health should not be left to other regulatory regimes – WC has a duty of care. Contrary to NPPF, Waste Regulations and EIA Regulations.
  Visible discharge from chimney. Plume will not disperse due to prevailing wind direction and geography; plume-grounding will occur, as was the case with the cement works. Application is inadequate in its consideration of the plume grounding issue;
  No indication of how emissions will be monitored.
  Bottom ash still needs disposal. It contains small particles which are danagerous to health.
  Comparison can be drawn to Covid where air quality and deprivation have been relevant to its spread.
  A number of specific health issues of particular residents mentioned.
  Not suitable site being next door to food processing plant.
  Potential dangers from transportation of hazardous chemicals.
  Proposal will need vigorous scrutiny by the Environment Agency through the Environmental Permitting process. Questionable whether the overall effect of incinerating 243,000 tonnes/yr of waste can have a 'negligible' impact. No one can say with 100% certainty that emissions will not have any effect on human health. Contrary to Core Policies 54 and 55;
- Traffic –
  Significant increases in HGV numbers (one every 5 minutes) travelling great distances (up to 2 hours) on inadequate local road system (in particular, through Westbury – the town has no by-pass). Increase in HGV numbers should be related to existing situation; not the permitted situation – the impact on existing traffic numbers is not 'imperceptible' (and is seriously questioned in one representation). Westbury not suitable to be a 'regional hub'; better locations elsewhere (e.g. adjacent to motorway junctions). Traffic numbers far greater than in previously approved schemes at the site.
  Additional pollution from HGVs in area where levels are already above acceptable levels, confirmed by the AQMA designation. Westbury under additional threat when Bath clean air zones take effect. Contrary to Core Policy 62.
  No consideration given to using rail links to transport waste;
- Noise –
  From additional HGVs. From operation of the plant – many close-by residential

properties. MBT plant occasionally produces unpleasant odours;

- Dust –
  From operation of the plant;
- Smell –
  Regular reports of other plants around the country like this producing unpleasant odours;
- Specific impact on adjacent Dairy –
  Proposal is contrary to Waste Allocations Local Plan as proposal will prejudice existing and commercial units at the industrial estate, and contrary to national policy as the dairy will have unreasonable restrictions placed on it as a consequence of the development. The Dairy has different and additional sensitivities to those assessed by the applicant, which has only looked in any detail at effects on human health and ecology. The Dairy, being involved in food production (of national significance in this regard) that uses very large amounts of clean air to make milk powder, raises issues associated with having to temporarily shut down its operations to avoid product tainting. These are either not considered at all or not considered sufficiently by the Proposal. The Waste Development Control DPD states that a precautionary principle should be applied when there is good reason to believe that harmful effects may occur to human, animal or plant health, or to the environment; and the level of scientific uncertainty about the consequences or likelihood of the risk is such that best available scientific advice cannot assess the risk with sufficient confidence to inform decision-making. The practical effect of this is, if in doubt, refuse.
  There is a very real likelihood that to approve the proposal will;
  1- Impose extra unspecified costs on the dairy in an attempt to address air quality and eliminate any risk of food tainting, the effectiveness of which is unknown.
  2 - Cause the Dairy to shut down, and/or suffer wasted product, particularly in the event of a forced closure of the energy from waste plant. The effect of which would be exacerbated by backup system failure, caused by technology and/or management issues.
  3- Damage the ability properly to deal with UK milk balancing requirements to cope with annual fluctuations with supply and milk production.
  4 - Raise issues for Arla in terms of the suitability of this Dairy for future business and employment investment.
- Flies –
  Potential for fly related nuisance;
- Local economy –
  Limited benefits to Westbury's economy. The benefits to the economy (from jobs and waste management) are far outweighed by the harm to the environment, health, amenity, etc.;
  Tourists visit Westbury to see White Horse, etc.. Views from White Horse would be harmed. Completely wrong location being close to residential areas;
- Visual amenity –
  Large and unattractive building/chimney (larger than the adjacent dairy) would be visually intrusive in both local and distant views. Poor design, which won't be improved by materials. Earlier application for smaller facility refused on visual impact grounds – that decision should set the bar. Cement works chimney only recently removed. 24hr operation will require lighting with likely spill/intrusion. Contrary to Core Policy 51;
- Ecology –
  Likely to be harmful to wildlife – water-based, bats, grasslands;
- Residential amenity –
  Harmful to amenity as a consequence of pollution, noise, smells, flies, hours of operation. Over-shadowing of nearby residential property. Contrary to Core Policy 42;

- Need –
  Many other incinerators already operating and/or with permission (Exeter, Avonmouth, Gloucester, Swindon). If need, can be justified, then why at Westbury? – only 20-40% of the waste processed would be from Wiltshire. We should be encouraging more waste reduction rather than incineration of more waste. Waste sources not identified;
  Correlation between high rates of incineration and low rates of recycling – recyclable waste should be removed from incinerator feedstock to reduce the need for incinerators.
  Not all waste will be from Wiltshire; insufficient waste in Wiltshire; electricity generation will not benefit Wiltshire. Contrary to WCS1 & WCS2;
  Technology on recycling moving very first, so further removing need for incinerators / EfW.
  Too many incinerators across the country now – UK is over-capacity;
- Flooding –
  Occurs in wider area;
- Safety –
  Inadequate details to re-assure that facility will be operated safely;
- Planning history –
  No good/justified reason given for not building the approved ATT facility;
- Application description –
  Notwithstanding the applicant's description, this is not an amendment to the ATT planning permission. The proposal is for a different type of development – a step backwards from gasification;
- Application process –
  Application should be independently examined by relevant experts. Insufficient consultation/publicity. Insufficient details with application. Insufficient consideration of alternatives in application.

Andrew Murrison MD MP objects for the following reasons –

I note that Wiltshire Council declared a climate emergency in February 2019 and hope that this application for an old-style incinerator delivering a new Westbury smoke stack to the doorsteps of my constituents will be judged against the environmental commitments the council has rightly given.

Northacre Renewable Energy gained permission for a gasification plant at Westbury last year stating that it was a greener alternative to other energy from waste technologies. The proposed switch to old style incineration is a financial expedient. It is based on a reliable, preferably increasing, stream of waste being trucked in from across the sub-region. It should be recognised that strategies higher up the waste hierarchy that would be far more useful in achieving the council's target for carbon neutrality - reduce, reuse, recycle – threaten incinerator viability since they reduce feedstock. Operators will be keen to ensure that their incinerator business model is not threatened.

Incineration is recognised as more polluting than gasification, producing more greenhouse gases and particles potentially harmful to health. The incineration residue, bottom ash, is a toxic, leachable burden on landfill. Northacre is unable to deny that its application to replace gasification with incineration would be a retrograde step in respect of key parameter - the threat to health, nuisance to the public and damage to the environment.

The application envisages processing more waste than the gasification plant for which NRE already has permission. This will mean more lorries blighting a part of Westbury that is already an Air Quality Management Area and that has limited prospects for a remediating

bypass in the foreseeable future. Had there been a western bypass the calculus may have been different. As it is and as the growing number of incinerators planned in the UK compete for waste, it seems likely that feedstock will be sourced from further afield and arrive in lorries that are less than full resulting in far more traffic along the A350 than NRE cites in its submission. The difficulty of remediating the AQMA without a bypass is acknowledged but Wiltshire Council must do nothing to make it worse, including by green-lighting a switch from gasification to old style incineration.

Finally, I note that NRE submitted its application for an Environmental Permit to the Environment Agency on 20 August in accordance with the suggestion led by the late Cllr Jerry Wickham to assist the council in its deliberations. The applicant presumably intends that the council should have the EA's analysis before it makes its planning decision which is welcome. Therefore, in my view, the council should defer its determination until the EA has finished its work, a position that presumably will be met with no objection by the applicant.

The Green Party (Chippenham, Devizes & North Wiltshire and South West Wiltshire) objects for the following reasons –

- Miscalculation of CO2 offset via electricity – The Carbon Assessment assumes that the development will replace some electricity generation from gas-fired power stations. But the UK Government 2050 net-zero target means that gas-fired power stations will hardly be used in 30 years. After 30 years when almost no electricity is being produced from gas, the incinerator cannot be saving anything over non-existent gas power-station emissions. Plus, the Assessment does not cover any district heating aspects of the incinerator. Shortly new homes will be required to be heated using low-carbon heat pumps, and so heating by incinerating waste would be worse. This means that the Assessment's figures for carbon off-set through electricity export are exaggerated over time.
- Incorrect calculation of landfill baseline – similar issues for landfill and related gas emissions, which will not remain static over the next 30 years.
- Contrary to Wiltshire Core Strategies as proposal not committed to low-carbon energy production.

CPRE West Wiltshire objects for the following reasons –

1. *Environmental Impact – the proposal does not include appropriate filtration and will pollute diminish the air quality of the surrounding region;*
2. *Increased HGV Traffic – flows through Westbury and nearby villages, including Southwick, North Bradley and West Ashton will increase by a high multiple on existing volumes, which are already high. This incinerator should not be considered before a suitable by-pass is in place.*

The **support** is summarised as follows –

- Energy from Waste is a good way to avoid landfill and/or the export of waste great distances/abroad;
- This is a trading estate, and so suitable for this type of development;
- Traffic issues are not specific to the incinerator and need addressing, but so does the waste issue;
- Will provide employment;
- People need to stop being NIMBY's and take responsibility for their waste.

9. Planning Issues

The main issues to be considered in this case are firstly the principle of the proposal (this in the context of the existing consent for an ATT facility *and* the site's allocation as both employment land and as a strategic waste site); and then, assuming the principle is accepted, the impact of the specific scheme on detailed matters, including climate change, traffic/highway safety, landscape/visual amenity, heritage assets, and residential amenity (including the effects of noise, odours, flies, emissions, etc.).

The Environmental Statement, together with any other information which is relevant to the decision, and any comments and representations made on it, must be taken into account by the local planning authority in deciding whether or not to grant permission for the proposed development.

9.1 Principle

9.1.1 Advanced Thermal Treatment vs Direct Combustion

On the issue of the principle of the development, it is material here that planning permission has already been given for an Energy from Waste operation at the application site, albeit in the form of an Advanced Thermal Treatment facility. The current proposal is to change this to a conventional, single line, moving grate combustion facility. Both the approved ATT facility and the proposed moving grate combustion facility are Energy from Waste (thermal treatment) processes in the 'Recovery' tier of the Waste Hierarchy (more on this below). As the 2019 planning permission remains extant, and as there have been no material and/or relevant changes to planning policy since the planning permission was granted, it must be treated as a lawful fallback position. However, the fallback position is given limited weight as a material consideration in the planning balance.

The ES summarises the differences between the 2019 planning permission and the current proposal in a table ('Table 4.1'), and this is pasted below –

Description of item / feature	**Northacre Facility as now Proposed**	**Scheme approved under the 2019 Permission**
Application Site area	2.88 hectares	2.74 hectares
Use	Residual waste treatment with energy recovery	Residual waste treatment with energy recovery
Technology	Single line, moving grate combustion	Gasification
Pre-treatment requirements	Not required – all residual waste would be pre-treated including via source segregation	Feedstock preparation
Throughput capacity	Circa 243,000 tpa	Circa 160,000 tpa
Gross electricity generation	28.6 MW	25.5 MW
Net electricity generation exported to grid	25.6 MW	19.5 MW
Number of UK domestic homes whose annual average electricity consumption requirements would be met	54,000	46,000
Primary Building Footprint	6,477m2	6,535m2
Finished floor levels	62m AoD	62m AoD
Maximum Building Height	40.0m	36.8m
Stack height	Main stack 75m (2.55m wide) Odour control stack 43m	Main stack 75m (4m wide) Odour control stack 40m

Main ancillary infrastructure	• Vehicle weighbridges and weighbridge office • Switchyard (Transformer and Substation) • Fire Tank and pump house • DNO control room • Tanks / silos (diesel/low sulphur fuel oil, ammonia hydroxide, FGT residues) • Internal roads and manoeuvring areas • Employee and visitor car and cycle parking • Fencing and gating • Service connections • Surface water drainage • Lighting and CCTV • Landscaping	• Vehicle weighbridges and weighbridge office • Switchyard (Transformer and Substation)) • Fire Tank and pump house • DNO control room • Tanks / silos (diesel/low sulphur fuel oil, ammonia hydroxide, FGT residues) • Internal roads and manoeuvring areas • Employee and visitor car and cycle parking • Fencing and gating • Service connections • Surface water drainage • Lighting and CCTV • Landscaping
Average daily HGV numbers servicing facility	78 movements	56 movements
Net Additional HGV numbers taking into account reduced movement to the Northacre RRC[1]	53 movements	42 movements
Employee numbers	40 permanent on-site jobs	40 permanent on-site jobs
Estimated capital cost	£200 million	£200 million

As is evident, the fundamental use for residual waste treatment with energy recovery has not changed in the current proposal. Likewise, the parameters of the built form (the buildings' footprints, maximum heights and infrastructure requirements) remain broadly similar in both the permitted scheme and the current proposal. Matters that have changed in the table – notably, the throughput capacity and the related HGV numbers – will be considered later in this report.

A number of representations to the application refer to direct combustion being an outdated and/or obsolete approach to waste management. This is not the case. Although direct combustion, or incineration, (and for that matter gasification and pyrolysis) has been used for many decades, it remains a relevant approach to dealing with waste, with the technology behind it now highly evolved and regulated (care of Best Available Technique requirements) to achieve high levels of efficiency, safety and environmental protection.

In addressing thermal treatment as the chosen approach, in its 'Alternatives' chapter the ES provides the following commentary –

Direct Combustion

Direct waste combustion in a modern thermal treatment EfW facility is a proven technology capable of delivering a flexible and sustainable waste management solution. EfW is used throughout the UK and Europe for the management of municipal / household waste, similar commercial and industrial wastes, and residual waste from such waste streams. The technology is, by a very significant margin, the most widely deployed waste recovery solution in Europe (with over 500 operating plants). An EfW facility would be capable of managing the requisite residual waste volume and would effectively treat the composition of the waste predicted to be managed at the facility. Given, the technology is well proven it is also

significantly less complex to fund. On this basis, the use of a modern EfW facility was considered to be the most appropriate waste recovery technology option currently available. …..

Moving Grate

This is the leading technology in the UK and Europe for the combustion of municipal and other similar wastes (including residual waste), being installed on circa 90% of UK incinerators and some 98% of European incinerators. It is a proven and developed design, with several suppliers available. The various designs are proven to achieve the burnout requirements for IED[3] compliance. For these reasons NREL selected this particular EfW technology.

Other representations also suggest that thermal treatment destroys material that should otherwise be recycled. The material for treatment is residual waste (that is, the waste which remains after re-use and recycling/composting operations have taken place) and so cannot be recycled. The alternative to thermal treatment in these circumstances is landfill; it follows that thermal treatment – particularly where energy from waste is an integral outcome of the process – is a better outcome. Elsewhere around the world the countries which recycle the most also incinerate to avoid landfilling.

The applicant's decision to move away from an Advanced Thermal Treatment (gasification) approach has been influenced by a number of factors. These are summarised in the ES as follows –

In relation to ATT, the investment decision, influenced largely by BREXIT, shifted away from gasification technologies with less stable supply chains which could no longer offer competitive solutions or guarantee build times required for this £200m investment. The supply chains for a tried and tested conventional moving grate combustion technology are more established, and better able to offer competitive solutions whilst guaranteeing build times in a post-BREXIT UK. Therefore, it was not just technology type, but the deliverability that influenced the investment decision.

This viability hurdle associated with scaled up ATT plants and the consequent limitation to the EPC contracting market, mean there are currently significant issues with securing funding for large scale gasification projects. Due to the combination of delivery and contracting / technical risks associated with the required technology scale up, reductions in available subsidy support and the associated issues with securing funding, NREL decided that ATT was unlikely to result in the delivery of a viable project and thus the use of an ATT technology has been discounted.

The investment decision, influenced largely by BREXIT, has shifted away from gasification technologies. The supply chains for a tried and tested conventional moving grate combustion technology are more established, and better able to offer competitive solutions whilst guaranteeing build times. Therefore, it was not just technology type, but the deliverability that influenced the investment decision in this application seeking to change the type of technology.

9.1.2 Strategic Planning Policy

[3] The Industrial Emissions Directive (IED) of the European Parliament on industrial emissions (integrated pollution prevention and control) is a European Directive which commits member states to control and reduce the impact of industrial emissions on the environment. The directive uses a 'polluter pays' principle to require industry to address emissions. It requires Best Available Techniques to be used to reach goals.

In relation to strategic planning policy, it is relevant to this that the proposal bridges two industrial sectors – that is, waste management and energy generation.

Energy / Renewable Energy Generation –

Core Policy 42 of the Wiltshire Core Strategy relates to standalone renewable energy installations. It states that proposals for standalone renewable energy schemes will be supported subject to satisfactory resolution of all site-specific constraints. In accordance with the NPPF, it adds that applicants will not be required to justify the overall need for renewable energy. The explanatory notes with the policy state that the policy applies to all types of standalone renewable energy, "…. *including wind turbines, biomass generators, anaerobic digestion plants and* ***other energy from waste technologies****, hydropower turbines, and ground mounted solar photovoltaic arrays*".

Waste Management –

Policy WCS1 ('The Need for Additional Waste Management Capacity & Self Sufficiency') of the Wiltshire & Swindon Waste Core Strategy 2009 states that over the plan period to 2026, Wiltshire and Swindon will address the issue of delivering sufficient sites to meet the needs of the municipal waste management strategies and sub-regional apportionments by providing and safeguarding a network of Site Allocations, this to manage the forecast increase in waste associated with the planned growth in the Strategically Significant Cities and Towns (SSCTs) of Swindon, Chippenham, Trowbridge and Salisbury. It further states that the need will be met locally whilst balancing the importation and exportation of waste within the principles of sustainable development and in accordance with the principles of sustainable transport.

Policy WCS2 ('Future Waste Site Locations') addresses, at a strategic level, how and where the need for the additional waste management capacity identified by Policy WCS1 will be met. The policy's explanatory notes set out two levels, or tiers, of waste management facilities – that is, those that are of a 'strategic' scale and those that are of a 'local' scale.

Strategic waste management facilities are defined as large and/or more specialist facilities that operate in a wider strategic manner by virtue of spatial scale, high tonnage of waste managed, specialist nature of the waste managed and/or a wider catchment area served. They are generally considered to include:

- Strategic materials recovery facilities (MRFs)
- Strategic composting facilities
- **Energy from waste facilities (EfW)**
- Mechanical biological treatment facilities (MBT)
- Landfill

The explanatory notes with the policy state that "*It will be expected that strategic facilities would serve either large areas within, or the entire Plan area. Additionally, they may also serve areas of Wiltshire and Swindon and surrounding local authorities in a more sub-regional context. Such sites will have characteristics that will prevent them from being accommodated on small and/or sensitive sites and locations …..*". The policy states that strategic waste site allocations will be located as close as practicable ("… within 16 km …") to the SSCTs of Swindon, Chippenham, Trowbridge and Salisbury.

In accordance with Policies WCS1 and WCS2 the Waste Site Allocations Local Plan 2013 allocates land/sites for waste uses. The Northacre Industrial Estate and some of the adjoining countryside, which lie approximately 6.5 km to the south of Trowbridge, are defined in the Allocations Local Plan as an area suitable for strategic scale "*materials recovery*

facility/waste transfer station, local recycling and waste treatment" type uses. The Waste Development Plans define 'waste treatment' as including Mechanical Biological Treatment, Anaerobic Digestion, Energy-from-Waste, and Combined Heat and Power facilities. In line with this, the industrial estate already supports the MBT plant, and there is the further extant planning permission for an energy from waste plant (an ATT facility) on this application site, both of which are / would be strategic scale waste treatment facilities.

In terms of Policy WCS2, the proposal in this application – which is for an alternative EfW facility – remains a strategic waste management facility. On the basis that strategic scale waste management facilities are acceptable in this industrial estate allocated as suitable for such facilities, the proposal complies with the requirements of these aspects of the Waste Core Strategy and the Waste Site Allocations Local Plan as a matter of principle. Additionally, as Policy WCS2 allows strategic facilities to serve 'large areas' (that is, areas within the Plan area or the entire Plan area *and* within surrounding local authorities "… in a more sub-regional context ….", the operation of the facility in this way would not conflict with the policy.

All of the above conclusions in respect of the principle are effectively confirmed by Policy WCS3 ('Preferred Locations of Waste Management Facilities by Type and the Provision of Flexibility') which, in setting out preferred locations for the different waste facility types, states that energy from waste facilities should preferably be located on 'industrial land / employment allocations' and 'site allocations and current waste management facilities'.

9.2 Waste Management Need

9.2.1 Waste Management Need

Earlier in the report quotes are taken from the applicant's Planning Statement setting out the 'need' justification for the proposed development. The quotes demonstrate through quantitative analysis by the leading advisers in this field that there is a 'capacity gap' between the present availability and capacity of facilities to manage residual waste and the actual quantities of residual waste to be managed, this in both Wiltshire and the wider sub-region combined.

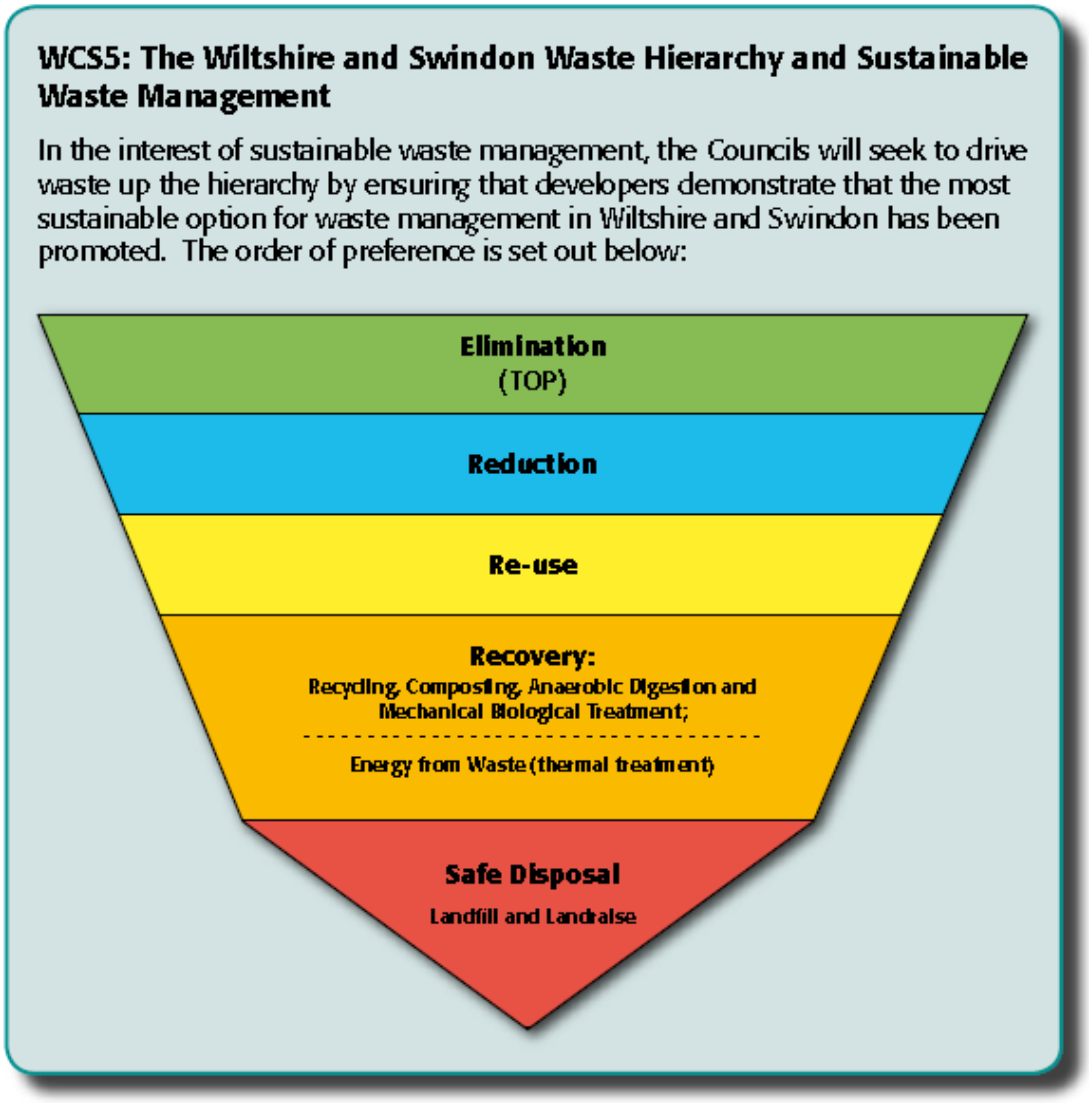
The research shows that within Wiltshire the total amount of residual waste requiring management is presently c. 273,000 tpa. Of this 60,000 tpa of household residual waste is processed at the Westbury MBT facility and a further 50,000 tpa is delivered to the Lakeside EfW facility at Slough, leaving 163,000 tpa outstanding. Further afield within the sub-region (which for viability reasons is defined as being within a 2hr drive of the application site), the research shows that there is a capacity gap of c. 470,000 tpa. When this sub-region is reduced to an 'inner' market (where EfW competition is more likely to favour the application site), the figure reduces to c. 130,000 tpa. It follows that the total inner market gap is presently c. 293,000 tpa. The proposal is for a throughput of up to 243,000 tpa, of which c. 52,000 tpa would be SRF produced at the adjoining MBT plant. It follows that there is a demonstrable need for a facility in this sub-region to manage its residual waste.

Looking at the wider national picture, and according to the applicant, in 2019 11 million tonnes (40%) of residual waste (suitable for energy recovery) was sent to landfill. In addition, 2.6 million tonnes of RDF (refuse derived fuel) was exported from England to EfWs in mainland Europe. This means that in 2019, the UK had an energy recovery (EfW) capacity gap of c. 13.6 million tonnes. According to the applicant, despite the general aspirations to drive waste up the Waste Hierarchy, the national capacity gap is anticipated to remain significant unless further waste management facilities, including EfW facilities, are delivered.

9.2.2 The Wiltshire and Swindon Waste Hierarchy

Policy WCS5 ('The Wiltshire and Swindon Waste Hierarchy and Sustainable Waste Management') of the Wiltshire & Swindon Waste Core Strategy provides an order of preference, or hierarchy, for waste disposal in the interests of sustainability. The purpose of the hierarchy is to bring to the fore the preference for 'elimination' over other forms of waste management; the hierarchy is not intended to bar all other forms of waste management. Presently energy from waste remains a relevant 'recovery' form of waste management which, in the hierarchy, is preferable to landfill and land-raise ('disposal').

The Waste Management Plan for England identifies 'incineration with energy recovery' as an 'other recovery' operation, alongside anaerobic digestion, gasification and pyrolysis which produce energy (fuels, heat and power). Similarly, the adopted Wiltshire and Swindon Waste Core Strategy (Policy WCS5) identifies EfW (thermal treatment) as 'recovery', as shown below. The Waste Core Strategy does not require energy from waste proposals to achieve a specific energy efficiency threshold in order to be classified as recovery operations.



9.3 Renewable Energy Need and Climate Change

9.3.1 The evolving climate policy position -

The Planning and Compulsory Purchase Act 2004 requires local planning authorities to include in their Local Plans "*policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change*".

The Climate Change Act 2008 established a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050 from 1990 levels. In 2019 the target was changed to bring all greenhouse gas emissions to 'net zero' by 2050. Net zero, or carbon zero, means any emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage (CCS).

Notably the Climate Change Act 2008 requires the government:

- to assess regularly the risks to the UK of the current and predicted impact of climate change;
- to set out its climate change adaptation objectives; and
- to set out its proposals and policies for meeting these objectives.

Current government guidance sets out examples for mitigating climate change through reducing emissions; these are (emphasis added) –

- *Reducing the need to travel and providing for sustainable transport*
- ***Providing opportunities for renewable and low carbon energy technologies***
- ***Providing opportunities for decentralised energy[4] and heating***
- *Promoting low carbon design approaches to reduce energy consumption in buildings, such as passive solar design*

The government is advised on climate change matters by the Climate Change Committee (CCC) which is an independent, statutory body established under the Climate Change Act. It advises on emissions targets and reports annually to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change. Its latest reports from June and December 2020 are discussed below.

In 2013 (revised 2014), DEFRA published its report 'Energy from Waste – A Guide to the Debate', to aid discussion and general understanding of the role EfW has in residual waste management. The report's overview includes the following statement –

Energy from waste is not just about waste management.

- ***The energy it produces is a valuable domestic energy source contributing to energy security.***
- ***As a partially renewable energy source it can also contribute to our renewable energy targets which are aimed at decarbonising energy generation.***
- *It has the added advantage that it is non-intermittent, so it can complement other renewable energy sources such as wind or solar.*

[4] Decentralised Energy broadly refers to energy that is generated off the main grid, including micro-renewables, heating and cooling. It can refer to energy from waste plants, combined heat and power, district heating and cooling, as well as geothermal, biomass or solar energy.

The report further states the following:

"***The Government sees a long-term role for energy from waste both as a waste management tool and as a source of energy****…"*;

"Energy from the biogenic part of mixed residual waste is seen as one of a number of technologies that either have the greatest potential to help the UK meet the 2020 target in a cost effective and sustainable way, or offer great potential for the decades that follow.";

"Increased prevention, reuse and recycling, does not necessarily mean less waste feedstock for energy recovery. There is a large amount of potentially combustible residual waste still going to landfill that could be utilised in energy recovery. ***The Government considers there is potential room for growth in both recycling and energy recovery – at the expense of landfill****".*

In 2018, the Government published a waste strategy – 'Our Waste, Our Resources: A Strategy for England'. The strategy seeks to redress the balance in favour of the natural world as part of a goal to move to a more circular economy which keeps resources in use for longer. On managing waste, the strategy seeks to ensure that as much material as possible is captured, to ensure high levels of quality recyclable or composting material whilst aiming to maximise the efficiency from EfW facilities. The strategy states, *"…we will work closely with industry to secure a substantial increase in the number of EfW plants that are formally recognised as achieving recovery status, and we will ensure that all future EfW plants achieve recovery status".*

The National Planning Policy Framework (NPPF) (February 2019) sets out central government planning policy, and is informed by other legislation and policy, including that referred to above. On climate change the NPPF states that the planning system should support the transition to a low carbon future in a changing climate; and help to shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience, *and* support reuse of existing resources.

On plan making, the NPPF states that to help the use and supply of renewable and low carbon energy and heat, plans should (para 151 – emphasis added) –

(a) ***Provide a positive strategy for energy from these sources****, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);*
(b) ***Consider identifying suitable areas for renewable and low carbon energy sources****, and supporting infrastructure, where this would help secure their development; and*
(c) Identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

And on decision-making the NPPF states that in determining planning applications local planning authorities should expect new development to (para. 153) –

(a) ***Comply with any development plan policies on local requirements for decentralised energy supply*** *unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and*
(b) *Take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.*

The Wiltshire Core Strategy, although adopted in 2015, was drafted and latterly adopted with regard to the above policies (where existing at the time) and principles. As already set out at section 9.2.1 of this report, Core Policy 42 relating to standalone renewable energy installations states that proposals for standalone renewable energy schemes will be supported subject to satisfactory resolution of all site-specific constraints. The policy applies to all types of standalone renewable energy including energy from waste technologies.

As also set out in section 9.2.1 of this report, in accordance with Policies WCS1 and WCS2 of the Wiltshire & Swindon Waste Core Strategy 2009, the Waste Site Allocations Local Plan 2013 allocates land/sites for waste uses. The Northacre Industrial Estate and some of the adjoining countryside are defined in the Allocations Local Plan as an area suitable for strategic scale "*materials recovery facility/waste transfer station, local recycling and waste treatment*" type uses. The Waste Development Plans define 'waste treatment' as including Energy-from-Waste facilities.

In February 2019 Wiltshire Council resolved to make Wiltshire carbon neutral by 2030. Much has been done already on Wiltshire's path to carbon neutrality. 'Headlines' reported in July 2020 included, in 2019/20, the Council sending 16% of waste collected to landfill, compared with 20% in 2014/15. The majority of non-recyclable household waste collected in Wiltshire is processed for energy recovery (EfW).

9.3.2 Looking to the future -

The Government's adviser on emissions targets and on preparing for and adapting to the impacts of climate change is the Climate Change Committee. It provides regular reports to Parliament, setting out progress being made towards the carbon zero target, and proposals to be considered to progress further.

The June 2020 and December 2020 CCC reports provide perhaps the most up to date indication of the direction of travel for future climate change policy. The June report (titled 'Reducing UK Emissions - Progress Report to Parliament') includes the following statements (with emphasis added) for the waste and energy sectors. At this point in time the report's recommendations have not been transposed into policy or law –

Chapter 6: What is needed now? – UK Climate Policy

…….

d) Delivering low-carbon land use and reducing waste by strengthening the Agriculture and Environment Bills - recommendations for Defra and devolved counterparts in Scotland, Wales and Northern Ireland, supported by BEIS and HMT

***Achieving significant emission reductions in the waste sector requires a step-change towards a circular economy, moving away from landfill and incineration (and the associated methane and fossil CO_2 emissions)**, and towards a reduction in waste arisings and collection of separated valuable resources for re-use and recycling. This applies at local, regional and national levels. Wales is setting a leading example in the UK, but there are also several decades of experience in a number of other countries (e.g. Germany, Austria, South Korea) to draw upon.*

- *The transition to universal collection of separated food waste, garden wastes and other recycling across England planned in the Environment Bill should be significantly accelerated and rolled out over 2022-2024 (instead of over 2023-2035), so that all regions of the UK can legislate this year to ban both municipal and non-municipal biodegradable wastes from landfill by 2025. Local authorities and private*

waste management firms need to urgently invest in collection infrastructure and new recycling, composting and anaerobic digestion facilities. There must be sufficient treatment capacity made available before the landfill ban for biodegradable wastes comes into force, so that increases in incineration or exports are avoided.

- *Achieving a 70% recycling rate at the latest by 2030 in England (with this target to be included in the Environment Bill) and in Northern Ireland, and by 2025 as already proposed in Wales and Scotland, will be key to phasing out waste exports and limiting fossil emissions from energy from waste plants. Defra should also plan how waste reduction and higher recycling rates will impact the utilisation of (and need for further) energy from waste plants, and via a set of guidance notes, help align local authority waste contracts and planning policy to these findings.*
- ***Fossil emissions from energy from waste plants are growing rapidly (currently at 6.8 $MtCO_2e$/yr), and will continue to do so in the near term. Once built, the main emissions mitigation option from these plants will likely be CCS, even at modest plant scales. When regional CO_2 infrastructure becomes available, operational plants above a certain scale should be incentivised or required to retrofit CO_2 capture. New plants (and plant expansions) above a certain scale should only be constructed in areas confirmed to soon have CO_2 infrastructure available and should be built 'CCS ready' or with CCS.*** *These retrofit dates and capacity thresholds should ~~to~~ be set as part of the UK's new Bioenergy Strategy and aligned with BEIS' CCS infrastructure plans.*
- *Mandatory business food waste reporting would help achieve reductions in food waste, building on the current voluntary approach, alongside reductions in household food waste. The UK achieving its Courtauld 2025 targets and the UN's Sustainable Development Goal 12.3 (halving per capita food waste by 2030) could also free up more UK land.*
- ***Local councils should be carefully considering the fossil emissions from waste to energy plants, and how these plants will retrofit CCS in the future, plus the impact of waste reductions and improved recycling.***

…….

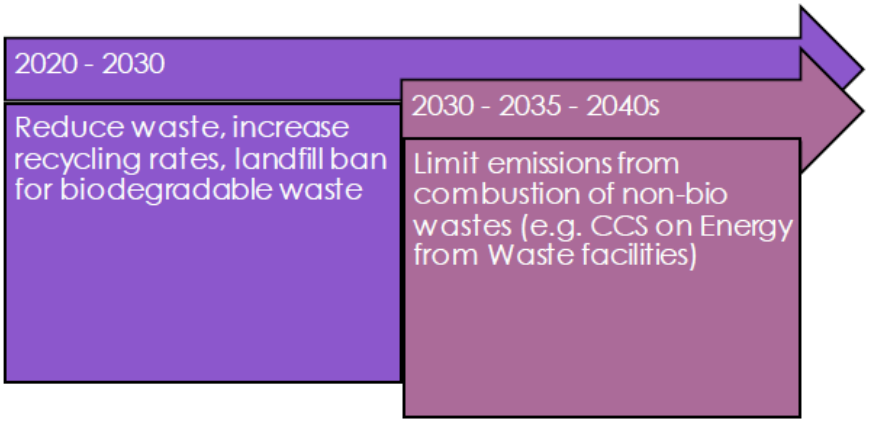
The December 2020 CCC report (titled 'Local Authorities and the Sixth Carbon Budget[5]') includes the following statements relating to waste (emphasis added), again not transposed into formal policy or law at this time –

Emissions from waste were 27 MtCO2e in 2019, 5% of total UK greenhouse gases. 70% of emissions from the waste sector in 2018 were methane from the decomposition of biodegradable waste in landfill. Waste emissions have fallen 46% between 2008 and 2018 due to reductions in landfilling of waste.

More local authority waste is now incinerated for energy than recycled or composted in England. In 2018 there were 6.8 MtCO2e/year of emissions arising from the use of waste for power and heat (mostly energy from waste incineration plants), a doubling in emissions since 2013. Plants under construction and those granted planning permission could add a further 10 MtCO2e/year.

[5] A 'carbon budget' places a legally binding restriction on the total amount of greenhouse gases the UK can emit over a 5-year period, in accordance with the Climate Change Act The Sixth Carbon Budget will set out the volume of greenhouse gases the UK can emit during the period 2033-2037.

Box 3.19
What needs to happen to deliver the sixth carbon budget and be on track for Net Zero?



A) What needs to happen to deliver the sixth carbon budget and be on track for Net Zero?

The CCC's recommended Sixth Carbon Budget pathway sees a reduction in waste due to improvements in recycling, a phase-out of biogenic waste going to landfill and carbon capture and storage installed on both new and existing energy-from-waste facilities. In particular:

- *Reductions in waste and ramping up recycling rates. Recycling rates (recycling, anaerobic digestion (AD) and composting) need to rise to 70% across UK by 2030 (and by 2025 in Scotland and Wales). Total waste arisings should be reduced by up to 33% by 2037 from baseline projections, through improved product design, light-weighting & standards, asset sharing & repair, deposit return schemes and extended producer responsibilities. Household edible food waste should be reduced by 50% by 2030 (reaching 46kg per person) and 60% by 2050, compared to 2007 levels, and similar % reduction targets should be achieved by the commercial food sector.*
- ***Phase out wastes sent to landfill and improve landfill management. Sending biodegradable waste to landfill should be banned by 2025, with a significant ramp-up in recycling, AD and composting. A complete ban on sending all waste to landfill should be considered by 2040, provided sufficient treatment facilities are available (and not just additional incineration). Further action is required to reduce landfill methane emissions, through methane capture and oxidation.***
- *Improvements to reduce emissions from wastewater treatment need to start in the early 2020s, in order to reduce emissions by at least 20% by 2030. This is a role for the water utilities and Ofwat.*
- *GHG* [greenhouse gas] *emissions from compost should be reduced by over 20% by 2030, and this can be achieved by approximately a third of composting facilities installing forced aeration technology. Local authorities should send more garden waste to compost (with this service provided free to households).*
- ***Carbon Capture and Storage is needed to ensure that Energy from Waste facilities are close to zero carbon by 2050, starting with those in industrial clusters, and over time reaching smaller facilities further from CO2 storage locations. Incineration and other forms of power/heat generation from waste will increasingly become the final step on the waste hierarchy, only used after***

materials have been recycled several times. In the CCC's scenarios, by 2050 all EFW plants have fitted with CCS starting from the 2030s.

- *Co-benefits: food cost savings for residents and businesses, health benefits of diet and meal planning, reduced food poverty and cost savings for collection authorities. Emissions reduction, efficiency and increased competitiveness for UK industries using recycled rather than raw materials.*

Although strictly only relevant to higher capacity energy from waste facilities (that is, over 50MW), The National Policy Statement[6] for Renewable Energy Infrastructure ('EN-3'[7]) states the following -

The recovery of energy from the combustion of waste, where in accordance with the waste hierarchy, will play an increasingly important role in meeting the UK's energy needs*. Where the waste burned is deemed renewable, this can also contribute to meeting the UK's renewable energy targets. Further,* ***the recovery of energy from the combustion of waste forms an important element of waste management strategies in both England and Wales****. ….*

Although this NPS is dated 2011, it remains relevant policy, this confirmed by the December 2020 Energy White Paper ('Powering Our Net Zero Future'). The White Paper states that, until reviewed, "**the current suite of NPS remain relevant government policy and have effect for the purposes of the Planning Act 2008**".

9.3.3 'Carbon Assessment' of the proposal –

The application is accompanied by a Carbon Assessment which calculates the relative carbon impact of processing waste in the facility compared to disposal as landfill (which at this point in time remains the most likely alternative). The calculations take account of both the burdens and benefits to carbon emissions. The burdens are the carbon dioxide released from the combustion of fossil-fuel derived carbon in the facility, the release of other greenhouse gases from the combustion of waste, the combustion of gas oil in auxiliary burners, and the carbon dioxide emissions from the transport of waste and residues. The benefits are the export of electricity (displacing emissions from other power stations), and the removal of carbon emissions by not sending the same waste to landfill (the emissions being escaping gas (methane) not 'captured', and the offset from the generation of electricity from captured gas).

The results of the calculations are set out in the following table taken from the Carbon Assessment[8] –

[6] National policy statements set out the planning policy framework for nationally significant infrastructure, including energy and transport. They are produced by Central Government and comprise the government's objectives for the development of nationally significant infrastructure in a particular sector.

[7] EN-3 para 1.2.3 indicates: *…this NPS is likely to be a material consideration in decision making on relevant applications that fall under the Town and Country Planning Act 1990 (as amended). Whether, and to what extent, this NPS is a material consideration will be judged on a case by case basis.*

[8] The proposed facility will also process up to 52,000 tpa of SRF transferred from the adjacent MBT facility, which is otherwise exported to mainland Europe. The facility will, therefore, displace an additional 2,500tpa of CO2 presently associated with the transport of the SRF. This carbon benefit is not included within the Assessment, indicating a degree of conservatism in the analysis.

Parameter	Units	Northacre Facility – Base case
Releases from landfill gas	t CO_2e	108,187
Transport of waste and outputs to landfill	t CO_2e	2,267
Offset of grid electricity from landfill gas engines	t CO_2e	-14,540
Total landfill emissions	**t CO_2e**	**95,914**
Emissions from the Facility	t CO_2e	104,550
Transport of waste to and outputs from the Facility	t CO_2e	3,118
Offset of grid electricity with Facility generation	t CO_2e	-70,439
Total Facility Emissions	**t CO_2e**	**37,229**
Net Benefit of the Facility	**t CO_2e**	**58,684**

Based on the Carbon Assessment's calculations there would evidently be – according to the applicant – a net reduction in greenhouse gas emissions of 58,684 tonnes[9] of CO2 / equivalent (CO2e) per annum compared to the landfill counterfactual. Reading this 'glass half full', the relative reduction in CO2e emissions is a betterment; reading this 'glass half empty' the CO2e emissions, albeit reduced in relative terms, are not carbon neutral.

On behalf of the local planning authority the Carbon Assessment has been independently examined by University of Exeter. The examination has resulted in disagreement with the applicant on a number of variables used to reach the 'base case' figures set out in the table. In summary, the independent examination assumes higher CO2e emissions whereas the applicant maintains his position.

In view of the outcomes of the independent examination, the Wiltshire Council Climate Team raises objection to the planning application on climate change grounds. Key statements in the objection are as follows –

The scale of carbon emissions from the plant is significant when set in the context of Wiltshire's current carbon footprint. Using the University of Exeter's calculations for the facility's lifetime emissions (2,689 $ktCO_2$ over 25 years), these are equivalent to more than three times the annual industry and commercial emissions for Wiltshire (808 $ktCO_2$ in 2018, from BEIS local authority CO_2 data).

The Tyndall Centre has allocated a science-based target and carbon budget for Wiltshire based on an apportioned allocation from the UN Paris Agreement, amounting to 17,300 $ktCO_2$. This requires Wiltshire to reduce emissions year on year by 13.5% which will be much more difficult to achieve should this plant be built. The plant would use up 15.5% of Wiltshire's carbon budget over its lifetime.

In contrast, the sustainable energy strategy for the application that has approval (it was subsequently amended in 2018 but the technology and throughput remain the same) calculated that the ATT plant would be carbon-positive – to the tune of 2.5m tonnes CO_2 over its 20 year life span. Planning permission was granted on this basis.

[9] The Carbon Assessment also applies a sensitivity test to the calculations to allow for different grid displacement factors (that is, different ways in which displaced electricity may be generated) and different landfill gas recovery rates. This provides a net reduction of emissions within a range of c. 23,000 and c. 113,000 tonnes of CO2e emissions per annum.

Wiltshire is seeking to be carbon neutral by 2030, with the national policy target being 2050. New development should therefore look to be in accordance with these aims.

Either way on the different emissions base case presented by the applicant and in the independent review, bench-marking the outcomes of the Carbon Assessment against the present planning policy position as set out above – in particular, the Wiltshire Core Strategies, the NPPF, the national waste strategy ('Our Waste, Our Resources: A Strategy for England'), and the National Policy Statement for Renewable Energy Infrastructure – the proposal is compliant. Specifically, the proposal is for a combined waste management facility and source of decentralised energy generation on land which is allocated for these purposes. Fundamentally, whilst in general EfW facilties are not in themselves carbon neutral or carbon zero, they do fulfil two acceptable purposes at this time – energy generation *and* management of residual waste for which the only other option is presently landfill; whatever the base case on the CO2e emissions, landfill is demonstrably bad from a climate change and environmental perspective, and EfW remains an acceptable Recovery process in terms of current planning policy and the Waste Hierarchy.

On the question of what weight should be given to emerging climate change policy relative to planning policy(?), the local planning authority has obtained an external legal opinion. The opinion in its entirety (covering other matters as well as this question) is set out as a background paper to this report, at appendix 6. The following box sets out an extract relevant to this question –

What weight should be given to evolving climate change policy (which is less supportive of carbon-generating EfW developments) relative to both national and local planning policies (which are more supportive of carbon generating EfW developments, at least at this time)?

10. *I must start by observing the trite position that weight is for the decision-maker. That said, it will be expected that adopted policy is likely to be worthy of greater weight than emerging policy. This is particularly so where different strands of public policy are concerned. It is apparent, I hope, that how the aims and aspirations of one policy arena are transposed into effect in another arena of policy is, itself, a matter of policy. Thus, it cannot be seen, precisely, how developing climate change policy will manifest in planning policy until such time as (a) it has itself been adopted and (b) it has been incorporated into planning policy, first at a national level and then at a development plan level.*

11. *In these circumstances, it is quite unimpeachable for the officer* [decision maker] *to ascribe greater weight to what the adopted national and local planning policies actually say on EfWs, waste treatment and low carbon energy than what might be deduced or gleaned from emerging advice to/thoughts of Government on climate change.*

The University of Exeter independent examination also considers ways in which the proposed facility may be able to reduce CO2 emissions further in any event. On this it states the following -

Wiltshire Council is seeking to achieve net zero carbon by 2030. The Assessment states that "energy from waste will play a key role in UK power generation and achieving a net-zero carbon future". Ways in which the proposed Northacre facility may be able to reduce CO_2 emissions include:

1. *Reducing fossil inputs in the waste stream it is treating*
2. *Improving overall efficiency by exporting very significant quantities of useful heat*
3. *Providing a design, connections and land for installation of carbon capture and storage technology*

In response to 1, the applicant has confirmed that the facility will process residual waste which is assumed to have been pre-processed off-site to remove recyclates, including dense plastics and metals, in any event.

In response to 2, the applicant has confirmed that the Facility will have the capacity to export heat and that the Applicant is currently engaging with local heat users to evaluate the potential for activating at least some of this. The Applicant is already committed to exporting electricity.

On the third point, and looking to the future, the latest Climate Change Committee's progress reports envisage the continuing move towards a more circular economy with less landfill and less incineration, although not 'no' incineration. Where the incineration, or thermal treatment of waste, already exists and/or must continue, the CCC sees carbon capture and storage (CCS) as a critical step forward (CCS "…. *is a necessity, not an option, for the UK's net-zero objectives*"). On this specific point, the Carbon Assessment acknowledges that carbon emissions from low-carbon technologies have the potential to be captured through CCS. The assessment states –

…. Although CCS technologies are still being developed and are currently not economically or technically feasible for application in large-scale EfW projects, EfW plants may have the potential to incorporate these systems in the future.

It is acknowledged that low carbon technologies will need to continue minimising carbon releases, which will take time, legislative intervention and investment. It is considered that the Facility will lie within a framework where a positive contribution can be made towards achieving climate change objectives and where a transition can be made towards meeting net zero targets over time.

The future cannot be assumed with certainty. But in the event of the CCC recommendations becoming future policy and/or legislation, then technology will inevitably evolve, and – it can reasonably be assumed – that the development proposed here will adapt. Any future change to policy/legislation and any related requirement for adaptation are not matters relevant to the determination of a planning policy compliant planning application now. They are likely to be matters regulated by other processes, such as the Environmental Permit which would be subject to review and renewal from time to time anyway.

This said, as the generation of electricty is a key climate change benefit arising from the proposed development, it is considered reasonable that this must be required to happen. Accordingly, a condition is recommended to allign commencement of generation and export with commencement of the thermal treatment of waste.

9.3.4 Wiltshire Council's resolution to make Wiltshire 'Carbon Neutral' -

The legal opinion, again, provides helpful guidance in answering the question, how does existing policy fit with Wiltshire Council's stated aim to deal with the climate emergency when the issue has not as yet been included in a development plan document? The relevant part of the opinion (in full at appendix 6) is set out in the following box –

How existing policy fits with the stated aim to deal with the climate change emergency when these issues have not as yet been included in a Development Plan document as the current Development Plan was adopted in 2015?
12. Existing policy (as relevant for present purposes) fits with climate change issues by virtue of the fact that energy recovery from residual waste is part of the suite of initiatives encouraged in

order to 'de-carbonise' energy compared to the burning of fossil fuels and to treat residual waste that would (by definition) be going for disposal to landfill.

13. *While a proportion of the feedstock will itself be fossil-carbon derived, it is 'waste' fossil carbon, that needs to be managed, rather than 'virgin' fossil carbon, mined or extracted for the purpose of energy-generation. As such, it already exists in the 'above ground' carbon equation and, rather than being disposed of, it can beneficially be used to displace energy derived from conventional fossil fuels.*

14. *From my experience in the energy and waste sectors, I am aware of certain objectors to EfWs arguing, on a carbon basis, that it would be better to 'sequester' the fossil-derived carbon in residual waste by burying it – ie disposing of it to landfill – rather than releasing it to the atmosphere as CO2. Whatever the merits of that argument (with which I do not here engage), that is not current Government policy. Rather, for climate change reasons and waste management reasons, Government policy is to move to zero landfill, and EfW treatment of residual waste to recover energy from that waste is part of the armoury of measures which are to be deployed. EfW is, for planning policy purposes, a 'low carbon' energy source, even if it is not a 'no carbon' energy source and, so, is encouraged as part of the moves to tackle the 'climate change emergency'.*

15. *The current development plan reflects that position by providing opportunities for EfWs, as at the application site.*

9.4 Landscape / Visual Impact

9.4.1 Policy background –

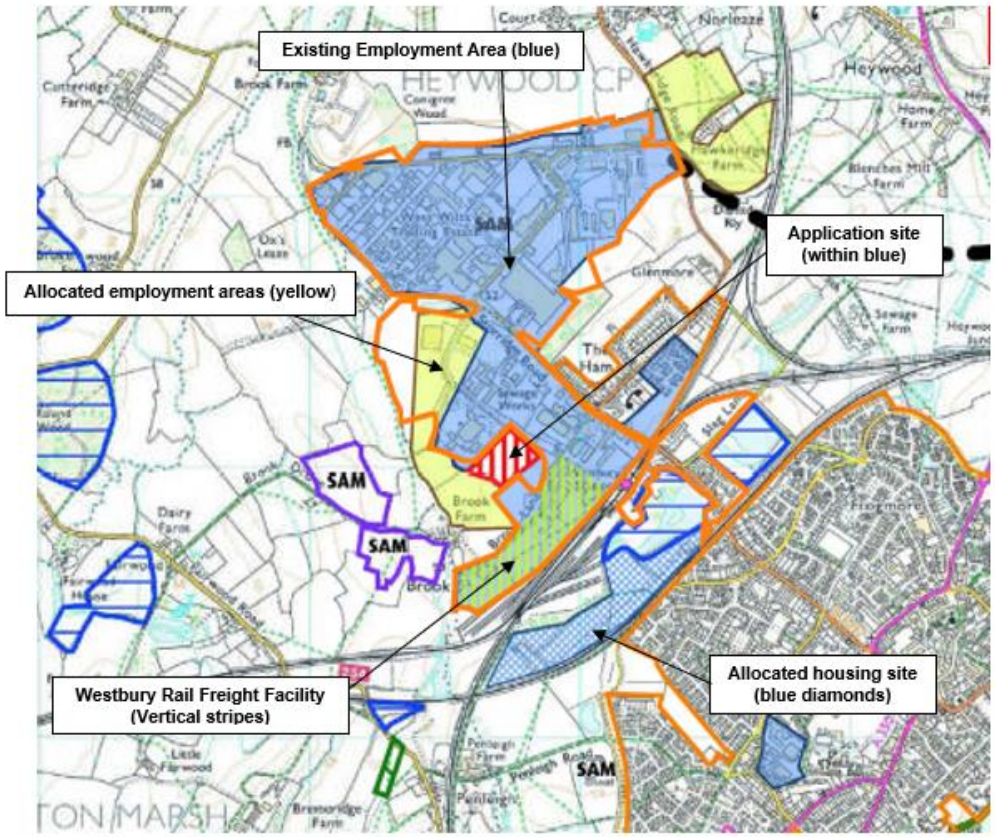
Core Policy 51 ('Landscape') of the WCS re-states that new development should protect, conserve and where possible enhance landscape character, with any negative impacts mitigated as far as possible through sensitive design. The policy states that proposals should be informed by and be sympathetic to the distinctive character areas identified in the relevant Landscape Character Assessment(s) and any other relevant assessments and studies; and proposals will need to demonstrate that the following matters in particular have been taken into account and landscape conserved and enhanced as appropriate:

- The separate identity of settlements and the transition between man-made and natural landscapes;
- Visually sensitive skylines, soils, geological and topographical features;
- Landscape features of cultural, historic and heritage value;
- Important views and visual amenity;
- Tranquillity and the need to protect against intrusion from light pollution, noise and motion; and
- Landscape functions including places to live, work, relax and recreate.

The Wiltshire and Swindon Waste Development Control Policies DPD Policy WDC7 (Conserving Landscape Character) further requires proposals for waste management development to include an assessment of the adverse impacts on the landscape character, this informed by the Wiltshire Landscape Character Assessments. The policy states that proposals for waste management development should include appropriate provisions to protect and where possible enhance the quality and character of the countryside and landscape, and proposals in proximity to settlements must safeguard their character, setting and rural amenity through the implementation of mitigation measures that incorporate an acceptable separation distance, landscaping and planting, appropriate to the existing landscape setting.

Core Policy 57 ('Ensuring high quality design and Place Shaping') of the Wiltshire Core Strategy provides more general development control standards, requiring new development to, in particular, respond positively to existing townscape and landscape features in terms of building layouts, built form, height, mass, scale, building lines, etc., to effectively integrate development into its setting. It also requires the retention and enhancement of existing important landscaping and natural features, including trees, hedgerows and watercourses.

Meanwhile, Core Policy 35 ('Existing Employment Sites') seeks to retain the defined Principal Employment Areas in employment uses, and supports renewal and intensification of employment uses thereon; and Core Policy 32 ('Spatial Strategy for the Westbury Community Area') allocates 3.8 ha of new employment land at Northacre Industrial Estate on land to its west side (that is, adjacent to the application site). These designations are illustrated on the following plan contained within the Landscape and Visual Impact Assessment (LVIA) with the planning application (with annotations added).



Extract from LVIA 'Site Location and Planning Context Plan' showing Core Strategy designations within vicinity of site (annotations added)

9.4.2 Landscape and Visual Impact Assessment –

The Environmental Statement includes a Landscape and Visual Impact Assessment (LVIA) which assesses the landscape and visual effects of the proposed development. It does this by applying established LVIA methodology - to define baseline conditions, to determine the sensitivity of receptors, to determine the nature of effects (that is, the magnitude of change), and to assess whether a likely significant landscape and visual effect would be experienced by any receptor, taking into account any proposed mitigation measures.

Landscape effects: base line conditions –

The LVIA defines landscape effects as being caused by physical changes to the landscape, which may result in changes to the distinctive character of the landscape and how it is perceived. As a general rule, the degree to which a particular landscape type or area can accommodate change arising from a particular development without detrimental effects on its character will vary with:

- Existing land use;
- the pattern and scale of the landscape;
- visual enclosure / openness of views, and distribution of visual receptors;
- the scope for mitigation, which would be in character with the existing landscape; and
- landscape value.

Overall landscape impact is determined by combining the sensitivity of the landscape resource with the magnitude of landscape change.

In terms of baseline conditions, the site is located within the 'Avon Vale' National Landscape Character Area. Locally, in 2007, the West Wiltshire District Landscape Assessment (WWDLA) classified the area in which the site is located as being within the 'Heywood Rolling Clay Lowland' landscape character area (WWDLA ref. 'LCA E8'). The WWDLA sets out its characteristics as being:

- Gently rolling topography of the area slopes gradually downwards, moving southwards towards Westbury;
- Human influence strongly visible in the form of West Wilts Trading Estate and junction of two main railway corridors;
- Rural character disturbed by noise and visual intrusion associated with the railway corridors, roads and West Wilts Trading Estate;
- Combination of small, medium and large, farmed fields surround the trading estate, the boundaries of which are delineated by hedgerows in varying condition;
- A series of interconnecting minor roads cross the area;
- Settlement pattern dominated by nucleated arrangement of large warehouses within West Wiltshire Trading Estate but scattered farmhouses to the north and west;
- Generally, a low level of tranquillity throughout the area due to the main roads, the railway corridor and Trading Estate.

The open countryside immediately to the west of the site is located in the 'North Bradley Rolling Clay Lowland' landscape character area (WWDLA ref. 'LCA E3'). Its key characteristics as defined in the WWDLA are:

- Gently rolling farmland based on clay, with extensive views, including views on the chalk downland in the east and south;
- Distinct pattern of small to medium sized fields enclosed by mainly intact hedgerows with mature trees;
- Predominantly pasture with a few scattered ancient woodland blocks;
- Settlements consist of several villages and farmsteads linked by a dense network of mainly secondary roads and footpaths;
- Pylons as a dominant vertical element.

The relevant management and landscape objectives summarised in both of the Landscape Character Assessments focus on conserving landscape diversity and mitigating the "urbanising influence of large towns". They include:

- Managing existing vegetation and planting new woodland to maintain the enclosed character and screen views of intrusive urban edges;
- Developing guidance to ensure that new building and alterations to existing buildings integrate with the character and structure of settlements;
- Seeking of landscape enhancements from trading estate developments and screening of visual distractors.

The LVIA considers the context (or baseline circumstances) of the site itself. Key statements are as follows –

The Site is located in the Northacre Trading Estate, adjacent to the Brook Lane Trading Estate and the larger West Wilts Trading Estate. Together these form a significant urban extension to the north-west of Westbury town centre, comprising various utilitarian buildings and other structures. Access to the various plots is via Stephenson Road and Brook Lane. To the south of these industrial areas is the Westbury Rail Freight Facility.

The Site sits on the western slope of a slight ridge that runs north eastwards towards The Ham and falls away to the west, towards the West Wilts Trading Estate and the valley of the Biss Brook. The site itself is a currently vacant plot which has been subject to varying degrees of disturbance. …..

In the vicinity of the Site, the influence of existing industrial development is strong. Structures at Westbury Dairy (c. 38.5m), Welton Bibby & Baron (north of the Site c. 32m) and Faccenda (at the north-western edge of the West Wilts Trading Estate c. 31m) are well-established large built features within the wider industrial areas. Other functional development, including scrapyards and vehicle repair/storage yards are also present. A floodlit freight rail depot is located to the south of Brook Lane Trading Estate. Other lighting is also present at many of the industrial facilities. ….

The town of Westbury is situated on the northern edge of Salisbury Plain. …. The main urban core is relatively compact except on the south western side where ribbon development coalesces with Westbury Leigh and the elongated settlement of Dilton Marsh. The industrial areas described above form a significant protrusion into open countryside to the north-west of the settlement, and are separated from the town by the London to West Country railway line, associated sidings, and two large lakes. Some of the adjacent intervening land has been allocated for residential development in the core strategy. …..

In assessing the proposal itself the LVIA notes the "careful selection of colours for the different elevations and the stack cladding to break up the visual mass of the built volumes and better integrate them visually with the surrounding landscape / skyscape"; and landscaping proposals to "filter and partially screen views". Also relevant to assessing the proposal itself is the extant planning permission for a not dissimilar sized building on the site (the ATT); the extant planning permission for a screening bund to be formed on land to the west of the site; and the allocation of a significant parcel of land, again to the west of the site, for further employment development.

With the above in mind, the LVIA concludes that the landscape character of the trading estates (which are within LCA E8) has a low susceptibility to change given the well-established industrial use and the existing large scale buildings in the vicinity, *and* the planned expansion of the industrial uses to the west. The LVIA adds that in these circumstances the trading estates are tolerant to significant change, and accordingly the

effect of the proposed development on LCA E8 would be slight adverse[10] at most, and comparable with the extant planning permission.

With regard to the land to the west (within LCA E3), the LVIA confirms that this is more rural in character, but with evidence of alteration and degradation where it meets the urban/industrial fringe. In view of this – and in view of there being no landscape designations and only limited recreational value in the land close to the site – the LVIA concludes that this landscape has medium sensitivity, and accordingly is tolerant to some change at its interface with the urban edge of Westbury. As the proposed development would be adding to an existing assemblage of industrial structures on the industrial estates, the LVIA further concludes that the magnitude of change to the land to the west would also be medium due to a partial alteration of the area's visual context in close proximity to the site and from more elevated locations in the wider landscape (viewpoints 2 and A). This said, visibility from the majority of LCA E3 would be limited and fragmented due to a number of factors including – the natural screening afforded by a combination of topography, woodlands and hedgerows; the design approach for the development (in terms of its colours, building relief, etc.); the proposed landscaping (including the bund); and the existing and evolving context of the site within an industrial setting. Accordingly, the landscape effects on LCA E3 are concluded to be moderate adverse[11], but that these effects would be localised only and not widespread across the LCA.

These conclusions of the LVIA are agreed. Notably, that the effects of the proposal on the Heywood Rolling Clay Lowland landscape character area (which in the locality of the application site is essentially the Northacre Industrial Estate) would be 'slight adverse', whereas the effects on the North Bradley Rolling Clay Lowland landscape character area (which is essentially the presently open land to the west of the industrial estate) would be 'moderate adverse', although this likely reducing to 'Slight Adverse' when the extant planning permission is factored-in.

A slight adverse effect is where development does / would impact on views and cannot be fully mitigated. In the context of this industrial estate, where there are established industrial buildings – some sizeable and themselves presenting a slight adverse effect – a further industrial building presenting a further slight adverse effect, is not considered to be inappropriate or out of keeping. Indeed, it can be reasonably said that this industrial estate is now an established location for such developments.

A moderate adverse effect is where there is a greater impact than slight adverse, this as a consequence of, in particular, the scale of development/proposed development being at odds with the pattern and landform of the landscape. In this case, and notwithstanding the harm arising from the moderate adverse effect identified, the proposal is considered to be acceptable, this in view of the proximity of other sizeable industrial developments (including the Arla Dairies complex) and their not dissimilar impacts to those of the proposal. The moderate adverse effect is also considered to be acceptable in the context of the additional employment land allocation to the west of the site – this will inevitably further change the character of the 'countryside' hereabouts, and in view of its area – 3.8 ha – have a likely greater than slight adverse effect on the LCA in any event. Also, particularly relevant to the acceptability of the proposal in this context is the extant planning permission, albeit for fractionally lower buildings.

[10] A 'Slight Adverse' effect is where the development does not quite fit the landform and scale of the landscape. Notably, although not visually intrusive, the development will impact on certain views into and across the area; and it cannot be completely mitigated because of the nature of the proposal itself or the character of the landscape through which it passes.

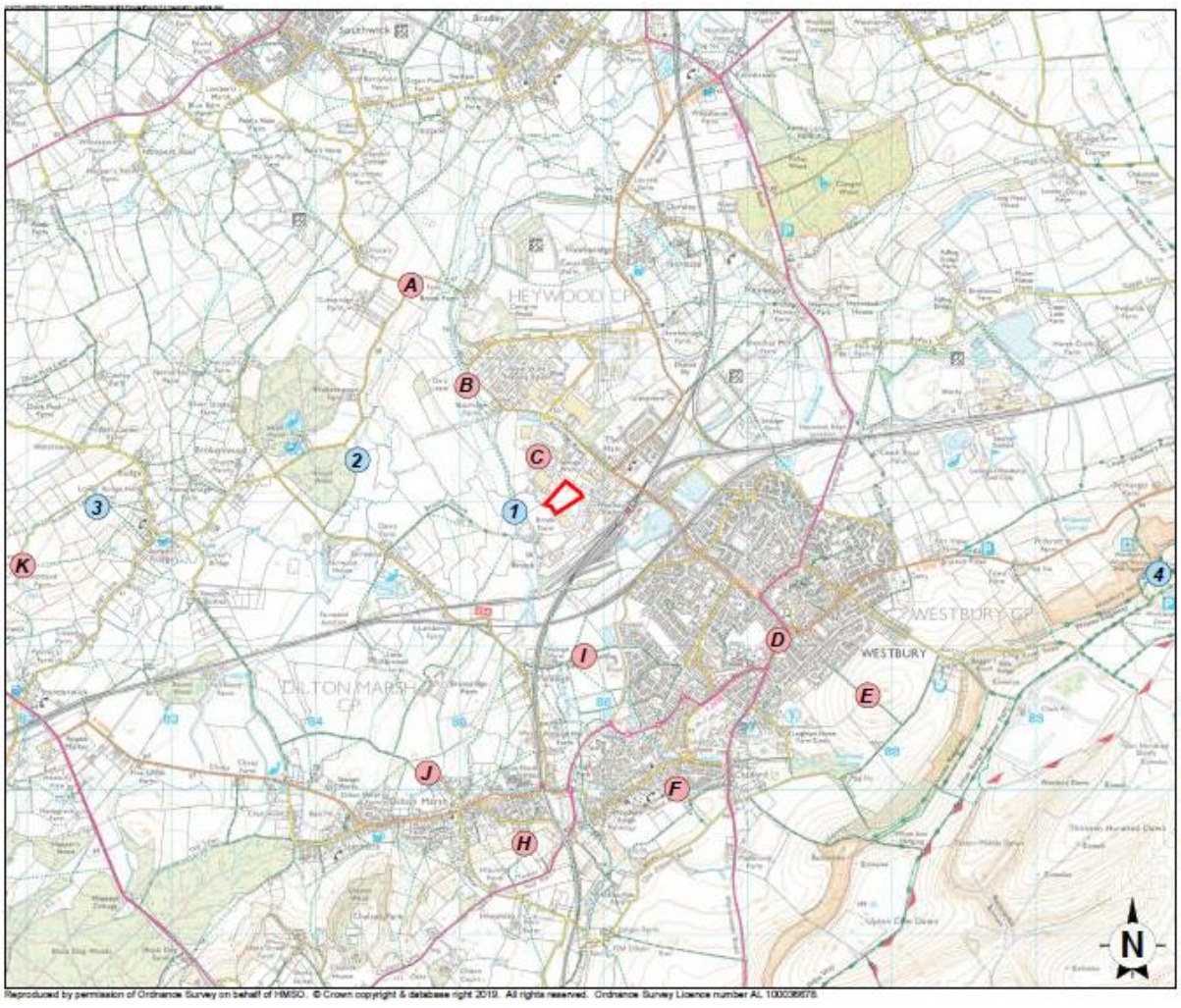
[11] A 'Moderate Adverse' effect is where the development is out of scale with the landscape, or at odds with the local pattern and landform. Such effects are not possible to fully mitigate for – that is, mitigation will not prevent harm to the landscape in the longer term as some features of interest will be lost or their setting reduced or removed; and they will have an adverse impact on a landscape of recognised quality or on vulnerable and important characteristic features or elements.

Visual effects: baseline conditions –

The LVIA defines visual effects as the changes to what can be seen by people as a result of what is proposed.

The LVIA includes a detailed assessment of visual effects from fifteen viewpoints. The locations of these viewpoints are indicated on the following map. They comprise representative viewpoints (providing the typical experience of different types of receptors in the vicinity); and specific viewpoints (for a particular view – for example a well-known beauty spot).

For the majority of the viewpoints the LVIA concludes that the proposed development would have only a slight to moderate adverse, moderate to slight adverse, slight adverse, moderate adverse or negligible effect on views. The one exception is viewpoint 1 – the footpath to the west of the site – where the effect is judged to be substantial to moderate adverse.



The most prominent structure in most views would be the 75m stack, although its visibility would diminish when seen against the sky at a distance. In the main, the significance of the effects on all identified views would be only 'slight adverse' to 'moderate adverse', this in view of the mass of existing buildings in these views (notably the dairy), and the distance

and/or fragmented nature of the views in what is a vast landscape and/or townscape anyway.

The exception is the view from the public footpath running north-west of Brook Farm (viewpoint 1), where the effect – due in part to proximity – would be 'substantial to moderate adverse', but again, read in the context of the other buildings and the further employment land allocation. This adverse effect in isolation is not considered sufficient to sustain an objection to the proposal's overall lesser impact in all other views, and the following conclusions of the LVIA are, accordingly, agreed –

While the Proposed Development is broadly compatible in terms of mass and scale with the adjacent dairy buildings and structures, it does result in a very clear change to the character and composition of this particular view mainly due to the fact that the associated buildings would occupy a large proportion of the overall view, substantially altering the existing views available. Consequently, there would be a deterioration in the quality of the view at this particular angle and location. This location was originally selected in order to represent the maximum degree of visual exposure to the Proposed Development along this section of public footpath (i.e. a worst case scenario) as views towards the Proposed Development either side of the viewpoint location would be filtered and partially screened by the existing streamside vegetation. This very close proximity view is perpendicular to the direction of travel for walkers using this footpath although the nature of their activity often involves absorbing wider contextual views. Taking all the above factors into consideration the degree of magnitude of change is deemed to be Large and this would result in Substantial to Moderate Adverse visual effects that are considered significant.

When compared to the 2019 Permission scheme, the Proposed Development would, whilst incorporating a main building with a taller maximum roof height, appear slightly smaller in scale, due to the arrangement of different elements of the building complex. The composition and colour of the new building elements would result in the form appearing less intrusive than the consented development. There would therefore be a small scale beneficial change when contrasted with the consented scheme.

The distant view from the east – from the popular 'beauty spot' by the Westbury White Horse – is concluded to be 'moderate to slight adverse'. The ES states -

Although the proposed buildings and associated stack would be clearly visible, they would only occupy an extremely small proportion of the overall panoramic views available. The small part of the view affected is already influenced by existing industrial development at the Dairy, MBT and adjacent industrial sites. In the context of the expansive panoramic view available, the Proposed Development would represent a minor addition. There would be a minor deterioration in the quality of the part of the view that looks towards Westbury, largely because of the contrast in colour between the stack and the woodland beyond and the intensification of industrial development in proximity to the dairy. Taking all the above factors into consideration the overall magnitude of change to the views available would be very Small and the resulting level of visual effect would be Moderate to Slight Adverse

When contrasted with the consented 2019 Permission the overall massing of the Proposed Development would appear slightly reduced due to the slightly narrower angle of view occupied by the main built forms and the reduced impact of the much narrower stack. At distances in excess of 4km the increased maximum building height would be barely perceptible. As such, the significance of visual effect associated with the Proposed Development would be slightly reduced compared to the 2019 Permission due to the narrower stack.

These conclusions on the significance of effects on views are agreed. The landscape in this area (and related views) has been, and will continue to be, influenced by the industrial operations at the industrial estates, and the proposal would not significantly add to or change this. Although parts of the development would be sizeable (notably the main building and stacks), these would be seen in the context of other existing substantial buildings and the wider urban form of Westbury, and the stacks in isolation are relatively slender structures within the wider views. With the use of appropriate materials for the buildings and additional landscaping - as proposed in this revised application – an acceptable situation would be achieved; likewise, the use of modern lighting techniques would lessen the impacts of the intended 24-hour operation. Overall, it is agreed that the effects on visual amenity would be acceptable.

9.4.3 Landscape and visual impact, and the 'planning balance' -

Overall, it is considered that as a consequence of the application site being allocated employment land *and* lying within an 'ordinary landscape' of medium sensitivity characterised by elements of built industrial form, *and* in view of at least some localised screening provided by woodland belts and hedgerows giving fragmented views from the west, that the proposed development can be accommodated without significant landscape or visual harm. In a number of views (notably from higher ground, including the escarpment to the east) the site is visible, but as these views are panoramic and, in some cases, at a distance, and as the industrialised form of the site is now part of the landscape in any event, it is not considered that detriment would be caused to the landscape and the views as a consequence of what is proposed. The recognised 'adverse' impacts on the landscape character of the adjoining landscape character area and on views from the close-by footpath would not in isolation amount to a sustainable reason for refusing planning permission, particularly when the fall-back position of an extant lawful planning permission and other benefits arising from the development in general (notably, the wider benefits for waste management) are factored in. The slight additional height of the now proposed building makes little difference to these conclusions.

These conclusions are agreed by Wiltshire Council's own Landscape Officer, who raises no objections to the application.

9.5 Traffic & Highway Safety

9.5.1 Policy background –

Policy WCS2 ('Future Waste Site Locations') of the Wiltshire & Swindon Waste Core Strategy 2009 states that in the interests of achieving the objectives of sustainable development, priority will be given to proposals for new waste management development that demonstrate a commitment to utilising the most appropriate haulage routes within and around the Plan area and implement sustainable modes and methods for transporting waste materials.

Policy WDC1 ('Key criteria for ensuring sustainable waste management development') of the Wiltshire & Swindon Waste Development Control Policies DPD 2009 sets out key criteria for assessing planning applications for waste development, this including the need for the impact of transporting waste to and from sites to be minimised. Policy WDC2 ('Managing the impact of waste management') has a similar requirement. And, more specifically Policy WDC11 states the following:

Waste management development will be permitted where it is demonstrated that the proposals facilitate sustainable transport by (where they are relevant to the development):

- *Minimising transportation distances*
- *Maximising the use of rail or water to transport waste where practicable*
- *Minimising the production of carbon emissions*
- *Ensuring a proposal has direct access or suitable links with the Wiltshire HGV Route*
- *Network or Primary Route Network*
- *Establishing waste site transport plans*
- *Mitigating or compensating for any adverse impact on the safety, capacity and use of a highway network. …..*

The Wiltshire Core Strategy contains similar general transport policies.

9.5.2 Transport Assessment –

A Transport Assessment (TA) to assess the likely impact of the proposed development on the local highway network has been provided (and subsequently 'sensitivity tested', at the request of the WC Highways Officer – see below). In view of Covid 19 restrictions on movement earlier in 2020, the TA relies on local traffic surveys from another recent TA relating to a nearby site to determine baseline conditions. The TA then applies to this baseline 'growth factors' and data relating to other permitted but not built out developments to enable accurate future operational baseline data to be derived at the planned point in time when the proposed development will become operational, which is 2025.

Separately the TA assesses the impact of the traffic that the proposed development itself will generate, and how this traffic will be 'spread' across the highway network throughout the working week and day. This analysis has regard to both the proposed additional throughput of waste at the site – from 160,000 tpa to 243,000 tpa – and the change in the movements at the MBT facility as a consequence of the planned reduction in exports of SRF (this (52,000 tpa) instead to be transferred directly to the proposed EfW by conveyor). The analysis also considers the lawful fallback position of the permitted ATT facility, and the relative changes between it and the current proposal.

The traffic generated – and to a certain extent reduced – by the proposed development is set out in the following table, taken from the TA –

Material	Vehicle Type & Payload	Tonnes per Vehicle Type	Loads per Year	Loads per Week	Trips per Week	Trips per Day
Incoming Waste	Bulk (24.5T)	181,440	7,406	154	309	51
	RCV (6.5T)	9,560	1,471	31	61	10
Incinerator Bottom Ash Export	Bulk (29T)	52,513	1,811	38	75	13
Air Pollution Control Residuals Export	Bulk (27.1T)	9,276	342	7	14	2
Diesel Import	Bulk (32T)	263	8	0	0	0
Ammonia Import	HGV (10T)	937	94	2	4	1
Hydrated Lime Import	Bulk (27.5T)	4,445	162	3	7	1
Powdered Activated Carbon Import	Bulk (21T)	70	3	0	0	0
Export from MBT to Northacre removed from Highway	Ro-Ro (8.5T)	-20,000	-2,353	-49	-98	-16
	Bulk (24T)	-32,000	-1,333	-28	-56	-9
Net Changes			7,610	159	317	53

Table 8: Predicted HGV Breakdown for the Northacre Facility (6 Days/Week, 48 Weeks/Year)

As is evident, the proposed development – importing 191,000 tonnes/yr – is expected to attract 159 loads per week, after transfer of SRF from the MBT facility is factored in. This is equivalent to 317 HGV movements per week, or 53 trips per day over the 6-day working

week. Averaging this out over the working day – which is 07:00-22:00 Monday to Friday and 07:00-17:00 Saturdays – this equates to on average 4 HGVs per hour (317 / 85 hrs).

Comparing this with the permitted ATT facility movements, these were/are 250 HGV movements per week, and 3 HGVs per hour. The TA, therefore, concludes from this that the current proposal relative to the 2019 permission would add, on average, a further single HGV movement per hour to the working weekday (notably the weekday AM and PM Peak hours), or an additional 12 HGV movement over the entire working day (Monday to Friday).

Applying this data to the predicted baseline traffic situation in 2025, the TA then calculates the percentage change in actual daily and peak hour vehicle and HGV numbers on the wider road network. This is shown in the following tables taken from the TA. As the HGVs move out on to the wider network they disperse, the applicant forecasting that 30% will come and go from the south on the A350, and all others assumed to arrive from the north, also via the A350.

Link	AADT			Daily HGVs		
	2025 Baseline with 18/09473	Change from Northacre Facility	Change (%)	2025 Baseline with 18/09473	Change from Northacre Facility	Change (%)
Link Road	6,623	12	0.2%	644	12	1.9%
B3097 North of WWTE	16,127	12	0.1%	1,218	12	1.0%
B3097 South of WWTE	9,010	0	0%	748	0	0%
A363 West of A350	12,312	12	0.1%	794	12	1.5%
A350 North of A363	20,934	8	0%	1,158	8	0.7%
A350 South of A363	14,122	4	0%	636	4	0.6%
A350 in AQMA	17,642	4	0%	976	4	0.5%
Brook Lane	2,637	0	0%	2,637	0	0%
B3097 Station Road	11,680	0	0%	140	0	0%

Table 13: Changes in Traffic in Annual Average Daily Traffic Relative to 2025 Baseline

Junction	Weekday AM Peak Hour (08:00-09:00)			Weekday PM Peak Hour (17:00-18:00)		
	2025 Baseline with 18/09473	Change from Northacre Facility	Change (%)	2025 Baseline with 18/09473	Change from Northacre Facility	Change (%)
B3097/WWTE/Hawke Ridge Business Park Roundabout	1,919	2	0.1%	1,940	1	0.1%
A363/B3097 Roundabout (White Horse Business Park)	2,536	2	0.1%	2,597	3	0.1%
A350/A363 Roundabout (Yarnbrook)	2,840	2	0.1%	3,021	3	0.1%
A350/B3097 Mini Roundabout	1,605	0	0.0%	1,799	0	0.0%
A350/B3098 Mini Roundabout	2,045	0	0.0%	2,006	0	0.0%
B3097/Storridge Road Roundabout	1,436	0	0.0%	1,487	0	0.0%

Table 12: Changes in Traffic in Weekday AM & PM Peak Hours relative to 2025 Baseline

The comparison of daily traffic flows (AADT) ('Table 13') shows no significant changes arising from the development, the increases in general being well below 1%. Likewise, the predicted changes in peak hour traffic arising from the additional traffic relative to the 2025 baseline are all well below 1% of the baseline traffic, demonstrating no significant effects.

There would also be light vehicle movements per day from 40 staff commuting, 80 movements daily, 82% by car.

Regarding construction traffic, construction is assumed to commence in 2022 with a three-year programme, peaking in 2023. The applicant has advised that the development might peak at 450 construction staff on site, although 300 is more likely at most times, this generating c. 100 vehicle movements, assuming lift sharing.

The TA summarises the traffic implications of the proposal in the following terms –

(i) *Outline permission for employment use was granted in 1998, followed by reserved matters permission (W/09/02918/REM) for 3,434m² of B1/B8 floor space and ancillary offices in 4 units, with parking for 70 cars.*
(ii) *The Local Highway Authority (LHA) was explicit that an EfW facility importing 118,500 tonnes/year permitted in 2015 (14/12003/WCM) '…will not have a measurable effect on the local highway network', with subsequent applications, including the 2019 Permission (18/09473/WCM) receiving the same response from the LHA.*
(iii) *The development site is within an extensive area of industrial and employment development north west of Westbury. All HGV traffic approaches from the north, controlled by weight and height restrictions.*
(iv) *A large area of Westbury is within walking or cycling distance and bus and rail services link to surrounding main commuting origins.*
(v) *Baseline traffic flows including significant committed development have been derived from information supporting other planning applications.*
(vi) *The traffic predicted for the 2019 Permission comprised 11 movements in the weekday AM & PM peak hours (8 light vehicles, 3 HGVs) and 108 daily movements (66 light vehicles, 42 HGVs).*
(vii) *The Northacre Facility as now proposed would import 191,000 tonnes/year of material (waste fuel and processing products), with 52,000 tonnes from the adjacent MBT Plant, removing 22 daily HGV movements from local roads.*
(viii) *The Northacre Facility would have the same staffing as the 2019 Permission, so there would be no change in light traffic. The additional imported material would add an average of a single HGV movement to local roads in the weekday AM & PM peak hours and 12 over the working day.*
(ix) *Changes to key junctions in the weekday peak hours would be well below 1% of baseline traffic in 2025, with changes in daily traffic of a similar order, so no further analysis of traffic impact is required.*
The changes in the Westbury AQMA amount to less than 0.1% of general traffic or 0.5% of HGVs over 12 hours [AQMA addressed below].
(x) *Changes in construction traffic relative to the 2019 consent have been considered and shown to be insignificant.*

The conclusions of the TA are agreed. In terms of the effects of the proposal on the wider road network, these are considered to be insignificant, particularly in the context of the past planning permissions for an ATT at the site and the wider allocation of land hereabouts for other employment or waste related uses which could potentially give rise to higher HGV and car movements than those predicted now. It is also relevant that the A350 is a designated Strategic Lorry Route.

The Environmental Statement relies on the TA outcomes, and so draws the same conclusions with regard to environmental impacts associated with traffic. Briefly, the ES states that the proposed development would have no significant effects on highway capacity and safety, at both the construction and operational stages of the development.

Notwithstanding these conclusions on the limited impact of traffic, mitigation is recommended in any event in the form of a Travel Plan – to reduce the number of car-borne trips (by staff in particular) – and a CEMP for managing construction traffic. Conditions are recommended accordingly.

Sensitivity testing –

At the request of the Council's Highways Officer, traffic generation has been further analysed, but without the fallback of the lawful planning permission being factored in (that is, without 18/09473). The Highways Officer explains his reasoning for requiring the information in this form – and draws his final conclusions on this – as follows …

….. Whilst the developers reasonably argue that the extant permission represents a 'back stop' development, the impact of the proposals should be considered without the extant permission to fully understand the implications of the proposals; the extant permission has been subsequently considered as a cumulative assessment. It is clear that local residents and stakeholders affected by the proposals, do not currently experience traffic generation from the extant permission and hence additional or reduced impact upon the extant permission has limited resonance. A subsequent revised Transport Assessment addressed this issue, illustrating in Table 18 that Brook Lane would experience the highest peak impact from the development, being just 2%; heavier trafficked roads have a lesser impact.

Table 18 from the 'Transport Assessment with Sensitivity Tests' document referred to here is reproduced below.

	AM Peak			PM Peak		
Link Road	2025 Baseline	Northacre Facility	Change	2026 Baseline	Northacre Facility	Change
Link Road	702	12	1.8%	747	4	0.6%
Brook Lane	311	5	1.5%	233	5	2.0%
B3097 Station Road	1,085	4	0.4%	1,171	4	0.3%
B3097 The Ham	730	1	0.1%	824	1	0.1%
B3097 at Hawkeridge	1,373	13	1.0%	1,522	5	0.3%
Phillips Way	863	12	1.4%	840	4	0.5%
Westbury Road	1,096	0	0.0%	1,108	0	0.0%
A363 to Trowbridge	1,217	2	0.2%	1,388	2	0.1%
A363 at Yarnbrook	1,176	10	0.9%	1,300	2	0.1%
A350 to Chippenham	2,082	7	0.3%	2,167	2	0.1%
A350 Trowbridge Road	1,361	4	0.3%	1,462	1	0.0%
A350 Haynes Road	1,298	6	0.5%	1,421	3	0.2%
A350 Warminster Road	1,771	6	0.3%	1,764	3	0.1%

Table 18: Changes in Weekday AM & PM Peak Link Flows

As is evident from Table 18, the peak hour changes on all of the links on the local highway network remain negligible, even when the lawful fallback position is taken out of the equation.

The TA with sensitivity tests adds the following to the original TA conclusions, which area agreed –

……

(viii) Considered in isolation, without the legitimate fall-back of the 2019 Permission, the Northacre facility is expected to add 5 HGV movements and 7 staff movements to the AM peak hour, a single HGV movement and 7 staff vehicles in the PM peak and 120 daily trips (54 HGVs & 66 light vehicles).

(ix) Relative to the 2019 Permission, which could be implemented so represents the valid fall-back or baseline for the site, the Northacre Facility would make no change in staff traffic and might add a single HGV movement to the AM peak hour, adding about 12 HGV trips over the working day.

(x) Changes to key junctions in the weekday peak hours would be well below 1% of baseline traffic in 2025, with changes in daily traffic of a similar order. The changes at all junctions on the local highway network would all fall below Wiltshire Council guidance thresholds for detailed analysis.

(xi) Changes on traffic on highway links would be negligible and hence no capacity impact could be expected.

…..

(xiii) Changes in construction traffic relative to the 2019 consent have been considered and shown to be insignificant.

9.5.3 Westbury Air Quality Management Area

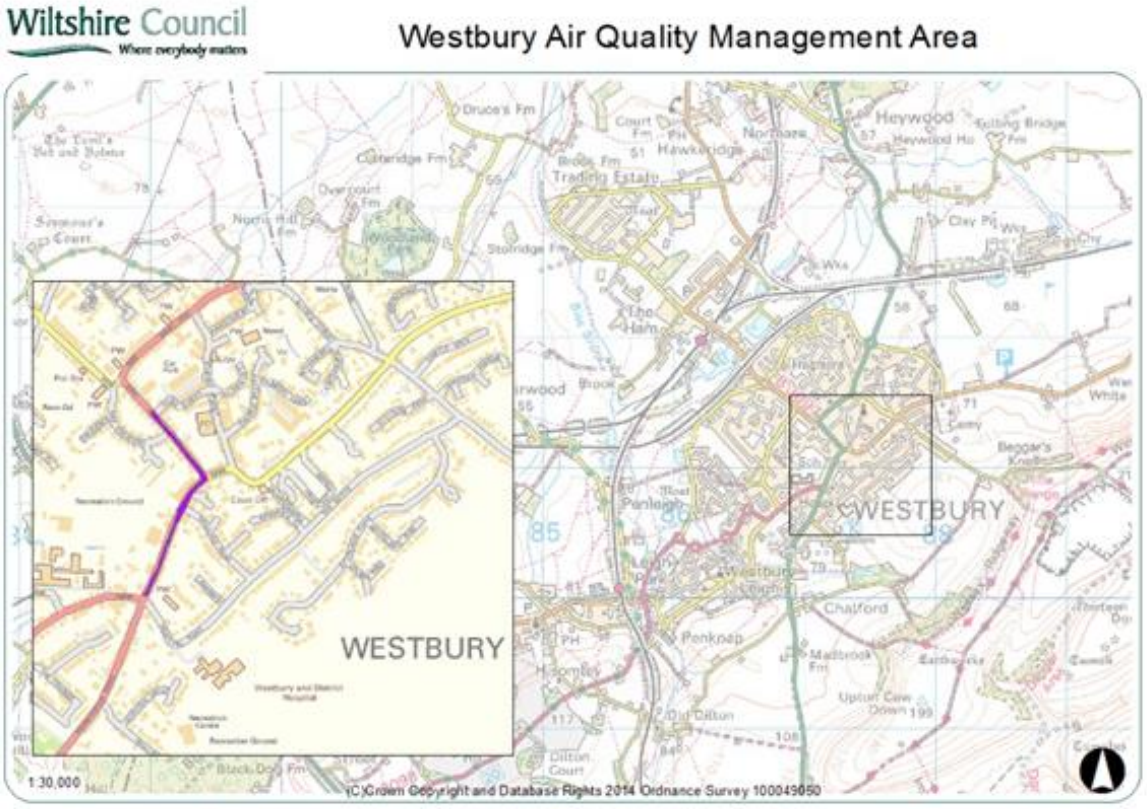
Policy background –

Core Policy 55 relating to air quality requires development proposals, which by virtue of their scale, nature or location are likely to exacerbate existing areas of poor air quality, to demonstrate that measures can be taken to effectively mitigate emission levels in order to protect public health, environmental quality and amenity. Mitigation measures may include possible traffic management or highway improvements, abatement technology, traffic routing and site management, and where appropriate contributions.

The Air Quality Strategy for Wiltshire 2011-2015 states the following:

Air quality in Wiltshire is predominantly good with the majority of the County having clean unpolluted air. There are however a small number of locations where the combination of traffic, road layout and geography has resulted in exceedences of the annual average for nitrogen dioxide (NO2) and fine particulates (PM10).

These locations include parts of the A350 where it passes through Westbury, as indicated on the following plan:



An Air Quality Action Plan for Wiltshire is awaiting DEFRA approval, and a specific Westbury Action Plan is in preparation. An Air Quality SPD is also in preparation. The draft version of the SPD states the following:

Where developments take place in an AQMA [Air Quality Management Area], mitigation measures must be considered as standard practice, particularly in cases where the development is new and does not replace an existing use. This is especially important where the development has provision for a large number of parking spaces, significantly increasing the number of trips, and/or heating plant. In some cases it may be necessary to recommend refusal where a development is so contrary to the objectives of the Air Quality Action Plan and Strategy.

The SPD states that mitigation may take the form of appropriate construction, appropriate design, travel plans, use of clean/alternatively fuelled vehicles, and low emission schemes and strategies.

Impact of proposal –

The Transport Assessment which accompanies the application includes a comparison of existing/known traffic flows ('baseline'[12]) through the Westbury AQMA with traffic flows as a consequence of the proposed development (factoring in the extant planning permission). The relevant part of the TA states the following –

[12] Baseline traffic includes predictions of traffic associated with development on other sites that has planning permission but has not been built and occupied. Where it is highly likely that a permitted scheme will be operational by 2025, it is included in the baseline traffic.

The changes in traffic predicted through the Westbury AQMA are summarised in the table below …… illustrating the change in traffic from the current planning application for the Northacre Facility relative to the facility allowed on the site by the 2019 Permission, which forms the baseline position.

The table compares the changes in traffic against the 2025 baseline position with the 2019 Permission operating on the site, ….. The baseline traffic is taken from 2-way traffic on the A350 Warminster Road south west of the Haynes Road mini roundabout.

Link	2025 Baseline (With 2019 Permission)	Change from Northacre Facility	Change (%)
Weekday AM Peak Hour	1,955	0	0%
Weekday PM Peak Hour	1,892	0	0%
Weekday 12-Hour (All Traffic)	17,642	4	0.0%
Weekday 12-Hour (HGVs)	976	4	0.5%

Table 14: Changes in Traffic in Westbury Air Quality Management Area

The table shows that the AQMA will not experience any significant changes in traffic in the peak hours, with changes quantified at less than 0.1% of general traffic.

The changes in HGV movements through the AQMA over a 12-hour period are predicted at 0.5%, although as HGVs make up 5.5% of general traffic, the total change over a 12-hour day is less than 0.1% of all traffic.

It is therefore evident that there will be no significant traffic impact on the Westbury Air Quality Management Area, but the implications for air quality are examined in detail in the Environmental Statement prepared to support the planning application.

At the request of the Council's Public Protection Officer and Highways Officer the applicant has also assessed (sensitivity tested) the impact of the proposed development without the lawful fallback position of the 2019 permission. The methodology used in this assessment has been independently examined on behalf of the Council. The results are set out in the following table, taken from the Transport Assessment Addendum (blue columns showing change relative to baseline without 2019 fallback, and green columns showing change relative to baseline with 2019 permission (as per the above table) –

Period	2025 Baseline	Change due to Northacre Facility		Change Relative to 2019 Permission	
		Traffic	%age Change	Traffic	%age Change
Weekday AM Peak Hour	1,771	6	0.3%	0	0%
Weekday PM Peak Hour	1,764	3	0.2%	0	0%
Weekday 12-Hour (All Traffic)	16,420	32	0.2%	4	0.0%
Weekday 12-Hour (HGVs)	840	16	1.9%	4	0.5%

Table 19: Changes in Traffic in Westbury Air Quality Management Area relative to 2025 Baseline

On these predictions, the TA Addendum concludes as follows –

The table shows that without considering the legitimate fall-back of the 2019 Permission, the Northacre Facility would bring about changes in general traffic through the AQMA of 0.2 to 0.3% in the peak hours and just 0.2% of daily traffic. The percentage daily increase in HGVs, without the fallback, would be 1.9%.

It is therefore evident that there will be no significant traffic impact on the Westbury Air Quality Management Area,

The TA also considers committed development that may not be built out by 2025 – notably, Hawkeridge Business Park and the Northacre Waste Transfer Station. On these the TA concludes that the addition of this committed development over the 2025 baseline traffic makes no material difference to the development traffic through the AQMA as a percentage of traffic that would otherwise be passing through, the changes remain very small.

The conclusions that the development is unlikely to result in a significant impact on current air quality is accepted and agreed by the Public Protection Officer. However, in the context of LAQM and EPUK guidance – which states that *"Even where the effect is judged to be insignificant, consideration should be given to the application of good design and good practice measures"* – and in the light of Core Policy 55 which requires effective mitigation in order to protect "public health, environmental quality and amenity", it is considered that mitigation would be required in any event. A Travel Plan is required, as referred to previously. In addition, the Council's Public Protection Officer requires the provision of some Ultra Low Energy Vehicle (ULEV) infrastructure in the development In the interests of good planning and design); a further condition is recommended accordingly.

9.6 Amenity (including effects of noise/vibration, air quality, odours, etc.)

9.6.1 Policy background –

Policy WDC2 ('Managing the Impact of Waste Management') of the Wiltshire & Swindon Waste Development Control Policies DPD states that proposals for waste management development in Wiltshire and Swindon will be permitted where it can be demonstrated that the proposal avoids, adequately mitigates against, or compensates for significant adverse impacts relating to, notably here, amenity and noise emissions. Core Policy 57 (Ensuring high quality design and place shaping) of the Wiltshire Core Strategy sets out similar criteria to safeguard amenity.

The National Planning Policy for Waste states that in determining planning applications waste planning authorities should consider the likely impact on the local environment and on amenity, and the locational implications of any advice on health from the relevant health bodies. It further states that waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies.

9.6.2 Noise and vibration –

The Environmental Statement includes a chapter relating to noise and vibration. This considers the potential noise impact of the proposed facility (using noise data and/or noise predictions for the planned buildings and plant) against background noise levels.

The baseline sound data is that recorded following surveys carried out across the area in 2014 (for planning application no. 14/12003/WCM) and March 2018 (for 18/09473/WCM).

These assessment locations are used to model the impacts of the current proposal. The locations for the modelling are set out in the following table taken from the ES (where 'Assessment Location M01a' is the nearest residential property):

Table 7.17: Noise Monitoring Locations (iON Acoustics Survey)

Location Reference	Description	Approximate Ordnance Survey Co-ordinates (E, N)
M01	Unattended logging station in the vicinity of Stephenson Road, close to the junction with Brook Lane.	385831, 152051
M01a	Attended monitoring location on Brook Lane, in the vicinity of the residential property at Brookfield.	385921, 152035
M02	Attended monitoring location off Oldfield Road to the south east of the proposed site, close to the railway lines and the residential properties.	386323, 151551
M03	Attended monitoring location off Storridge Road to the north east of the site.	385887, 152370
M04	Attended monitoring location to the south west of the site, approximately 160m from the existing MBT facility. This is in the vicinity of Orchard House receptor.	385566, 151779
M05	Attended monitoring location in the vicinity of Brook Cottage, approximately 600m to the west of the existing MBT Facility.	385045, 151896

The locations are further illustrated on the following aerial photograph, taken from the 2018 Noise Assessment:

Noise Assessment Locations

Predicted noise levels have been calculated based on library data from similar EfW facilities operating elsewhere in the country, and include the following assumed inherent mitigation measures:

(i) Buildings constructed from single skin cladding (Rw=24dB).
(ii) Air cooled condenser fans operating at an overall sound power level of 100dB(A) (6 fans at 92dBW each fan).
(iii) Fan stack & roof vents designed to a sound power level of 90dBW (79dB $L_{Aeq15mins}$ @ 1m free field) at flue exit point of stack.
(iv) Turbine air cooler fans – overall sound power level of all fans operating designed to a level of 90dB(A)
(v) Smaller external plant (e.g. air conditioning, pumps etc) not to exceed 70dB(A) @ 1m.
(vi) ID Fan acoustically enclosed.
(vii) Ventilation louvres attenuated using single bank acoustic louvres.
(viii) Doors closed except for access to vehicles for offloading and collection unless for maintenance or emergency.
(ix) Doors into Tipping Hall minimum Rw 12dB, doors into Turbine Hall acoustic type (Rw 29dB) and all other doors Rw 18dB.
(x) Earth mound screen along southwestern boundary (as permitted).
(xi) Sound power levels of plant as detailed in Appendix 7-5.
(xii) Design to ensure no noise character is perceptible at NSRs in accordance with BS4142: 2014+A1:2019.
(xiii) Mobile plant vehicles fitted with non-tonal reversing alarms (i.e. broadband type noise alarms). Where practicable HGVs that are in control of the site operator should be instructed to have a similar type of reversing alarm.

Based on the above base data, design circumstances and modelling, the noise chapter concludes that the noise impact from the proposed development during its operation would be “negligible to neutral” during both daytime and overnight periods, and so would not result in any significant noise impacts. This is, in fact, a slight improvement over the consented ATT facility.

On construction noise, the chapter concludes that at most receptors the impact magnitude would be just “slight” resulting in a minor level of effect. At receptor R2 during site preparation and infrastructure works, the ES notes that the guidance threshold value may be just exceeded resulting in a “moderate” impact and “moderate” effect. However, the use of ‘best practice’ would assist in reducing what would be a temporary effect in any event.

The Noise chapter summarises the predicted cumulative noise levels (taking into account the approved Waste Transfer Station) in the following table –

Table 7.29: Predicted Cumulative Noise Levels from the Northacre Facility & Permitted WTS Facility during Daytime

Receptor Position (Refer to Figure 6.1)	Predicted Northacre Facility Rating[1] Noise Level from Site L_{Aeq1hr} dB	Predicted WTS* Rating[1] Noise Level from Site L_{Aeq1hr} dB	Cumulative noise level L_{Aeq1hr} dB	Baseline Sound Level $LA90_{1hr}$ dB [LAeq]	Excess over baseline dB(A)	Noise Change LAeq dB
R1: Orchard House	37	38	41	45 [52]	-4	+0.3
R2: Crosslands/ Brookfield	42	42	45	42 [52-54]	+3	+0.5 to +0.8
R3. Storridge Road	39	32	40	44 [67]	-4	0
R4. Oldfield House	30	33	35	55 [66]	-20	0
R5. Brook Lane	34	33	37	44 [67]	-7	0
R6. Brook Cottage	32	29	34	33 [43]	+1	+0.5

*iON Acoustics predicted noise contribution from report A1247 R02 dated 9th April 2018

And the 'Residual impact magnitude' of each activity at the site in the following summary table –

Table 7.30: Residual Impact at Nearest Receptor after Mitigation Measures

Source	Nature of Effect	Time Period	Potential Effect	Proposed Mitigation	Residual Effect	Residual Impact Magnitude
Construction noise	Direct & Temporary	Daytime	Neutral to Moderate	CEMP	Neutral to Minor	Negligible to Slight
Road traffic noise (construction)	Direct & Temporary	Daytime	Neutral	None required	Neutral	Negligible
Road traffic noise (operation)	Direct & Permanent	Daytime	Neutral	Inherent traffic routes	Neutral	Negligible
Industrial noise (Site operation)	Direct & Permanent	Daytime Night	Neutral to Minor Neutral to Moderate	Design & mitigation	Neutral Neutral to Minor	Negligible Negligible to Slight
Cumulative effects	Direct & Permanent	Daytime	Neutral to Minor	Design & Mitigation	Neutral to Minor	Negligible to Slight
Construction Vibration	Direct & Temporary	Daytime	Neutral	CEMP	Neutral	Negligible
Operational Vibration	Direct & Permanent	Daytime Night	Neutral Neutral	None required	Neutral Neutral	Negligible Negligible
Road traffic vibration	Direct & Permanent	Daytime	Neutral	None required	Neutral	Negligible

Overall, the proposal would result in no significant noise impacts.

This outcome is agreed by the Council's Public Protection Team. Conditions are recommended to ensure that the development is completed in accordance with the noise levels and mitigation measures set out in the ES, and that noise levels are then maintained at acceptable levels.

Construction noise would be controlled via the CEMP, which is also a matter for conditions.

When operational the proposed development, by reason of its manner of operation, should not give rise to vibration. Vibration during construction (from, for example, piling) would be managed via the CEMP.

9.6.3 Air quality: emissions –
The NPPF recognises that to prevent unacceptable risks from air pollution, planning decisions should ensure that new development is appropriate for its location. It states that the effects of pollution on health and the sensitivity of the area and the development should be taken into account.

The Environmental Statement includes an air quality chapter. This is set out in full as an annex to this report (annex 3). The chapter covers process emissions, and process dust and odour; dust from construction activities; and vehicle emissions.

Operational stage process emissions –

The principal types of emissions to air that would result from operation of the proposed development are:

- Emissions associated with vehicle movements;
- Process emissions vented through the proposed facility's stacks and
- Potential fugitive emissions of dust and odour.

The ES chapter states that in order to quantify the potential impact of emissions from the process, and to determine the optimum stack height for dispersion, detailed atmospheric dispersion modelling is required. This modelling predicts the ground level concentration of pollutants on a long and short-term basis across a grid of points. It also calculates the concentration at nominated points to represent sensitive receptors.

On the modelling methodology, the ES chapter states the following –

For the Proposed Development to operate it will need to satisfy industrial permitting requirements set out and monitored by the Environment Agency. However, Environment Agency guidance has not been developed for conducting an assessment to accompany a planning application. Consequently, the IAQM guidance document "Land-Use Planning & Development Control: Planning for Air Quality" (2017) has been developed for professionals operating within the planning system. It provides planning officers and developers with a means of reaching sound decisions, having regard to the air quality implications of development proposals. The IAQM (2017) guidance states that it may be adapted using professional judgement. Therefore, where appropriate, Environment Agency guidance has been incorporated which is considered appropriate given that the Proposed Development will need to satisfy the industrial permitting requirements set out by the Environment Agency.

The IAQM (2017) guidance includes the following matrix which should be used to describe the impact based on the change in concentration relative to the AQAL and the overall predicted concentration from the scheme - i.e. the future baseline plus the process contribution.

Table 8.4: Magnitude of Change Descriptors

Long term average concentration at receptor in assessment year	% change in concentration relative to the Air Quality Assessment Level (AQAL)			
	1	2-5	6-10	>10
75% or less of AQAL	Negligible	Negligible	Slight	Moderate
76-94% of AQAL	Negligible	Slight	Moderate	Moderate
95-102% of AQAL	Slight	Moderate	Moderate	Substantial
103-109% of AQAL	Moderate	Moderate	Substantial	Substantial
110% or more of AQAL	Moderate	Substantial	Substantial	Substantial

It is intended that the change in concentration relative to the AQAL (the process contribution) is rounded to the nearest whole number. Therefore, any impact which is between 0.5% and 1.5% would be classified as a 1% change in concentration. An impact of less than 0.5% is described as negligible, irrespective of the total concentration.

The above matrix is only designed to be used with annual mean concentrations. The approach for assessing the impact of short-term emissions has been carried out in line with the IAQM (2017) guidance. This does not take into account the background concentrations as it is noted that background concentrations are less important in determining the severity of impact for short term concentrations.

Consequently, for short term concentrations (i.e. those averaged over a period of an hour or less), the following descriptors of change are used to describe the impact:

- *< 10% - negligible;*
- *10 - 20% - slight;*
- *20 - 50% - moderate; and*
- *> 50% - substantial.*

Following quantification of the magnitude of change the assessor should determine the significance of effect using professional judgement and should take into account such factors as:

- *The existing and future air quality in the absence of the development;*
- *The extent of current and future population exposure to the impacts; and*
- *The influence and validity of any assumptions adopted when undertaking the prediction of impacts.*

The way in which the facility would operate – and notably here, manage its emissions – is set out earlier in this committee report, but for ease of reading the relevant section covering this is set out again here –

Flue Gas Treatment and Stack

Gases generated during the combustion process would be cleaned in the flue gas treatment plant before being released into the atmosphere via the stack (chimney). The treatment plant works by using a number of filters and chemicals to remove pollutants from gases and ensures that the plant operates within the emission limits set out in the Environmental Permit issued by the Environment Agency that will be required prior to operations commencing. As a minimum, the Environmental Permit will meet the requirements of the Industrial Emissions Directive. Emissions from the stack would be monitored continuously and reported in accordance with the Environment Agency's requirements

The full chapter from the ES which further explains the methodology for assessing emissions is included at annex 3 to this report. The critical outcomes table from the chapter ('Table 8.16') - which sets out the calculated maximum emissions to atmosphere relative to European Ambient Air Directive (AAD) limits and target values, national (UK) Air Quality Strategy (AQS) objectives, and the Environment Agency's Environmental Assessment Levels (EAL) - is also set out below, followed by the ES's related conclusions:

Table 8.16: Summary of Dispersion Modelling Results – Point of Maximum Impact – Daily ELVs

Pollutant	Quantity	Units	AQAL	Background	PC	PC as % of AQAL	PEC	PEC as % of AQAL
Nitrogen dioxide	Annual mean	µg/m³	40	13.19	0.76	1.89%	13.95	34.87%
	99.79th%ile of hourly means	µg/m³	200	26.38	5.04	2.52%	31.42	15.71%
Sulphur dioxide	99.18th%ile of daily means	µg/m³	125	4.42	1.89	1.51%	6.31	5.05%
	99.73rd%ile of hourly means	µg/m³	350	4.42	3.57	1.02%	7.99	2.28%
	99.9th%ile of 15 min. means	µg/m³	266	4.42	4.06	1.53%	8.48	3.19%
PM_{10}	Annual mean	µg/m³	40	14.91	0.05	0.11%	14.96	37.39%
	90.41th%ile of daily means	µg/m³	50	29.82	0.15	0.30%	29.97	59.94%
$PM_{2.5}$	Annual mean	µg/m³	25	9.77	0.05	0.18%	9.82	39.26%
Carbon monoxide	8 hour running mean	µg/m³	10,000	532	8.20	0.08%	540.20	5.40%
	Hourly mean	µg/m³	30,000	532	10.63	0.04%	542.63	1.81%
Hydrogen chloride	Hourly mean	µg/m³	750	1.42	1.27	0.17%	2.69	0.36%
Hydrogen fluoride	Annual mean	µg/m³	16	2.35	0.01	0.06%	2.36	14.74%
	Hourly mean	µg/m³	160	4.7	0.21	0.13%	4.91	3.07%
Ammonia	Annual mean	µg/m³	180	2.93	0.09	0.05%	3.02	1.68%
	Hourly mean	µg/m³	2,500	5.86	2.13	0.09%	7.99	0.32%
VOCs (as benzene)	Annual mean	µg/m³	5	0.39	0.09	1.80%	0.48	9.60%
VOCs (as benzene)	Hourly mean	µg/m³	195	0.78	2.13	1.09%	2.91	1.49%
VOCs (as 1,3-butadiene)	Annual mean	µg/m³	2.25	0.16	0.09	4.01%	0.25	11.12%
Mercury	Annual mean	ng/m³	250	20.01	0.18	0.07%	20.19	8.08%
	Hourly mean	ng/m³	7500	40.02	4.25	0.06%	44.27	0.59%
Cadmium	Annual mean	ng/m³	5	0.57	0.18	3.61%	0.75	15.01%
	Hourly mean	ng/m³	-	1.14	4.25	-	5.39	-
PAHs	Annual mean	pg/m³	250	980	0.95	0.38%	980.95	392.38%
Dioxins	Annual mean	fg/m³	-	32.99	0.54	-	33.53	-
PCBs	Annual mean	ng/m³	200	0.13	0.05	0.02%	0.17	0.09%
	Hourly mean	ng/m³	6000	0.26	1.06	0.02%	1.32	0.02%

ES 'Table 8.16' - Maximum predicted concentrations from emissions to atmosphere[13]
[AQAL: Air Quality Assessment Levels (from AAD, AQS & EAL objectives/levels);
PC: Process Contribution (concentration of each released substance);
PEC: Predicted Environmental Concentration (PC plus concentration of substance already present)]

The ES concludes on the outcomes of the modelling as follows:

The assessment of process emissions has drawn the following conclusions:

- *The process contribution for most pollutants can be described as negligible irrespective of baseline concentration at the point of maximum impact. However, further analysis has been needed for annual mean impacts of nitrogen dioxide, VOCs and cadmium, and short-term sulphur dioxide impacts.*

[13] Table 8.16 explanation: The concentration of, for example, NO2 is measured in micrograms in each cubic metre of air (µg m3). A microgram (µg) is one millionth of a gram. A concentration of 1 µg/m3 means that one cubic metre of air contains one microgram of pollutant. To protect health, the UK Government sets two air quality objectives for NO2 in their Air Quality Strategy (AQS):

- The hourly objective, which is the concentration of NO2 in the air, averaged over a period of one hour. This is designed to make sure that we are not exposed to high concentrations of NO2 for short periods of time. High concentrations can arise in episodes, which are usually associated with particular weather conditions.
- The annual objective, which is the concentration of NO2 in the air, averaged over a period of a year. This aims to protect us from being exposed to NO2 over a long time.

The relevant AQS (or AAD or EAL) objectives/levels are shown on the AQAL column of Table 8.16.

- *When the baseline concentrations are taken into account the magnitude of change of annual mean concentrations is negligible at all areas of relevant exposure. This includes consideration of the in-combination impact of process and road traffic emissions.*
- *Further analysis of the short-term sulphur dioxide impacts concludes that there is little risk that impacts would be greater than 10% of the AQAL and therefore the magnitude of change is negligible.*
- *The magnitude of change of nitrogen dioxide emissions in the AQMA can be described as negligible. This includes consideration of the in-combination impact of process and road traffic emissions.*
- *The impact of most metals on human health can be screened out as insignificant irrespective of baseline concentration. However, further analysis has been needed for the impacts of arsenic, and nickel. When baseline concentrations are taken into account, the PEC is well below the AQAL and the impacts can be screened out. Therefore, the effect of process emissions of metals on human health is considered negligible.*

Using professional judgement, based on the conservatism in the process emissions modelling assumptions, the overall process emissions associated with the operation of the Proposed Development is predicted to have a 'negligible' and 'not significant' effect on human health.

The conclusions of this analysis have been agreed by the Council's Public Protection Officers. The application has generated no objections from Public Health England or the Environment Agency.

A number of third parties have expressed concern that not all emissions impacts are considered by expert consultees – in particular, very small particulate matter. The question of responsibility has been addressed in the external legal opinion; the question and answer is set out in the following box –

The role of planning when dealing with other regulatory regimes when thresholds within those other regulatory regimes may not capture all known areas of concern in an evolving area (air quality)?

20. It is best to deal with this theoretical question in the practical context before me. If, here, the 'evolving area (air quality)' is an allusion to public concern about health impacts of air pollution (and in particular the effects of particulate matters), it is for the planning system to defer to the Government's approach that such matters are safeguarded by Public Health England advising the conduct of the permitting regime. Actual health impacts are, therefore, something which the local planning authority may legitimately consider are adequately safeguarded, as is advised in para. 183 of the NPPF.

21. Adverse effect in planning terms of genuine health concerns among the local population (albeit not justified on current evidence) *may* be taken into account, if evidenced. The invariable practice of Inspectors and the Secretary of State, however, is to accord it very little or negligible weight in the planning balance, for the very reason that the validity of those concerns are currently unproven; better dissemination of the safeguards built into the public health regime should allay all but irrationally held belief; and planning permission should not be withheld on the basis of irrational belief, even where genuine.

9.6.4 Operational stage fugitive dust and odours –

The aspects of the proposed development likely to give rise to dust and odour are the delivery and unloading of waste. The closest receptor to the site boundary is Westbury

Dairies. As a place of work, it would normally be treated as a medium sensitivity receptor. However, applying a conservative approach, the ES identifies it as a high sensitive receptor in view of the nature of the processes that take place. Other identified receptors are located further away.

The ES explains the manner in which odours and dust would be controlled as follows –

To control odour and dust emissions, fans would draw air from the Bunker and Reception (Tipping) Hall and into the furnaces to feed the combustion process creating a slight negative pressure. This negative pressure would prevent odours, dust or litter from escaping from the building. Anaerobic conditions within the bunker, which could cause odour, would be prevented by regular mixing of the residual waste by the cranes. Should an unplanned shut-down air would be drawn out of the bunker and Reception Hall via a bespoke Odour Stack fitted with an odour abatement system to remove odour release.

The ES concludes as follows –

The odour source potential is considered to be 'small' as the planned odour containment and mitigation measures embedded in the design of the Proposed Development as set out previously are intended to prevent an unacceptable level of odour beyond the Site boundary. In the event of an unplanned shut-down, the combustion process would not be using air extracted from the odourous areas of the building as combustion air. However, the air would be transferred to the odour abatement system and vent to atmosphere via the dedicated stack. Therefore, the odour source potential would remain small.

The risk of odour from the proposed processes at distances greater than 500m from the source is minimal as odour would dissipate with distance from the source. If odours were to be released from the Proposed Development these would originate from the Tipping Hall. Under calm conditions odour would remain close to this area whereas during turbulent conditions odour would be moved away from the area and dissipate.

The wind roses from Lyneham for 2015 to 2019 …. have been reviewed. There is a distinct peak in frequency of winds from the south west, with a secondary peak in winds from the north-east, winds from other directions occurring with a relatively uniform low frequency. When considering wind direction, receptors located downwind of the peak in wind direction frequency (to the north-east) have the most effective odour pathway. Receptors not located downwind of the peak wind direction have an ineffective pathway.

Excluding Westbury Dairies (OR13), all identified receptors are over 170 m from the Tipping Hall [see following table from the ES 8.18] *…..*

- *OR1 to OR4 are located over 180 m from the source of odour (the Tipping Hall). This is down-wind of the peak in wind directions, but the receptor is at a far enough distance that odour would have dissipated by this point. There will also be some screening provided by the rest of the building. Therefore, the pathway effectiveness to OR1 to OR4 is considered to be 'ineffective'.*
- *OR5 to OR8 are over 170 m from the source of odour (the Tipping Hall) and winds do not frequently blow in this direction. There will also be some screening provided by the rest of the building for OR5 and OR6. Therefore, the pathway effectiveness to OR5 to OR8 is considered to be 'ineffective'.*
- *OR9 to OR11 are located over 230 m from the source of odour (the Tipping Hall). This is down-wind of the secondary peak in wind directions, but the receptors are at a far enough distance that odour would have dissipated by this point. Therefore, the pathway effectiveness to OR9 to OR11 is considered to be 'ineffective'*

- *OR12 is located over 290 m from the source of odour (the Tipping Hall) and winds do not frequently blow in this direction. Therefore, the pathway effectiveness to OR12 is considered to be 'ineffective'*
- *OR13 is located adjacent to the Site and only 20 m from the potential source of odour (the Tipping Hall). Although mitigation measures should control odour, and winds do not frequently blow in the direction of the receptor, because of its close proximity, the pathway effectiveness to OR13 is 'highly effective'.*

The likely odour effect under the worst-case scenario is 'negligible' at receptors with the exception of the Westbury Dairies (OR13), where the effect would be slight adverse.

The IAQM 2018 odour guidance states that 'where the overall effect is greater than 'slight adverse', the effect is likely to be considered significant. Therefore, as the effect at any receptor location is not greater than 'slight adverse', the odour effect of the operation of the Proposed Development is not significant.

These conclusions are agreed by the Council's Public Protection team.

Table 8.18: Likely Magnitude of Odour Effects at Receptors

Receptor		Pathway effectiveness	Risk of odour exposure	Likely magnitude of effect
OR1	Oakfield Business Centre	Ineffective	Negligible Risk	Negligible
OR2	23 Storridge Road	Ineffective	Negligible Risk	Negligible
OR3	Savencia Fromage & Dairy UK	Ineffective	Negligible Risk	Negligible
OR4	Brook Lane 1 (Residential)	Ineffective	Negligible Risk	Negligible
OR5	Brook Lane 2 (Trading)	Ineffective	Negligible Risk	Negligible
OR6	Brook Lane 3 (Trading)	Ineffective	Negligible Risk	Negligible
OR7	Brook Lane 4(Trading)	Ineffective	Negligible Risk	Negligible
OR8	Brook Lane 5 (Residential)	Ineffective	Negligible Risk	Negligible
OR9	Brook Drove 1 (Farm)	Ineffective	Negligible Risk	Negligible
OR10	Brook Drove 2 (Residential)	Ineffective	Negligible Risk	Negligible
OR11	Biss Brook Footpath 1	Ineffective	Negligible Risk	Negligible
OR12	Biss Brook Footpath 2	Ineffective	Negligible Risk	Negligible
OR13	Westbury Dairies	Highly effective	Low Risk	Slight Adverse

On dust, this will be a matter for the Environmental Permit which will require no impact beyond the site boundary. Dust during construction is a matter for the CEMP.

9.6.5 Further specific matters raised concerning Westbury Dairies (Arla)

Objections on behalf of Arla refer to the proposal placing unreasonable restrictions on the dairy which adjoins the application site. The representations state that the proposal either does not take into account or does not adequately take into account the sensitivities of the dairy, which in its production of food requires very large amounts of clean air. Key paragraphs from the representations are set out below ….

…… the processes undertaken at Westbury Dairies require a large quantity of clean air to allow manufacture of a quality foodsafe product. Although incoming air is filtered prior to use, the filter specification was produced based on standard ambient conditions. Should

elevated pollutant, odour or bioaerosol concentrations be present then there is the possibility that these will overload or bypass the filters, resulting in product contamination or taint. This would be prevented from harming the product by Arla, only with closure of the process.

….. this is a significant concern during the normal operation of the EfW proposal. However, the potential for this to occur would be significantly increased during non-standard and/or emergency situations due to the additional emissions associated with these periods.

To avoid product contamination or taint it could be necessary for Arla Foods to cease production the moment there was any indication of increased levels, until pollutant levels reduced to an acceptable level. This would have significant implications for the operator.

To date, the applicant has not submitted any detailed assessment of the potential for product contamination or taint under normal or abnormal conditions in support of the Planning or Environmental Permit applications. It is therefore not possible for Arla Foods or the Council to understand the level of risk associated with different emission scenarios, trigger points for cessation of production, the likelihood of taint or contamination under different operating conditions and the duration of any forced shutdown. ….

A number of expectations were identified within previous reports (Redmore Environmental Report Ref 1596-2c1 dated 21st December 2020). These related to specific management plan documents which would be required to provide detail on how atmospheric emissions would be controlled through non-standard and/or emergency situations and the associated risk to Westbury Dairies should any of the potential scenarios occur. Since production of the Redmore Environmental representations, an Environmental Permit Application has been submitted to the Environment Agency (reference: EPR/CP3803LV/A001) by the Applicant. This was reviewed and a further representation by Redmore Environmental 1596-4c1 dated 8th January 2021 produced and submitted as part of the consultation process. One of the main findings was that the relevant management plans requested had not been provided and emissions during non-standard and/or emergency situations had not been adequately considered. …..

During non-standard and/or emergency situations there is the potential for elevated combustion, odour and bioaerosol emissions. These may be point source releases through the stacks, or fugitive emissions through building openings such as doors or ruptures in the structural fabric. Elevated combustion emissions have been considered to some degree within Appendix E of the Environmental Permit Application 'Abnormal emissions assessment' produced by Fichtner Consulting. However, this has not been submitted in support of the Planning Application and the findings are therefore not available for review by the Local Planning Authority. Nevertheless, the assessment focusses on abnormal combustion emissions emitted from the main stack and does not consider other potential scenarios that could result in releases of odour or bioaerosols, or combustion emissions from other areas of the site. The Applicant has failed to demonstrate that the impacts of its development would be acceptable during non-standard and/or emergency situations based on the information presented or in response to requests from Arla to have the opportunity to review the detail of planned actions within associated management plans.

The representations also state the following –

…. Arla consider this Proposal to simply be in the wrong place. A precautionary approach is needed and there is no clarity that the risks to Arla can be satisfactorily addressed.

The Council's own policy and national policy both require that the Proposal will not prejudice the existing operation of the Dairy or place unreasonable restrictions on its operation. The Applicant has not demonstrated compliance with these policies.

These matters are largely addressed in the preceding sections of this chapter of the committee report covering emissions and related controls/management (paragraphs 9.6.3 – 9.6.6). This section, therefore, addresses the additional matters raised – notably, supporting information and the precautionary principle.

Core Policy WDC2 of the Wiltshire & Swindon Waste Development Control Policies DPD states that proposals for waste management development in the county will be permitted where it can be demonstrated that the proposal firstly avoids, adequately mitigates against, or compensates for significant adverse impacts relating to, notably here, air emissions. To this end the policy requires proposals for waste management development to be accompanied, where necessary, by assessments of the impacts relating to the issues set out. The explanatory notes with the policy refer to the 'precautionary principle', noting that it should be applied where there are threats of serious or irreversible damage. It states –

The Precautionary Principle should be invoked when:

- *There is good reason to believe that harmful effects may occur to human, animal or plant health, or to the environment*
- *The level of scientific uncertainty about the consequences or likelihood of the risk is such that the best available scientific advice cannot assess the risk with sufficient confidence to inform decision-making.*

As referred to earlier in this report, the Wiltshire and Swindon Waste Site Allocations Local Plan allocates the Northacre trading Estate as a location for waste related uses – specifically, Materials Recovery/Waste Transfer Stations, Local Recycling and Waste Treatment uses. In doing so the Plan notes that potential impacts on neighbouring receptors, particularly from odour and bioaerosols, will need to be considered as part of any planning application …. "*sensitivity of some existing units to air quality, particularly the dairy and other food processing businesses, will need to be assessed".*

Paragraph 182 of the NPPF states that planning decisions should ensure that new development can be integrated effectively with existing businesses [and community facilities]. It adds, "… *Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established*".

In the preceding sections of this committee report, consideration is given to the specific issues of emissions, dust, odours, etc. in detail, notably setting out the ways in which operations at the facility would be managed, and the risks to amenity and air quality consequently minimised. Further to this, and in response to the representations from Arla, the applicant's emissions/odours/bioaerosols consultant has produced a supplementary technical report to the Environmental Statement ('Response to Odour Assessment Review and Further Odour Modelling') which further considers the levels of, and resulting impacts of, odours and bioaerosols arising from the facility. The supplementary report is attached in full at appendix 7. Its summary is set out below –

In summary:

- *Additional information has been provided to clarify the assumption that the odour source potential is 'small' which has included further details of the odour mitigation measures included in the design.*
- *A quantitative assessment of odour from the Facility has been carried out. This has shown that the impact of odour at Arla Dairies is well below the Environment Agency*

(EA) criterion of 1.5 OUE/m3 and well below the odour criterion for hypersensitive populations of 1 OUE/m3, and so there would be "no reasonable cause for annoyance". Additional consideration has been made to the maximum 1-hour impact, interannual variability, the likelihood of the odour abatement system operating in the worst-case weather conditions for dispersion, and the assumptions used in the modelling. This has concluded that the results are conservative, and the likelihood occurrence is low, and therefore the risk of odour is not considered to be significant to the operations of Westbury Dairies.

- *A quantitative assessment of bioaerosols from the Facility has been carried out. This has shown that the change in bioaerosols from background levels at Arla Dairies air intake can be considered to be 'insignificant'. Therefore, bioaerosol emissions from the Facility are not considered to be of significant risk to operations at Arla Dairies.*

The results for both the odour and bioaerosol impact assessments are only relevant for periods in which the Facility is offline, when the carbon filter odour abatement system is used. In other operating circumstances, all air from within the tipping hall and bunker is used within the Facility as combustion air and is not released to the atmosphere. Therefore, the predicted impacts are considered to be conservative.

Having regard to this further analysis, which is based on assessments of how the facility would operate and how its emissions would be managed – it is considered that the application has adequately shown that, for the purposes of planning, the proposed facility can operate alongside the dairy without imposing unreasonable restrictions on it. The facility has been designed to ensure outputs (emissions, odours, bioaerosols, etc.) are at levels which are below emissions standards, this when it is both operating and when shutdown for whatever reason. Accordingly, it is not considered that the precautionary principle is invoked. This conclusion is drawn having regard to paragraph 183 of the NPPF which states that the focus of planning decisions should, in any event, be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions.

9.6.6 Vehicle emissions –

During the construction stage the number of construction vehicles is calculated to be 250 AADT of which 50 would be HGVs (AADT is the Annual Average Daily Traffic). When operational the development would receive 110 AADT of which 54 would be HGVs.

The IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality' states that an air quality assessment is required where a development would cause a "significant change" in light vehicles (LDVs) or heavy goods vehicles (HGVs). The IAQM's indicative criteria to progress to an assessment are a change to LDV flows of more than 100 AADT within or adjacent to an AQMA, or more than 500 elsewhere; and a change in HGV flows of more than 25 AADT within or adjacent to an AQMA, or more than 100 AADT elsewhere.

As is evident, the proposed numbers of vehicles are well below the thresholds for assessment. Therefore, the proposed development is not expected to cause a significant change in vehicle related emissions, including within the Westbury AQMA (which is addressed in the Transport section of this report). At the request of the Public Protection Officer, further analysis of potential cumulative effects of the proposal with other committed developments has also been undertaken, the outcome of this continuing to be that the effects would be negligible.

9.6.7 Plume visibility, plume grounding, operational odours, bio-aerosols[14] –

The ES also assesses these matters. On plume visibility and grounding the ES states the following:

…. plume visibility modelling can be used to predict the number of visible plumes grounding. This has shown that a visible plume is not predicted to ground under any meteorological condition. This is due to the relatively high temperature of the release ensuring the plume remains buoyant and disperses effectively in the atmosphere.

On bio-aerosols the ES states the following:

The previous applications for the site considered the risk of bioaerosol generation and the potential to affect the existing air filtration system at Westbury Dairies. The ES for the 2019 Permission included an assessment of the potential release of bio-aerosols. The 2008 planning application for the Northarce RRC including the MBT had required this due to concerns raised by Westbury Dairies and it was therefore echoed in the ES Scoping received from Wiltshire Council in Nov 2014.

This application is seeking permission for advanced thermal treatment plant using moving grate technology. The Facility will accept residual household waste and C&I wastes which generally has a low organic content. Waste will be delivered and unloaded within the tipping hall which would be kept under negative pressure. The air from the tipping hall would be used as combustion air in the Facility. Any bioaerosols in the extracted air would be removed during the incineration process prior to release via the main stack. Therefore, the potential for bioaerosols to be in the waste is low and there is little risk of any releases during normal operations. The risk of bioaerosol release when the Facility is offline during planning maintenance is low as the level of waste in the bunker would be managed to ensure waste would not be left in the bunker for long periods. In addition, the secondary odour abatement system would act to mitigate and disperse any low residual levels In the event of an unplanned shut-down where the Facility cannot be re-started the secondary odour abatement system would be in operation and any waste would be removed for processing at an alternative facility. These measures would be detailed in the Environmental Permit application. Therefore, the potential for bioaerosol releases from the Facility is negligible and not significant.

9.6.8 Air quality / emissions conclusions –

National Planning Policy for Waste advises that when determining waste planning applications, waste planning authorities should: ...*consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B and the locational implications of any advice on health from the relevant health bodies. Waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies*. With regard to 'air emissions, including dust', Appendix B advises that considerations will include the proximity of sensitive receptors, including ecological as well as human receptors, and the extent to which adverse emissions can be controlled through the use of appropriate and well-maintained and managed equipment and vehicles.

[14] A bioaerosol is an airborne collection of biological material. Bioaerosols can be comprised of bacterial cells and cellular fragments, fungal spores and fungal hyphae, viruses, and by-products of microbial metabolism. Pollen grains and other biological material can also be airborne as a bioaerosol. Microbial aerosols are generated in outdoor and indoor environments as a result of a variety of natural and anthroprogenic activities. Wind, rain and wave splash, spray irrigation, wastewater treatment activity, cooling towers and air handling water spray systems, and agricultural processes such as harvesting and tilling are examples of activities that generate bioaerosols outdoors. Indoors bioaerosols are generated and dispersed by mechanical and human activity.

The submitted ES sets out the results of modelling and assessment which demonstrate that the maximum predicted concentrations of all substances emitted comply with relevant air quality objectives at nearby sensitive locations, including residential areas and nature conservation sites, and the adjacent Westbury Dairies. Similar conclusions are drawn in respect of dust and odours.

The ES has been considered by Public Health England (PHE) on behalf of Wiltshire Council's Public Protection Team. The outcome of the consideration is no objection from PHE. PHE concludes the following –

PHE is satisfied that the applicant has approached the environmental impact assessment in a manner consistent with the UK requirements. They have utilised a satisfactory approach and methodology to predict the likely emissions, distribution of a range of key pollutants and the impact on the local environment and receptors.

PHE will further consider the emissions and appropriate control measures when we are consulted as part of the Environmental Permitting process and will make additional comments at that time. We are however satisfied that the applicant has demonstrated that the proposed development can be carried out without any significant impact on health, subject to compliance with UK air quality and emission standards. For that reason, we do not wish to raise any objection to this planning application.

The ES sets out the results of assessments which demonstrate no unacceptable impacts. The overall effect on air quality of emissions to atmosphere is concluded in the Environmental Statement to be insignificant. Construction emissions can be controlled via a CEMP. Process emissions are principally a matter for Environmental Permitting.

9.6.9 Environmental Permitting –

National Planning Policy for Waste advises that when determining waste planning applications, waste planning authorities should: ...*concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced*.

As noted by the Council's Public Protection officer and PHE, the application relates to a process that will require an Environment Agency 'Permit' to operate, under the provisions of the Environmental Permitting Regulations 2016 (EPR). These regulations include the requirements of relevant EU Directives, notably, the Industrial Emissions Directive (IED), the waste framework directive (WFD), and ambient air directive (AAD). EPR requires the operator to use the 'best available technology' to ensure that impacts from the site are acceptable, minimised and are compliant with UK and EU air quality and emissions standards.

The EA also consults Public Health England (PHE). The Council's Public Protection officer has liaised with Public Health England (PHE) regarding the planning application and the in-common response is that that the proposed plant would be subject to a permit issued by the Environment Agency, and this would govern emissions and impacts from the thermal treatment process and ancillary waste handling activities. The Council's Public Protection officer is satisfied, along with PHE, that the applicant has demonstrated that the proposed development can be carried out without any significant impact on health, subject to compliance with UK air quality and emission standards. PHE's response is attached as Annex 2 to this report.

PHE is satisfied that the applicant has approached the environmental impact assessment in a manner consistent with the UK requirements. The applicant has utilised a satisfactory approach and methodology to predict the likely emissions, the range of key pollutants and the impact on the local environment and receptors.

As part of the environmental permitting process, the EA assess all applications to ensure that they meet the requirements of the Environmental Permitting Regulations. During assessment, the design of the plant is reviewed, as well as how it will be operated, the emissions it will generate (to air, water and land) and whether emissions will have an adverse impact on people living nearby and the natural environment.

Concern has been raised by some interested parties about the monitoring of the emissions from the facility. Monitoring is part of the 'Permitting' process; however, as noted in a recent EA briefing note (annex 5 to this report) on particulate matter associated with similar facilities, plants are required to continuously measure total particulate matter (TPM). TPM includes particulates of all sizes including PM_{10}, $PM_{2.5}$, PM_1 etc. as well as ultrafine particles (i.e. particles with a diameter of less than 0.1 micrometres). When this is considered alongside the assumption made by the EA at the 'Permitting' stage that all TPM could be PM_{10}, or all be $PM_{2.5}$ or PM_1 (and so on), the concern is robustly addressed. On this, regard must also be had to the legal opinion previously quoted (and at annex 6).

In order to achieve the limits set by the Industrial Emissions Directive (IED), the operator would need to show that they will use Best Available Techniques (BAT). The European Commission produces best available technique reference documents or BREF notes. They contain 'best available techniques' (BAT) for installations such as this. They are subject to review and updating.

Once issued energy from waste permits can set controls on a range of factors. These include detailed requirements through the commissioning phase of the plant, including reports on the performance of the facility against the conditions of the Permit. Additionally, Permits condition and control:

- Waste inputs – type, quantities, annual throughput;
- Process controls – how activities on-site will be managed;
- Emissions limits – air, land and water;
- Performance monitoring – ongoing measurement of activity, by submission of extensive records regarding all aspects of the process.

As is evident, Environmental Permitting provides a robust system for application, approval, monitoring and enforcement of matters relating to waste and related emissions. It is at least in part for this reason that National Planning Policy for Waste can advise that *Waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies*, etc..

In response to further questions raised in representations relating to emissions and public health, Public Health England has also provided further answers. For completeness the questions and PHE answers are set out in the following box -

1) Why can't you rule out adverse effects to health and who does take responsibility if the public are affected both mentally and physically by the pollution from the incinerator?
2) Why do you consider what the potential effects on people living very close to an incinerator are likely to be very small? What distance is very close? How small are the effects?
3) Some modern incinerators are being refused permits because they don't meet the EU standards. Has Public Health England investigated the reasons why?

4) Why do you not give a 100% guarantee that there are no adverse health effects? Your comments imply that there is a chance of this happening but hopefully it won't happen in this instance.

For some of the pollutants emitted from incinerators, it is not possible to identify a threshold for effect, and thus any increase in concentration could be assumed to be associated with some effect on health. However, the contribution from incinerators to the local concentration of these air pollutants is only very small and therefore any potential risk to health of those living nearby would be very small. Such small changes in risk, or impact on background rate of disease in the local area, are unlikely to be measurable with modern epidemiological techniques.

As part of the Environmental permit process an assessment will be made of the impact of the emissions from the incinerator on local air pollutant levels including to the local population around the incinerator. When we consider the subsequent Environmental permit application PHE will ensure that the assessment area extends for an acceptable distance around the energy from waste plant and that appropriate points of maximum impact have been chosen, taking into account stack height and local meteorology.

PHE are not aware of any modern incinerators in the UK where a permit has been refused specifically as a result of failing to meet EU standards. You may be referring to a recent case regarding a site in Essex with a hearing scheduled for 13th October 2020. In this case, a permit was initially refused on the basis of an inadequate stack height (35m rather than the Environment Agency agreed 58m). The situation arose when the operator varied their permit application in an attempt to comply with restrictions imposed by the local planning authority.

As this matter is currently awaiting a decision it would be inappropriate for PHE to comment further at this time.

Whilst PHE act as a consultee for national and local planning and Environmental permitting regimes, the decision to approve an environmental permit application is the responsibility of the regulatory authority i.e. the Environment Agency. We would assess the likelihood of emissions from the installation impacting on public health and recommend compliance with the current emissions regulations but would not be party to the final decision. ……

5) As the application does not confirm that there will be a release of pollutions above the permitted levels it's very much a trial and error process, especially during the commissioning stage. Is this level of unpredictable risks acceptable or are you going to wait and see what happens?

The commissioning process will also be subject to conditions in the associated Environmental Permit. The need to commission and adjust a new process is common to many industrial installations and is not specific to the issue of incineration or energy from waste. Any emissions in exceedance of the usual limits are likely to be of short duration and frequency and unlikely to have a significant impact on wider public health. Typically, how often and for how long any Environmental Limit Values can be exceeded is specified in the permit.

6) There are no air pollution assessments of levels of air pollution from the incinerator mixing with other existing air pollution sources in the area. Is this not an area for concern for Public Health England?
7) Do you know what other air pollutants are in the area?
8) Do you or the Environmental Agency monitor the pollution levels 24/7 and can the public have access to the monitoring reports live via a link?

Local background emissions are considered as part of the Environmental permit process. The applicant will be required to submit a summary of the current background levels of a range of pollutants and an assessment of the likely additional contribution that will result from the proposed process. The sum of the background and any increase from the new plant will be compared to the published emission limit values (ELV). Public Health England is satisfied that the current ELV's are protective of public health.

Neither the Environment Agency nor Public Health England undertake routine 24 hour monitoring of permitted sites. The permit will contain requirements relating to continuous and scheduled monitoring requirements which must be undertaken by the operator as well as the actions that should be taken if specified limits are exceeded. The possibility of imposing a requirement for the publication of live monitoring reports is not something on which PHE can advise. ……

Having considered the likely impacts on the local environment and amenity taking into account the criteria set out in Appendix B to National planning policy for waste, and being satisfied, in light of the consultation responses from the relevant bodies, that control processes, health and safety issues or emissions can or will be adequately addressed by the relevant regulatory body, it is considered the development is an acceptable use of the land in health and amenity terms, in accordance with its development plan allocation as a site suitable for waste management operations.

9.6.10 Flies

A number of representations have referred to the potential for stored waste materials to attract flies. Control of flies is principally a matter for good site management, and it cannot be assumed that there would not be good management in this case. It follows that concerns in relation to this matter would not amount to a sustainable reason for refusing planning permission. As already stated, National Planning Policy states that '*When determining waste planning applications, waste planning authorities should: …concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced'*. The Environment Agency has advised that when issuing an Environmental Permit for this site it will require the operator to take all appropriate measures to prevent or minimise the flies and (and, for that matter, vermin). It follows that concerns in relation to the potential for flies would not amount to a sustainable reason for refusing planning permission. For similar reasons the risks of fires at the site cannot amount to a planning reason for refusal.

Part of the Environmental Permitting process requires detailed management systems to be developed, these include site specific management, monitoring and mitigation plans for noise, dust, odour, vermin, flies and also a Fire Prevention Plan to be approved.

9.6.11 Other residential amenity considerations –

The application site lies within an industrial setting where there are other large 'factory' buildings. Within this context, and in view of the significant separation from the nearest residential properties, it is not considered that the proposed buildings and stacks in themselves would have a harmful impact in terms of overlooking, overshadowing and/or being overbearing.

9.7 Heritage Assets

9.7.1 Policy background –

The Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty upon local planning authorities in determining applications for development affecting listed buildings to have special regard to the desirability of preserving the special interest and setting of the listed building.

Core Policy 58 (ensuring the conservation of the historic environment) of the Wiltshire Core Strategy states that new development should protect, conserve and where possible enhance the historic environment.

Paragraph 194 of the NPPF states that when considering the impact of proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation; and the more important the asset, the greater the weight should be. Substantial harm to or loss of designated heritage assets of the highest significance should be wholly exceptional.

Paragraph 195 states that where a proposed development would lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that, in particular, the substantial harm or loss is necessary to achieve substantial public benefits that outweigh the harm or loss. Paragraph 196 states that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal. Paragraph 197 continues that the effect of an application on the significance of a non-designated heritage asset should be taken into account and a balanced judgment made.

Historic England defines significance as "*the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting*". Setting is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

9.7.2 Heritage Assessment Update –

The ES includes a chapter relating to heritage, informed by a Heritage Assessment Update. This Update relies on the Heritage Impact Assessment which accompanied the 2018 planning application, and effectively updates this in the context of the revised proposal now.

The Update identifies no heritage assets on the application site, which is agreed. Further afield there are various assets, although most – such as listed buildings within Westbury town centre – are sufficiently distanced from the site and/or have such intimate settings so as to be not affected by the proposal.

The impact on five 'within 2km' assets have been assessed – Brook Farmhouse (Grade II listed building), Storridge Farmhouse (Grade II), Brook Hall (Early Wing (Grade I), the Hall (Grade II) and the Barn (Grade II)), the 'Medieval Settlement and associated field systems of Brook Farm' (Scheduled Monument), and 'the Moated Site 400m east of Penleigh House (Scheduled Monument). Beyond 2km other sites with inter-visibility have also been assessed – 'Bratton Camp Iron Age hillfort, the Westbury White Horse, barrows and trackways on Bratton Down' (Scheduled Monument), 'The Devil's Bed and Bolster long barrow' (Scheduled Monument), Park Court in Upton Scudamore (Grade II* listed building), and 'Bowl Barrow north of White Horse Farm' (Scheduled Monument).

In relation to the listed buildings the ES states that there would be inter-visibility with some, but the separations and/or the context (where there are already other industrial buildings within views) means that the settings would continue to not be detrimentally affected by the current proposal. The ES concludes that the effects in terms of heritage significance are the

same as previously predicted, and in no case is the ability to appreciate the significance of any asset considered to be diminished or harmed.

The Council's Conservation Officer broadly agrees, although considers that there would, in fact, be a degree of harm to the setting of Brook Farm, which should be considered as 'less than substantial'. In such situations the NPPF requires a balanced approach, with any 'harm' caused to the significance of the heritage asset being weighed against the public benefits which may arise through the implementation of the development. In this case there are public benefits – notably the delivery of a handling and disposal service for the area's waste, in accordance with the sustainable development objectives of the NPPF and on land allocated for this purpose. This benefit and circumstance 'tips the balance' in favour of the development rather than in favour of the minor harm to the setting of the listed building.

In relation to the Scheduled Monuments, similar conclusions are drawn – either there is no inter-visibility, or the wider settings are already influenced by established industrial development, railway lines or the urban form of Westbury as a whole. Views from the site towards the closest monument – Moated Site 400m east of Penleigh House – are not considered to contribute towards its significance, which relates mostly to its historic and archaeological interest. It follows that there would be no harm caused to these assets.

The White Horse monument is approximately 5km from the site, and at this distance, and in the context of the town, it is not considered that any harm would be caused to its setting.

For similar reasons there would be no harmful impacts on non-designated heritage assets.

The Council's Conservation Officer has assessed heritage assets independently. The outcome is the same – that is, the impact on assets is neutral or, in one or two cases (notably Brook Farm), the harm is less than substantial, lessened further by the revisions to the design of the development now proposed. Where the harm is less than substantial the public benefits arising from providing the EfW facility tip the balance in favour of the proposal in any event.

To conclude, it follows that there are no grounds for refusing planning permission for heritage related reasons.

9.8 Ecology and Nature Conservation

The Wildlife and Countryside Act 1981 forms the main body of nature conservation legislation in England. Core Policy 50 ('Biodiversity and geodiversity') of the WCS requires development proposals to demonstrate how they will protect features of nature conservation and geological value.

The Environmental Statement includes a chapter on biodiversity. It is informed by surveys carried out at the site (an initial Phase 1 survey in 2014, with further surveys in 2018, 2019, and May 2020).

In view of the circumstances of the site – essentially open land within an industrial estate – the ES reasonably concludes that the site contains common/widespread habitat of non-high conservation status; no positive signs of any wildlife were recorded during the surveys.

During the 2018 survey of the site, a one-hole outlier badger sett was observed just outside of the south-west boundary of the site. This sett was shut down in November 2018 under Natural England licence. There is no subsequent evidence of badgers inhabiting the site.

An occupied artificially created sett remains active to the south of the MBT; this is nor effected by the current proposal.

In the Air Quality chapter, the ES also considers the effect of emissions on ecologically sensitive receptors – specifically, Salisbury Plain SPA, Picket and Clanger Wood SSSI and the High Wood / Hazel Wood and Round Wood local sites. No adverse effects were identified to these sites.

The ES concludes that there will be no significant adverse ecological impacts associated with the proposal, with badgers and nesting birds being protected with appropriate mitigation during the construction phase, and this is agreed.

9.9 Drainage

The application site lies within Flood Zone 1 and so has a low probability (less than 1 in 1,000 annual probability) of river [or sea] flooding.

The Northacre Industrial Estate was designed with a surface water drainage system to cope with all developments within it, and the proposal would connect to this. The operations on the site would have their own contained drainage as well and would conform to standard requirements in terms of interceptors and flow charge rates. It follows that there are no surface water drainage issues arising.

Foul water would discharge to mains, and there is no objection to this from Wessex Water. This is subject to no surface water connections to the foul system.

10. Conclusion

In view of the application site lying within an industrial estate which is designated as a Strategic Scale Waste Site in the Wiltshire & Swindon Waste Site Allocations Local Plan, there can be no objection to the principle of a 'strategic' waste recovery (energy from waste) facility here. Indeed, it is logical to contain such a facility on a site adjacent to another now established waste processing facility which is producing a fuel component for the proposed waste recovery process – namely the Mechanical Biological Treatment operation. Accordingly, there are benefits for sustainability – both in environmental and economic terms – in allowing a waste recovery facility in this location.

In terms of climate change policy, the proposal is not 'carbon zero' or 'carbon neutral'. The proposal will offset some of its emissions – through production of electricity and, potentially in the future, use of the hot water/steam. It will also remove a significant proportion of the emissions associated with the transport of SRF to mainland Europe and contribute towards reducing waste presently being disposed of in landfill. Current planning policy does not preclude energy from waste development – indeed it remains a 'Recovery Process' in the Waste Hierarchy. Government policy is to move to zero landfill, and EfW treatment of residual waste to recover energy from that waste is one of the recognised and acceptable measures relevant to achieving this. EfW is, for planning policy purposes, a 'low carbon' energy source, even if it is not a 'no carbon' energy source and, so, is part of the moves to tackle the general 'climate change emergency'.

On the path to achieving zero carbon in all probability there will be future changes to legislation, to require higher levels of environmental control care of technology, CCS, etc.. These will likely be matters for the Environmental Permitting process; Environmental Permits are subject to reviews from time to time to allow for this. But at this point in time – and with

due regard to present planning policy which is supportive of this form of development, both nationally and locally – the evolving climate change policy position does not amount to a sustainable planning reason for refusing permission.

It is relevant that the application site already benefits from planning permission for an ATT (energy from waste) facility granted in 2019. This said, although this provides a lawful fallback position, the planning permission can be afforded only limited weight as it is unlikely to be implemented for various reasons, including viability. The current proposal seeks to change the operation to moving grate combustion. This is still thermal treatment of waste, is still energy from waste, and is still a Recovery Process in terms of the Waste Hierarchy.

The configuration of the proposed structures on the site is different – notably the overall height of the principal building is slightly higher than the 2019 permission. However, the change is modest in the overall picture, and raises no landscape or visual amenity issues that could justify a refusal decision for this reason, particularly when all other material considerations are considered in the mix.

In terms of other detail, the planning application and the Environmental Statement demonstrate that there would be no adverse impacts – or significant effects – on matters of acknowledged importance – notably, the capacity of the highway network, the amenities and well-being of neighbours and the wider Westbury community, heritage assets, ecology and drainage. Specifically, on emissions, this is one of various technical matters for separate Environmental Permitting, but in any event the application has demonstrated that the development would operate in accordance with relevant standards and regulations.

Environmental Statement –

Environmental information relevant to the proposal has, in the first place, been examined by the applicant, and the information and outcomes of the examination are set out in the Environmental Statement. Wiltshire Council has undertaken its own examination and, where necessary, supplementary examination of the information in the Environmental Statement. Based on its examination – as set out in this report – Wiltshire Council can reach a complete and reasoned conclusion on the effects of the proposal on the environment.

The conclusion is as set out above – that is, there are no effects of such significance to prevent planning permission from being granted in this case. Where there are effects – for example, the effects on air quality, landscape and transport – these are not significant adverse effects.

Monitoring measures are not required beyond standard planning conditions relating to, for example, landscaping, highways works, and noise monitoring.

This conclusion in respect of the Environmental Statement process is up to date in the context of this ES, produced in August 2020.

RECOMMENDATION

Having taken into account the environmental information, the recommendation is to grant planning permission subject to the following conditions.

In the event of the committee supporting the recommendation, the planning permission will not be issued until the application has been referred to the Secretary of State for his consideration as to whether it should be called-in for his determination. In the event of the committee making a different decision the referral process will not apply.

1 The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

REASON: To comply with the provisions of Section 91 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004.

2 The development hereby permitted shall be carried out in accordance with the following approved plans:

1409_PL110 (Proposed Site Plan) dated 30/07/2020
1409_PL111 (Site Layout) dated 3/07/2020
1409_PL120 (Proposed Main Facility Ground Floor Plan) dated 30/07/2020
1409_PL130 (Proposed Main Facility Roof Plan) dated 30/07/2020
1409_PL140 (Office & Admin Plans 00,01,02) dated 30/07/2020
1409_PL141 (Office & Admin Plans 03,04,05) dated 30/07/2020
1409_PL150 (Fencing Plan) dated 30/07/2020
1409_PL201 (Proposed Site Sections) dated 30/07/2020
1409_PL310 (Proposed Main Facility North East Elevation) dated 30/07/2020
1409_PL311 (Proposed Main Facility South East Elevation) dated 30/07/2020
1409_PL312 (Proposed Main Facility South West Elevation) dated 30/07/2020
1409_PL313 (Proposed Main Facility North West Elevation) dated 30/07/2020
1409_PL314 (Proposed Main Facility North West Elevation (ACCs removed)) dated 30/07/2020
1409_PL400 (ACC Elevations) dated 30/07/2020
1409_PL401 (Weighbridge Gatehouse Plans & Elevations) dated 30/07/2020
1409_PL402 (Fire Water Tan Plan & Elevations) dated 30/07/2020
1409_PL404 (Emergency Diesel Generator Elevations) dated 30/07/2020
1409_PL405 (Fuel Oil Tank & Ammonia Hydroxide Tank Elevations) dated 30/07/2020
1409_PL406 (Transformer & Substation Plans) dated 30/07/2020
1409_PL407 (Transformer & Substation Elevations) dated 30/07/2020
1409_PL408 (Dirty Water Pit Plan & Elevations) dated 30/07/2020
1409_PL409 (Bicycle Shelter Plan & Elevations) dated 30/07/2020
1409_PL410 (Fencing Elevations) dated 30/07/2020
1409_PL411 (Conveyor Plan & Elevations) dated 30/07/2020
1409_PL412 (Ramp Elevations) dated 30/07/2020
1409_PL413 (Odour Abatement System Elevations) dated 30/07/2020
1409_PL414 (Gate Elevations) dated 30/07/2020
2778-01-01 (Landscape Plan) dated 08/2020
IMA-19-208B (Proposed Site Access Arrangement & Visibility) dated 05/2020

REASON: For the avoidance of doubt and in the interests of proper planning.

3 Notwithstanding the details set out in the application particulars, no above ground level construction works for the Main Facility shall commence on site until details of the colours for the facility's external cladding have been submitted to and approved in writing by the Local Planning Authority. Development shall be carried out in accordance with the approved details.

REASON: These details are required to be agreed with the Local Planning Authority before development commences in order that the development is undertaken in an acceptable manner, in the interests of visual amenity and the character and appearance of the area.

4 With the exception of solid recovered fuel delivered to the site via conveyor, the un-loading, storage and re-loading of waste materials (both in-coming and out-going) shall take place inside the buildings hereby approved only, and shall not take place at, on or over any other parts of the application site.

REASON: To comply with the terms of the planning application and its justification, and to ensure the amenities of the wider environment are safeguarded.

5 The total tonnage of waste material managed by the site will not exceed 243,000 tonnes in any twelve-month period. No more than 191,000 tonnes shall be delivered by road. The remainder shall be residual waste delivered directly from the adjacent Mechanical Biological Treatment Plant.

REASON: To ensure that the development substantially accords with the terms of the Transport Assessment and Environmental Statement which accompany the planning application, and their conclusions that this scale of operation would not cause harm to matters of acknowledged importance.

6 A record of the quantity (in tonnes) of waste materials delivered to the site and all the residues from the facility despatched from the site shall be maintained by the operator of the site and made available to the local planning authority upon request. All records shall be kept for at least 36 months.

REASON: In order that the local planning authority can monitor the approved development.

7 Only feedstock which is non-hazardous residual waste that arises following recycling shall be used as fuel for the Energy from Waste facility hereby approved.

REASON: Waste material outside of the aforementioned would raise alternate additional environmental concerns, which would need to be considered afresh.

8 Heavy Goods Vehicle (HGV) deliveries to and removals from the site of waste materials shall be limited to the following times:

Monday to Friday: 07:00 to 22:00
Saturdays: 07:00 to 17:00

There shall be no deliveries or removals on Sundays or Bank Holidays.

REASON: To safeguard the amenities of the wider area.

9 If within a period of 9 months of the receipt of first waste for testing and commissioning of the combustion plant the facility has not commenced export of electricity to the electricity distribution grid, then the facility shall immediately cease operation. The facility shall then only re-commence operation when such re-commencement coincides exactly with the commencement of export of electricity to the electricity distribution grid.

REASON: To comply with the terms of the application and its related justification – which is for an energy from waste facility – in order to ensure it is, and it remains, a ‘Recovery’ process in the Waste Hierarchy.

10 All soft landscaping comprised in the approved details of landscaping on 2778-01-01 (Landscape Plan) dated 08/2020 shall be carried out in the first planting and seeding season following the first operation of the facility or the completion of the development whichever is the sooner; All shrubs, trees and hedge planting shall be maintained free from weeds and shall be protected from damage by vermin and stock. Any trees or plants which, within a period of five years, die, are removed, or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing by the local planning authority. All hard landscaping shall also be carried out in accordance with a programme to be agreed in writing with the Local Planning Authority prior to receipt of first waste for testing and commissioning.

REASON: To ensure a satisfactory landscaped setting for the development and the protection of existing important landscape features.

11 Prior to first delivery of any waste to the site, including for testing, the access, turning area and parking spaces shall have been completed in accordance with the details shown on the approved plans. The areas shall be maintained for those purposes at all times thereafter.

REASON: In the interests of highway safety.

12 No permanent external lighting shall be installed on site until plans showing the type of light appliance, the height and position of fitting, illumination levels and light spillage in accordance with the appropriate Environmental Zone standards set out by the Institute of Lighting Engineers in their publication "Guidance Notes for the Reduction of Obtrusive Light" (ILE, 2005)", have been submitted to and approved in writing by the Local Planning Authority. The approved lighting shall be installed and shall be maintained in accordance with the approved details and no additional external lighting shall be installed.

REASON: In the interests of the amenities of the area and to minimise unnecessary light spillage above and outside the development site.

13 There shall be no surface water discharge connection to the foul water network.

REASON: To safeguard the integrity of the foul water network and prevent flooding.

14 Prior to commencement of works for the construction of buildings and internal roads, a vehicle tracking study shall be undertaken to ensure that all circulatory routes and the ‘manoeuvring apron’, as illustrated on drawing 1409_P111, are sufficient to accommodate the necessary HGV movements. Included within this study should be a vertical assessment of HGV access to the adjacent Mechanical Biological Treatment plant. Details of any alterations found to be necessary shall be submitted to the local planning authority for approval in writing, and thereafter the circulatory routes and manoeuvring apron shall be constructed as approved.

REASON: To ensure that the proposals operate as assessed and to ensure that internal operation does not affect external highway networks.

15 No development hereby approved shall take place until a site specific Construction Environmental Management Plan has been submitted to and been approved in writing by the local planning authority. The plan must demonstrate the adoption and use of

the best practicable means to reduce the effects of noise, vibration, dust and site lighting during construction. The plan should include, but not be limited to:

- Procedures for maintaining good public relations including complaint management, public consultation and liaison

- Arrangements for liaison with the Council's Public Protection Team

- In accordance with BS 5228:2009+A1:2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' construction noise shall not exceed the levels provided below during the agreed daytime hours (07:30 – 18:00 weekdays and 08:00 – 13:00 Saturdays) at the closest points to the curtilages of the residential sensitive receptors listed below, accessible by the applicant or his consultant as well as the WPA at a height of 1.2m to 1.5m above local ground height. The measurement should be in free-field conditions, e.g. at least 3.5m away from the nearest reflecting surface other than the ground.

  1. Orchard House 65dB LAeq,T
  2. Crosslands/Brookfield 65dB LAeq,T
  3. Storridge Road 70dB LAeq,T
  4. Oldfield House 70dB LAeq,T
  5. Brook Lane 70dB LAeq,T
  6. Brook Cottage 65dB LAeq,T
     ["T" refers to the relative operating hours]

- In accordance with BS5228-1:2009+A1:2014 outside the hours of 07:30 – 18:00 weekdays and 08:00 – 13:00 Saturdays, construction activities shall only be carried out, following agreement with the Local Planning Authority, which are compliant with the following noise limits:

  - During weekday evenings between the hours 18:00 – 23:00; Saturdays between 13:00 – 23:00 and Sundays between 08:00 – 23:00 the maximum noise limit from construction activities when measured at any nearby residential receptor shall not exceed 55 dB $L_{Aeq,T}$.
  - During the night-time/daytime on weekdays between the hours 23:00 – 07:30 and Saturdays/Sundays between 23:00 - 08:00 the maximum noise limit from construction activities when measured at any nearby residential receptor shall not exceed 45 dB $L_{Aeq,T.}$

  when measured at the closest points to the curtilages of the residential sensitive receptors listed above, accessible by the applicant or his consultant as well as the LPA at a height of 1.2m to 1.5m above local ground height. The measurement should be in free-field conditions, e.g. at least 3.5m away from the nearest reflecting surface other than the ground."

- Construction deliveries to and removal of plant, equipment, machinery and waste from the site must only take place within the permitted hours detailed above unless otherwise agreed with the Local Planning authority.

- Procedures for emergency deviation of the agreed working hours.

- Mitigation measures as defined in BS 5528: Parts 1 and 2 : 2009 Noise and Vibration Control on Construction and Open Sites shall be used to minimise noise disturbance from construction works. These shall include –

- Careful choice of piling rigs to minimise noise - where piling is required this must be continuous flight auger piling wherever practicable to minimise impacts
- The location and use of generators and temporary site accommodation and ensuring plant is locating away from nearest sensitive receptors or in locations which provide good screening in the direction of sensitive receptors
- Use of broadband noise reverse alarms (where practicable) on all mobile plant/vehicles;
- The cutting or other processing of building materials on site;

- Control measures for dust and other air-borne pollutants.

- Measures for controlling the use of site lighting whether required for safe working or for security purposes.

- A programme for the construction of the consented acoustic screen at the north eastern boundary, to be at an early stage of the construction programme to provide screening benefit to the residential noise sensitive receptor.

- A scheme for the management of construction traffic and the transportation and storage of construction materials and wastes, to include the following details -

  - Areas for the parking of vehicles of site operatives and visitors;
  - Areas for the loading and unloading of plant and materials;
  - Areas for the storage of plant and materials used in constructing the development;
  - wheel washing facilities;
  - measures to control the emission of dust and dirt from construction traffic during construction;
  - Pre-condition Photo survey (of affected highways).

- A scheme for the recycling of waste materials (if any).

- Construction traffic routes, c/o a 'Construction HGV Routing Plan'.

REASON: In the interests of the amenities of surrounding occupiers during the construction of the development.

INFORMATIVE: Pre-condition Survey – a photographic pre-condition highway survey to be carried out along the full length of Stephenson Road and copies of pre and post condition survey to be supplied to the local planning authority.

The applicant is advised that the Highway Authority will pursue rectification of any defects identified by the highway condition survey which can be attributed to the site construction traffic under the provision of S59 of the Highways Act.

16 Prior to first delivery of any waste to the site, including for testing, a Transport Plan for the routeing of HGV's to and from the site shall be submitted to the local planning authority and approved in writing. The Transport Plan shall include details of implementation and monitoring, and shall be implemented in accordance with the written approval thereafter. The results of the implementation and monitoring shall be

made available to the local planning authority on request, together with any changes to the Plan arising from these results

REASON: To accord with the terms and evidence submission of the planning application and to ensure that the development contributes towards a reduction in emissions within the Air Quality Management Area as required by the emerging Air Quality SPD and Core Policy 55 of the Wiltshire Core Strategy and limits impact upon sensitive areas of the highway network in accordance with Core Policies 60, 61, 62 and 65.

INFORMATIVE: Failure to comply with the Transport Plan may result in penalty as arising from the application of appropriate legislation.

17 No part of the development hereby approved shall be first brought into use until a Green Travel Plan has been submitted to and approved in writing by the Local Planning Authority. The Travel Plan shall include details of implementation and monitoring and shall be implemented in accordance with these agreed details. The results of the implementation and monitoring shall be made available to the Local Planning Authority on request, together with any changes to the plan arising from those results.

The Travel Plan shall include provision for car sharing and for ultra low energy vehicle infrastructure (electric vehicle charging points).

REASON: In the interests of air quality and reducing vehicular traffic to the development.

18 The rating level (LArTr) of the noise emitted from the proposed development shall not exceed the established representative background sound level (LA90T) during daytime [07:00 to 23:00] and night-time [23:00 to 07:00] periods, with the exception of R6 Brook Cottage (as defined in Chapter 7 [Noise and Vibration] of the Environmental Statement) where the rating level of noise shall not exceed the representative background noise level during the daytime [07:00 to 23:00] and only exceed the representative background sound level by a maximum of 3dB during the night time [23:00 to 07:00]. The rating level shall be determined by measurement and/or calculation at the boundary of noise sensitive residential receptors [receptors R1 to R6 (as defined in Chapter 7 [Noise and Vibration] of the Environmental Statement). Measurements shall be made in accordance with BS4142:2019 once the plant is operational. Where the site specific noise level shall be expressed as an LAeq 1 hour during the daytime [07:00-23:00] and shall be expressed as a LAeq 15 minutes during the night [23:00-07:00].

For the purposes of this condition ‘operational’ is defined as the point in time when thermal treatment of waste commences other than if this thermal treatment is for the purposes of initial testing of any plant or machinery

REASON: To protect local amenity from the adverse effects of noise.

19 Prior to the development hereby approved becoming first operational, a noise-mitigation scheme shall be submitted to the local planning authority for approval in writing detailing specific measures that will be implemented to ensure that any noise associated with the development will deliver the level of attenuation as modelled and assumed within section 7.5.1 (Incorporated Mitigation) and section 7.6.3 (Additional mitigation) as set out in Chapter 7 [Noise and Vibration] of the Environmental

Statement. The scheme shall be assessed and designed by a competent person with at least 5 years' experience in the field of industrial and environmental acoustics and who is a practicing member of the Institute of Acoustics. The scheme shall be implemented fully and retained and maintained for the lifetime of the development. For the purposes of this condition 'operational' is defined as the point in time when thermal treatment of waste commences other than if this thermal treatment is for the purposes of initial testing of any plant or machinery.

REASON: To protect local amenity from the adverse effects of noise.

20 Prior to receipt of first waste for testing and commissioning, a screen bund shall be constructed and completed in accordance with the approved drawing, NOR-LP02 Rev A as approved in 18/09550/FUL and thereafter permanently retained for the lifetime of the development.

REASON: To protect local amenity from the adverse effects of noise.

21 Prior to receipt of first waste for testing and commissioning a pest management plan (for the management of flies, vermin, etc., should they arise) shall be submitted to the local planning authority for approval in writing. Thereafter, the approved plan shall be implemented as approved, if/as necessary.

REASON: To safeguard amenity.

22 The development hereby permitted shall be carried out strictly in accordance with the Mitigation Measures for biodiversity set out in the 'Biodiversity' chapter (chapter 6) of the Environmental Statement dated August 2020 accompanying the planning application.

REASON: To safeguard wildlife.

INFORMATIVE: Environmental Permitting - this activity will require a bespoke installation environmental permit issued by the Environment Agency (EA). As part of the environmental permitting process, the EA assess all applications to ensure that they meet the requirements of the Environmental Permitting Regulations. During assessment, the design of the plant is reviewed, as well as how it will be operated, the emissions it will generate (to air, water and land) and whether emissions will have an adverse impact on people living nearby and the natural environment. The EA do this by consulting partner organisations, such as Natural England (experts on impacts on wildlife) and Public Health England (experts on human health impacts). Emissions limits and techniques used to protect the environment and human health are set by the EU Industrial Emissions Directive (IED). In order to achieve the limits set by the IED the operator will need to show that they will use Best Available Techniques (BAT). The EA cannot set environmental permit conditions that go beyond what is specified by the IED and BAT.

Background Papers –

Annex 1: Non-Technical Summary of the Environmental Statement (August 2020)
Annex 2: Public Health England response to planning application
Annex 3: Air Quality chapter of Environmental Statement

Annex 4: National Planning Policy for Waste
Annex 5: Environment Agency Briefing Note
Annex 6: Legal opinion

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Northacre

RENEWABLE ENERGY

The Northacre Energy from Waste Facility, Stephenson Road, Northacre Trading Estate, Westbury

Amended Proposal

ENVIRONMENTAL STATEMENT
VOLUME 4: NON-TECHNICAL SUMMARY

This Document has been prepared in support of the application of full planning permission in accordance with the provisions of the Town and Country Planning Act 1990 for the development of an amended iteration of the Northacre Energy from Waste facility. The application and associated documentation have been produced and co-ordinated by AXIS with technical inputs from:

- AXIS –, Landscape and Visual, Socio-Economics;
- Fichtner – Air Quality and Human Health;
- A D Ecology and Argus Ecology – Ecology and Nature Conservation;
- NVC – Noise and Vibration;
- Wessex Archaeology -Archaeology / Cultural Heritage –
- Floodline - Surface Water and Flood
- IMA Transport Planning - Traffic and Transportation

August 2020

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FOREWORD

This Environmental Statement is submitted in support of a planning application made by Northacre Renewable Energy Limited for the construction and operation of an amended iteration Northacre Energy from Waste Facility (the 'Northacre Facility') on land off Stephenson's Road, Westbury.

The Environmental Statement has been prepared in accordance with the Town and County Planning (Environmental Impact Assessment) Regulations 2017 and comprises the following documents:

- The Environmental Statement Main Report (Volume 1), which contains the detailed project description; an evaluation of the current environment in the area of the Northacre Facility; the likely significant environmental impacts of the scheme; and details of the proposed mitigation measures which would alleviate, compensate for, or remove adverse impacts identified in the study. Volume 1 also includes a summary of the overall likely significant environmental impacts of the Northacre Facility;

- Illustrative Figures (Volume 2) which contains all relevant schematics, diagrams and illustrative figures;

- Technical Appendices (Volume 3), which include details of the methodology and information used in the assessment, detailed technical schedules and, where appropriate, raw data;

- This Non-Technical Summary (Volume 4), contains a summary of the Environmental Statement, expressed in non-technical language.

All of the planning application documentation, including the Environmental Statement, can be downloaded free of charge from the planning portal on Wiltshire Council's web site. Hard copies of the Environmental Statement, as a four Volume set, are available at a cost of £400 by writing to AXIS, Camellia House, Water Lane, Wilmslow, Cheshire, SK9 5BB. Alternatively, the Non-Technical Summary can be purchased on its own from the same point of contact for £15, with the entire Environmental Statement available for purchase on a CD for £15.

1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

1.1.1 This Non-Technical Summary of the Environmental Statement is submitted in support of the planning application made by Northacre Renewable Energy Limited for the construction and operation of the amended energy from waste facility (the 'Northacre Facility') on land to the west of Stephenson Road, on the Northacre Trading Estate in Westbury (the 'Application Site' or 'Site') see Figure NTS 1.1). This document summarises the findings of the Environmental Impact Assessment undertaken for the Northacre Facility in non-technical language.

1.1.2 As set out in detail within the Planning Statement, that also supports the application, the Northacre Facility already benefits from an existing, live (extant) planning permission, albeit for a different design solution to that for which permission is now being sought. This extant permission (reference: 18/09473/WCM), was granted by Wiltshire Council on 17th June 2019 and is hereafter referred to as the '2019 Permission'.

1.1.3 The Environmental Statement has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. The Environmental Impact Assessment also updated the environmental baseline to reflect contemporary conditions on and around the Application Site.

1.1.4 The Environmental Statement has been prepared as a complete standalone document for the amended Northacre Facility proposal, rather than an Addendum to the 2019 Environmental Statement. It assesses the likely significant effects of the Northacre Facility, as now proposed, on the environment during the construction and operation of the facility and compares the effects to those that would arise from the scheme approved under the 2019 Permission.

1.2 The Proposed Development

The Main Scheme Amendments

1.2.1 The Application Site and the overall disposition of the main building remain similar to that approved in 2019. A comparison between the Northacre Facility and the scheme approved under the 2019 Permission is set out Table 4.1. A series of drawings illustrating the amendments as overlays in plan and elevation view, are provided in NTS Figures 1.2a - e.

Summary of Table 4.1: comparison of Northacre Facility now Proposed and Scheme Approved under the 2019 Permission

Description of item / feature	Northacre Facility as now Proposed	Scheme approved under the 2019 Permission
Application Site area	2.88 hectares	2.74 hectares
Use	Residual waste treatment with energy recovery	Residual waste treatment with energy recovery
Technology	Single line, moving grate combustion	Gasification
Throughput capacity	Circa 243,000 tpa	Circa 160,000 tpa
Gross electricity generation	28.6 MW	25.5 MW
Primary Building Footprint	6,477 m^2	6,535 m^2
Maximum Building Height	40.0 m	36.8 m
Stack	Main stack 75 m high 2.55 m diameter Odour control stack 43 m high	Main stack 75 m high 4 m diameter Odour control stack 40 m high
Average daily HGV numbers servicing facility	78 movements	56 movements
Net Additional HGV numbers as a result of the development taking into account reduced movement to the Northacre RRC[1]	54 movements	42 movements
Employee numbers	40 permanent on-site jobs	40 permanent on-site jobs
Estimated capital cost	£200 million	£200 million

The Northacre Facility as Now Proposed

1.2.2 The Northacre Facility, as now proposed (also referred to as the 'Proposed Development', see Figure NTS 1.3), comprises a conventional, single line, moving grate combustion plant for the recovery of energy from residual waste. The residual waste would be non-hazardous waste primarily from commercial

[1] *Often referred to as the MBT Facility.*

and industrial sources and may include some municipal waste. Residual waste is the waste which remains after re-use and recycling / composting operations have taken place.

1.2.3 The Northacre Facility would generate 28.6 Megawatts. After subtracting the power used to run the facility itself, it would have the ability to export 25.6 Megawatts of electricity to the local electricity grid, which is enough to meet the annual needs of approximately 54,000 homes. The Northacre Facility would also be capable of exporting heat, in the form of steam or hot water, to local heat users. A significant proportion of the energy produced by the Proposed Development would be classed as renewable energy.

1.2.4 If the planning application is approved, the overall construction period would last approximately 36 months and the Proposed Development would be operational in 2025.

1.3 The Site and Its Context

1.3.1 The Application Site comprises circa 2.88 hectares (ha) of vacant land located on the Northacre Trading Estate and is between the Arla Foods Westbury Dairies to the north-west and the Northacre RRC to the south east. Stephenson Road is immediately north east of the site whilst there are fields to the south west. On the opposite side of Stephenson Road, are various other industrial/business units and uses and a sewage works, and a few remaining vacant plots awaiting new industrial / business uses.

1.3.2 The Site is broadly rectangular in shape, and slopes gently to the west. The overall development site varies in level from 62.85m AOD at the south-west corner; approximately 65.00m AOD at the south-east corner; 60.40m AOD along the northwest perimeter and 62.30m AOD at the entrance to the site. The Site lies within an established industrial area and is situated 600m south of the West Wiltshire Trading Estate.

1.3.3 The Site boundary is currently defined by galvanised steel palisade fencing and chain link fencing. The western boundary has a gappy and remnant hedgerow. Within the Site the land comprises a mosaic of rank grassland, tall herb/ruderal vegetation, scrub vegetation and open, hard-standing (including a car-park and

tarmac access road). Also, within the site there are five spoil mounds also supporting a mixture of rank grassland, tall herb/ruderal and scrub vegetation.

1.3.4 Stephenson Road runs along the north eastern boundary of the Site and provides access to surrounding industrial / commercial development. Stephenson Road also offers the principle point of access to the Site via an existing priority junction. Other development along or served off Stephenson Road include industrial and manufacturing units, Arla Dairies, a solvent recovery firm, Network Rail Recycling depot and the Northacre RRC. There is additional consent at the RRC site for a Waste Management building and expansion of the vehicle depot.

1.3.5 Immediately beyond the southern western boundary of the Site is farmland, but this also identified as part of the Northacre Trading Estate and a Principal Employment Area in the Wiltshire Core Strategy and as a location for Strategic Scale waste facilities in the adopted Wiltshire and Swindon Waste Site Allocations Local Plan.

1.3.6 The nearest residential properties to the east are Brookfield and Crosslands, which front Brook Lane approximately 60m from the Site. To the south west beyond open farmland, approximately 300m from the site, are two further residential properties, Brook Farm and Orchard House. There are a number of semi-detached houses on Storridge Road to the north-east.

1.3.7 The Site falls within Flood Zone 1 (the lowest category of flood risk), is not directly constrained by any statutory or non-statutory ecological designations, nor does it contain or form part of any designated heritage asset, such as a Scheduled Monument or a Listed Building. There are no public footpaths / rights of way within the Site.

2.0 ALTERNATIVES CONSIDERED

2.1.1 A number of alternative options were considered when developing the Northacre Facility, including alternative: technology solutions; direct combustion technologies; and design solutions.

2.2 Alternative Technology Solutions

2.2.1 Alternative technology options in relation to energy from waste recovery, include: advanced thermal treatment (i.e. pyrolysis and gasification); and direct combustion.

2.2.2 Based on technical and financial assessments a stand-alone direct waste combustion process with the ability to export electricity, heat or a combination of both was selected. This was on the basis that it represents a technology that is a credible and proven, capable of meeting environmental standards and financially and technically viable.

2.3 Alternative Direct Combustion Technologies

Direct waste combustion facilities can be delivered through a variety of sub-technologies. Moving grate is the leading technology in the UK and Europe for the combustion of municipal and other similar wastes and is used in 90% of UK and 98% of European incinerators. It is a proven and developed design, with a number of suppliers available. For these reasons moving grate technology was chosen. Maintaining the footprint of the development and the mass of the buildings within the parameters that were acceptable when the 2019 Permission was granted, led to the single line facility choice.

2.4 Alternative Design Solutions

2.4.1 Prior to selecting the current proposals, a range of design options were developed. This design evolution encompassed: overall facility layout; shape and form of the main building; maximising the most efficient use of land; and proximity of receptors and overall appearance of the facility in the Site's context.

3.0 SCHEME DESCRIPTION

3.1 Site Layout

3.1.1 The Northacre Facility would be based around a main building which would contain the following areas:

- Reception Hall;
- Bunker;
- Boiler Hall;
- Turbine Hall;
- Incinerator Bottom Ash (IBA) Storage; and
- Offices, Workshop, Stores and Staff Welfare Facilities.

3.1.2 A plan of the overall layout of the Northacre Facility is shown in Figure NTS 1.3, with a series of elevations are shown on Figures NTS 1.4a - d.

3.1.3 The Flue Gas Treatment (FGT) facility, which cleans up gases from the combustion process, would sit separate from the main building and adjacent to it would be the freestanding stack (chimney), which would be 75m high. The stack would be circa 2.55m in diameter.

3.1.4 The Air Cooled Condenser (ACC), which condenses steam back to water for re-use, would form a rectangular shaped structure situated to the north west of the main building. The structure is separate from the main building in order to allow sufficient air flow through the units.

3.1.5 The Northacre Facility would also include the following ancillary / infrastructure:

- Vehicle weighbridges and weighbridge Gatehouse;
- Transformer and Substation buildings
- A separate DNO substation;
- Odour Control Plant and Stack
- Fire water tank and associated pump house;
- Tanks / silos (containing fuel oil, ammonia hydroxide, FGT residues);
- Internal circulation roadways / ramps and manoeuvring areas;
- High level conveyor from the MBT building
- Employee and visitor parking / bicycle parking including EV charging;

- Fencing and gating;
- Service connections;
- Surface water drainage;
- Lighting and CCTV; and
- Areas of hard and soft landscaping.

Employment

3.1.6 During the construction of the Northacre Facility peak staff numbers would be approximately 450. During operations the facility would employ approximately 40 people, the majority of which would be skilled operative or technical engineers..

Access

3.1.7 Vehicular access to the Site (for both the construction and operational phases) would be provided via revisions to the existing access off Stephenson Road (as shown on Figure 4.6). It is proposed that all operational HGV traffic to / from the Northacre Facility would route via Stephenson Road, the Storridge Road roundabout, to Quartermaster Road, to Link Road, which connects to the B3097 Hawkeridge Road at a roundabout. The B3097 provides a connection to the A350.

Drainage

3.1.8 The Northacre Facility would give rise to surface water run-off from roads, vehicle parking areas, roofs of buildings and other hard standings. Most surface water would flow into the proposed surface water drainage system. However, some roof water would be diverted to a rainwater harvesting tank located within the main building. Surface water flows from areas susceptible to pollution e.g. roads and parking areas, would pass through petrol / oil interceptors prior to being discharged at an agreed rate into the appropriate sewers.

3.2 Proposed Site Operations

Operating Hours and Vehicle Numbers

3.2.1 The Northacre Facility would process residual waste and generate electricity and heat on a 24-hour basis. In line with 2019 Permission, waste and material deliveries would only take place between the hours of 07:00 and 22:00 weekdays and 07:00 to 17:00 on Saturdays.

3.2.2 The operation of the Northacre Facility would give rise to the following average daily HGV movements / numbers:

- **Input:** Residual Waste 61 HGV movements (30 in + 31[2] out)
  Consumables: 2 HGV movements (1 in + 1 out)
- **Output:** Ash / APCR Exports: 15 HGV movements (8 in + 7 out)
- **Total (Input + Output):** 78 HGV movements (39 in + 39 out)

3.2.1 However, the facility also receives Solid Recovered Fuel (SRF) and residual waste direct from the adjacent Northacre RRC via a conveyor which forms part of the application and by direct transfer in a vehicle. This removes the HGVs historically associated with managing these materials from the local highway network. These movements average 24 HGVs per day at the RRC.

3.2.2 Therefore, the net HGV as a result of the proposals is an average of 54 HGV movements per day. The current consent for the site proposed an average of 42 net HGV movements per day, so the proposal results in an average increase of 12 HGV movements across the 15 hour working day.

Energy Recovery Process

3.2.3 Figure NTS 1.5 illustrates the processes involved within the energy recovery process, these are then described in more detail below.

[2] Numbers rounded to avoid part HGVs

Waste Reception and Handling

3.2.4 Residual waste would be delivered to site primarily in bulk articulated HGVs, with some smaller refuse collection vehicles. These would enter the enclosed reception (tipping) hall, where they would tip into the bunker. The residual waste from the Northacre RRC operations (described as “heavies and fines”) will be transferred directly in suitable containers such as roll on offs (roro), on a purpose built access from the Northacre RRC. The SRF will be transferred from the MBT building in a purpose designed enclosed high level conveyor leading from the MBT directly to discharge in the bunker.

3.2.5 A crane grab would then mix and stack the residual waste / refused derived fuel into the feed chute of the furnace.

Combustion Process

3.2.6 The residual waste / refused derived fuel would be burned on a moving grate, which turns and mixes the residual waste to ensure full exposure to the combustion process.

Flue Gas Treatment and Stack

3.2.7 Gases generated during the combustion process would be cleaned in the flue gas treatment plant before being released into the atmosphere via the stack (chimney). The treatment plant works by using a number of filters and chemicals to remove pollutants from gases and ensures that the plant operates within the emission limits set out in the Environmental Permit issued by the Environment Agency that will be required prior to operations commencing. As a minimum, the Environmental Permit will meet the requirements of the Industrial Emissions Directive. Emissions from the stack would be monitored continuously and reported in accordance with the Environment Agency’s requirements.

By-Product Handling and Disposal

3.2.8 Two types of solid by-products would be produced from the operation, ash and Air Pollution Control Residues, each of which would have separate handling and disposal arrangements.

3.3 Energy Recovery

3.3.1 One of the major benefits of the Northacre Facility would be the ability to generate 25.6 Megawatts of electricity from burning the waste. This would be exported to the local electricity grid. This is sufficient to meet the entire annual domestic electricity needs of around 54,000 homes. The facility would also be capable of exporting heat, in the form of steam or hot water, to local heat users.

3.4 Construction

Timetable and Hours

3.4.1 The overall construction period is anticipated to take approximately 36 months, with operation starting in 2022.

3.4.2 Construction operations would occur between 07.00 to 19.00hrs weekdays and 08:00 to 14:00 Saturdays, with no construction work on Sundays or Bank Holidays. It is possible that some construction activities would be undertaken outside these hours e.g. delivery of abnormal loads, continuous concrete pours. During commissioning, works would be undertaken 24 hours a day, seven days a week.

Construction Environmental Management Plan

3.4.3 A Construction Environmental Management Plan would be developed to manage and report environmental effects of the Northacre Facility during construction. This would typically cover elements such as drainage, water quality and hydrology, dust, emissions and odours, health and safety / site management, waste and traffic management and contaminated materials.

3.5 Operational Environmental Management

3.5.1 An Environmental Management System would be in place during operation to manage and monitor rodents and pests, dust and odour, fire and litter. In addition, an Environmental Permit (issued and enforced by the Environment Agency) will also be required to operate the Northacre Facility.

4.0 SUMMARY OF EFFECTS

4.1 Introduction

4.1.1 The likely significant environmental effects of the Proposed Development are fully described within the Environmental Statement Main Report (Volume 1), with a brief summary of the overall findings detailed below in non-technical language.

4.2 Cumulative Impacts

4.2.1 Each of the technical assessments considered cumulative effects of the Northacre Facility along with other major schemes committed to planning in the area. All technical assessments found there to be no significant cumulative effects together with the Northacre Facility.

4.3 Landscape and Visual Effects

4.3.1 Chapter 5.0 of the ES, together with the supporting figures and appendices, sets out an assessment of the likely significant landscape and visual effects of the Proposed Development.

4.3.1 The Proposed Development would be located on a vacant plot of land at the edge of an extensive industrial area, to the north of Westbury. Agricultural land to the west of the Site is allocated for further industrial development in local planning policy documents. As such, the Proposed Development would be in keeping with existing and future industrial development in this part of Westbury. The Site already benefits from planning consent for a similar scale facility that was granted in 2019.

4.3.2 Construction activities would be temporary and localised and would take place in the context of existing activity on the wider industrial estates. The most prominent construction elements would be the cranes used to construct the taller parts of the Proposed Development. However, construction activity would be temporary and intermittent, having only a limited short term influence upon the character of the surrounding landscape and upon views, which would not be significant.

4.3.3 The landscape character to the immediate north, east and south of the Proposed Development is defined by existing industrial development. The more rural area to the west of the Site is defined by existing industrial development along its eastern boundary. The Proposed Development would be seen in this context as an intensification of existing industrial uses and this would not result in significant effects on the wider landscape character to the west of the Site.

4.3.4 From viewpoints immediately to the west of the Proposed Development there is potential for some localised significant visual effects. However, from most viewpoints within the wider landscape setting, visual effects would not be significant. This is due to the Proposed Development occupying a modest proportion of the overall views available and being seen in the context of other large scale industrial development and the wider developed area of Westbury. This is consistent with the findings of the LVIA for the 2019 Permission.

4.3.5 In comparison to the consented 2019 Permission the Proposed Development would be of a similar scale and form. The increase in maximum building height would barely be perceptible from most viewpoints due to the revised position of the boiler house and the reduced height/location of other elements. The most significant improvement associated with the Proposed Scheme would be the reduction in the diameter of the proposed stack from 4m to 2.55m. This reduces the prominence of the stack in a number of views and reduces the visual impact of the development compared to the previously consented scheme.

4.4 Ecological and Nature Conservation

4.4.1 There is no European or nationally designated nature conservation site located within 1km of the study area. The nearest European site is the Salisbury Plain Special Area of Conservation (SAC) and Special protection Area (SPA), which is located >3.5 km south east of the study area. The nearest nationally designated site is Westbury Iron Stone Site of Special Scientific Interest (SSSI), which is located >1 km south of the study area. Picket and Clanger Wood SSSI lies out of the 2 km screening boundary in terms of process emissions but was assessed.

4.4.2 The land within the study area comprises a mosaic of rank grassland, tall herb/ruderal vegetation, scrub vegetation and open, hard-standing (including a

car-park and tarmac access road). The habitats on-site are common/widespread and of no specific conservation concern (i.e. not rare, scarce or threatened). The habitats on-site are not a constraint for the proposed development.

4.4.3 In addition, the Phase 1 surveys did not find any suitable habitats or signs of protected species within the site. Badger setts had been previously identified on the boundaries. There is no evidence that badgers inhabit the interior of the development site. The site was visually inspected in September 2014, April 2018, November 2018, April 2019 and May 2020.

4.4.4 No significant effects are predicted on statutory or locally designated sites, including air quality impacts of emissions from the Northacre Facility, or effects of noise and human disturbance.

4.4.5 Mitigation measures embedded into the design of the facility would avoid other significant indirect effects occurring during construction and operation. Additional mitigation measures are proposed during the construction phase to protect foraging badgers and nesting birds.

4.4.6 Given the absence of any residual adverse impacts combined with the integration of a range of linked new semi-natural habitats that diversify habitat niches for a range of local wildlife, the residual ecological effect of the Proposed Development is concluded to be positive at the local scale, as the scheme contributes a net gain for local biodiversity.

4.5 Noise and Vibration

4.5.1 Noise and vibration levels have been considered and assessed for the construction and operational phases of the Proposed Development. Relevant and appropriate noise and vibration guidance and standards have been used to determine the impact.

4.5.2 In accordance with appropriate standards, best practical means would be employed to control noise generation during the construction period. Measures may include restrictions on construction working hours, sensible routing of equipment to site and careful choice of piling rigs to minimise noise. Such

measures would be defined within the Construction Environmental Management Plan.

4.5.3 In relation to the operational phase a number of measures to control noise are proposed to ensure noise levels are within the Local Authority standards. The measures would be based on the employment of Best Available Techniques to mitigate any potential peak noise sources.

4.5.4 The assessment shows that there would be no significant noise impacts during construction or operation of the Northacre Facility following the implementation of appropriate mitigation. The conclusions of this assessment for the Northacre Facility remain materially unchanged from those conclusions found in the Environmental Statement to support the 2019 Permission.

4.6 Air Quality and Human Health

4.6.1 The main air emissions associated with the construction and operation of the Northacre Facility would be dust and stack process emissions. Detailed modelling of emissions has been undertaken to assess potential impacts.

4.6.2 The assessment found that the effects of stack process emissions on human health and ecological receptors to be negligible. The Proposed Development is not predicted to give rise to significant environmental effects on air quality, human health and odour in the local area either during the construction or operational phases.

4.6.3 The Northacre Facility also has the potential to cause impacts associated with the release of dust during the construction phase. Mitigation has been proposed and it was concluded that these impacts would not be significant.

4.6.4 The increase in operational vehicles associated with the Northacre Facility is minimal, when compared to the scheme consented under the 2019 Permission, such that they are not expected to have a measurable impact on local air quality, and the effect is considered to be negligible.

4.6.5 The impact of process emissions is less than the previously consented scheme due to the reduction in the Emission Limit Values (ELVs) associated with the

implementation of the most recent Waste Incineration Best Available Techniques Reference documents or “BREF”. The Environmental Statement to support the 2019 Permission concluded that the impact of the Proposed Development would be not significant – i.e. the same as this assessment for the revised scheme.

4.7 Surface Waters and Flood Risk

4.7.1 The Site is in Flood Zone 1 which is the lowest flood risk designation in the UK. All forms of flood risk at the Site has been assessed and resulting risk considered to be low to very low.

4.7.2 The Proposed Development would increase the impermeable area of the Site resulting in an increase in surface water run-from the Site to the existing Wessex Water stormwater collector sewer in Stephenson Road. A comprehensive on-site stormwater attenuation system has been designed to accommodate manage flows off the Site.

4.7.3 Assuming good working practises are adopted throughout the construction phase, the predicted impact of the Northacre Facility in terms of flood risk, water quality, foul and surface water drainage and water supply are all considered to be negligible.

4.7.4 The potential impact on surface water and the risk of flooding of the Northacre Facility during operation would be negligible. This is the same effect as predicted for the scheme approved under the 2019 Permission.

4.8 Traffic and Transportation

4.8.1 Baseline traffic predictions have been established for the construction phase, peaking in 2023, and the operational phase, commencing in 2025, both including traffic from the facility permitted by the 2019 Permission. The transport effects are determined from changes in traffic from the levels accepted for the 2019 Permission.

4.8.2 Changes in operational traffic relative to the 2019 Permission are eleven HGV movements a day. Changes in the overall daily traffic during operation of the

Northacre Facility range from 0 to 0.2% across the highway network, below the accepted 30% threshold for material environmental change set out in Rule 1 of the Institute of Environmental Management and Assessment guidelines.

4.8.3 The cumulative effects of increased traffic from other planned major development locally have no material effect and the effects remain not significant across the highway network.

4.8.4 There are no residual transport effects anticipated to arise from this development relative to the 2019 Permission, and the mitigation measures agreed as suitable for that scheme remain entirely applicable and adequate for the Proposed Development.

4.9 Socio-Economics

4.9.1 During 2019, unemployment within the Study Area was lower than the figure for both the South West region and for Great Britain. Construction employment was similar to the regional average, but above the national average.

4.9.2 The experience of the Design Team on projects of a similar size and scale suggests that the Northacre Facility could create up to 450 direct construction jobs at any one time and would have a positive influence upon the continued viability of a range of contractor companies and their employees, as well as other businesses forming part of the supply chain in the Study Area. This would be of general benefit to the wider economy, in terms of retention and possible upgrading of skilled workers, and viability of construction sector businesses. Construction effects would be temporary, but construction activity (and the experience and skills gained / developed) has the potential to lead to further opportunities for both businesses and individual workers should further development in the area be progressed.

4.9.3 Once operational, the Northacre Facility would directly create approximately 40 jobs. A further 70 jobs are likely to be created or supported by indirect or induced expenditure (e.g. services bought-in to the Site, or spending outside the Site by employees). Once the effects of displacement and leakage are considered, it is estimated that within the Study Area approximately 86-87 jobs would be

supported directly or indirectly, which would add an estimated £2.7 million to the economy each year.

4.9.4 There would be a medium magnitude of change from the baseline for both employment and Gross Valued Added, i.e. contribution to the economy made by the business. This would result in a moderate beneficial effect to the economy of the Study Area, Effects are likely to be significant for some businesses that supply bought-in goods and services, and for individuals including those employed at the Proposed Development.

4.10 Cultural Heritage

4.10.1 Within the 2km radius study area from the Site designated and non-designated heritage assets were assessed, as well as selected assets to 5km.

4.10.2 No direct effects have been assessed to occur for potential archaeological remains. Only one indirect effect of “minor” significance is identified in relation to the Grade II Listed Brook Farmhouse from development within its setting cause a reduction in its heritage significance. This is not considered significant for purposes of the EIA regulations. This considered to constitute “less than substantial harm” and at the lowest end of the scale.

4.10.3 The conclusions of the assessment for the Northacre Facility remain materially unchanged from those conclusions found in the Environmental Statement to support the 2019 Permission.

4.11 Conclusion

4.11.1 The ES has assessed and evaluated all potential significant, direct, indirect, cumulative and in-combination environmental effects of the Northacre Facility. Where adverse effects have been identified, measures to prevent, reduce, and if appropriate offset these have been described.

4.11.2 The assessment has concluded that the Northacre Facility would not give rise to any significant adverse residual environmental effects, beyond some limited localised visual effects from immediately west of the Application Site. These conclusions mirror those for the scheme approved under the 2019 Permission.

Figures

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Your Ref: 20/06775/WCM
Our Ref CIRIS 54131

22nd September 2020

Dear Mr Tomsett,

Planning Application 20/06775/WCM

Amended energy from waste facility to that consented under Planning Permission 18/09473/WCM

Address: Northacre Renewable Energy Stephenson Road Northacre Industrial Estate Westbury Wiltshire BA13 4WD

Thank you for consulting Public Health England (PHE) on the above application.

We understand that the application proposes the following (extract from Environmental Statement Vol 1 – Main Report – Description & Construction Methods).

The Northacre Facility, … would be a conventional, single line, moving grate combustion plant for the recovery of energy capable of processing circa 243,000 tpa of non-hazardous residual waste.

The principal plant would be located within the main building that would contain the following elements:

- *Reception Hall;*
- *Bunker;*
- *Boiler Hall;*
- *Turbine Hall;*
- *Incinerator Bottom Ash (IBA) storage; and*
- *Offices, Workshop, Stores and Staff Welfare Facilities.*

The Flue Gas Treatment (FGT) facility would sit separate from the main building and adjacent to it would be the freestanding stack (chimney), which would be 75m high. The stack would be circa 2.55m in diameter.

The Air Cooled Condenser (ACC) would form a rectangular shaped structure situated to the north west of the main building. The structure is separate from the main building in order to allow sufficient air flow through the units.

The Northacre Facility would also include the following ancillary / infrastructure:

- *Vehicle weighbridges and weighbridge Gatehouse; • Transformer and Substation buildings*
- *A separate DNO substation;*
- *Odour Control Plant and Stack*
- *Fire water tank and associated pump house;*
- *Tanks / silos (containing fuel oil, ammonia hydroxide, FGT residues);*
- *Internal circulation roadways / ramps and manoeuvring areas;*
- *Employee and visitor parking / bicycle parking including EV charging;*
- *Fencing and gating;*
- *Service connections;*
- *Surface water drainage;*
- *Lighting and CCTV; and*
- *Areas of hard and soft landscaping.*

… the overall Northacre Facility scheme, as now proposed, would also encompass works already consented through three extant planning permissions (described within the planning history section subsequently), these being:

- *The creation of a landscaped bund on part of the land to the west of the Application Site, which would utilise excess soil and subsoil material from the construction phase;*
- *A grid connection from the Application Site to the Rodden Road sub-station in Frome, which is the subject of a pair of planning permissions by virtue of the connection route crossing Wiltshire's administrative boundary into Mendip District.*

We note that the Northacre Facility already benefits from an extant planning permission, albeit for a different design solution to that for which permission is now being sought. This extant permission (reference: 18/09473/WCM), was granted by Wiltshire Council on 17th June 2019. Given the existing permission for a similar facility our response has focussed on the public health significance of differences between the existing and amended proposals.

The Non-Technical Summary accompanying the application includes the following summary of the changes. Key points are included below.

The Northacre Facility, as now proposed comprises a conventional, single line, moving grate combustion plant for the recovery of energy from residual waste. The residual waste would be non-hazardous waste primarily from commercial and industrial sources and may include some municipal waste. Residual waste is the waste which remains after re-use and recycling / composting operations have taken place. The Northacre Facility would generate 28.6

Megawatts. After subtracting the power used to run the facility itself, it would have the ability to export 25.6 Megawatts of electricity to the local electricity grid, which is enough to meet the annual needs of approximately 54,000 homes. The Northacre Facility would also be capable of exporting heat, in the form of steam or hot water, to local heat users. A significant proportion of the energy produced by the Proposed Development would be classed as renewable energy.

If the planning application is approved, the overall construction period would last approximately 36 months and the Proposed Development would be operational in 2025.

Summary of Table 4.1: comparison of Northacre Facility now Proposed and Scheme Approved under the 2019 Permission

Description of item / feature	Northacre Facility as now Proposed	Scheme approved under the 2019 Permission
Application Site area	2.88 hectares	2.74 hectares
Use	Residual waste treatment with energy recovery	Residual waste treatment with energy recovery
Technology	Single line, moving grate combustion	Gasification
Throughput capacity	Circa 243,000 tpa	Circa 160,000 tpa
Gross electricity generation	28.6 MW	25.5 MW
Primary Building Footprint	6,477 m^2	6,535 m^2
Maximum Building Height	40.0 m	36.8 m
Stack	Main stack 75 m high 2.55 m diameter Odour control stack 43 m high	Main stack 75 m high 4 m diameter Odour control stack 40 m high
Average daily HGV numbers servicing facility	78 movements	56 movements
Net Additional HGV numbers as a result of the development taking into account reduced movement to the Northacre RRC[1]	54 movements	42 movements
Employee numbers	40 permanent on-site jobs	40 permanent on-site jobs
Estimated capital cost	£200 million	£200 million

PHE Comments

Should the development take place the operation will also be regulated under the provisions of a permit issued by the Environment Agency (Environmental Permitting Regulations 2016). The associated conditions will require the operator to use the best available technology to ensure that impacts from the combustion process and ancillary waste handling activities site are minimised and are compliant with UK and EU air quality and emissions standards. PHE considered these standards to be protective of public health.

PHE Position Statement (Modern Municipal Waste Incinerators)

PHE's risk assessment remains that modern, well run and regulated municipal waste incinerators are not a significant risk to public health. While it is not possible to rule out adverse health effects from these incinerators completely, any potential effect for people living close by is likely to be very small. This view is based on detailed assessments of the effects of air pollutants on health and on the fact that these incinerators make only a very small contribution to local concentrations of air pollutants.[1]

As Environmental Permitting is the primary regulatory mechanism for municipal waste incinerators, PHE will formally consider the public health implications of the proposed development as a consultee in the associated permitting process. For that reason we have limited our consideration at the planning stage to the principle of land use, a consideration of the Environmental Impact Assessment (EIA) approach adopted by the applicant and type and range of submitted assessments.

Changes from Previous Application

Structural

We note that there are some changes to the building design, layout and elevation height. The primary stack will now be of a reduced diameter and that the odour control stack will have increased in height by 3m (to 43m in total). We do not wish to comment on the visual amenity aspects of these changes and do not consider the amendments be significant to a public health risk assessment.

Throughput of Waste

There is an 83,000 tonnes per annum increase in the volume of imported waste. Whilst this is clearly relevant to the potential emissions from the process in terms of odour, flue gases etc. we note that these aspects would still be managed by the associated environmental permit and on that basis do not believe the increase in throughput poses a significant risk to public health.
Electricity Generation

We do not believe this is likely to have any significant impact on our public health risk assessment.

Vehicle Movements

[1] https://www.gov.uk/government/publications/municipal-waste-incinerators-emissions-impact-on-health/phe-statement-on-modern-municipal-waste-incinerators-mwi-study

The Net additional vehicle movements have increased for 56 to 78 (22 additional movements). Whilst this constitutes a 39% increase over the extant permission, we note the vehicular access routes also serve West Wiltshire Trading Estate. The area is home to a significant number of other large industrial / commercial operations including large warehousing and food manufacture operations. The primary vehicular access to the A350 in all cases is via the B3097. In this context we do not believe that the additional 22 daily movements are likely to be significant in public health terms.

Impacts during construction

As with any development there may be some localised short-term impacts during the construction phase of the project. We note however that such impacts can be adequately managed by normal control measures and the use of industry good practice. Should issues such as noise or dust impacts arise during construction the existing regulatory controls available to the local authority are considered adequate.

Air Quality

The applicant has modelled likely emissions from the site and considered the impact on local air quality. There are a number of sensitive receptors within 2km of the proposed plant including a powdered milk production facility, residential premises, commercial premises, recreation areas, schools and care homes. The submitted assessments have identified these receptors and assessed the impact of a range of emissions from the plant. No significant impacts have been identified in the documentation and PHE is satisfied that the applicant is utilising assessment criteria that are in line with UK guidance and good practice.

There is an Air Quality Management Area (AQMA) in Westbury, declared on the basis of nitrogen dioxide, but we note that the predominant source of NO_2 in that area is vehicular traffic. The submitted assessments indicate that the additional contribution from either traffic associated with the proposed development or from stack emissions is likely to be small and consequently is unlikely to have a significant impact on public health. We note that Wiltshire Council has the primary responsibility for managing the AQMA and would recommend that the planning authority consult internally with the appropriate team to confirm that they are happy with the proposals as submitted..

On the basis of the information submitted with the application PHE is satisfied that the development/process should be capable of operating within the requirements of current UK regulations, air quality standards and emissions standards. Detail of the regulatory control, emissions requirements and monitoring requirements will be considered in more detail as part of the environmental permitting process; however, on the basis of the information submitted to date PHE would be unable to sustain any objection to the development on the grounds of air quality.

Transport Impacts

PHE has only considered the impact of traffic on air quality and does not wish to comment on other matters such as noise although we note that as a result of the existing traffic burden the predicted increase in overall traffic levels as a result of both the construction and operational phases is predicted to be small. We are not able to assess the accuracy of the traffic predictions and should Wiltshire Highways department disagree with the applicants estimates we would be happy to reconsider this matter based on any new evidence.

Controlled Waters

The development/process is handling waste and consequently there is a potential for this to impact on the local environment and controlled waters. This matter is however better assessed by the Environment Agency and will be addressed by suitable permit conditions.

Noise

PHE does not provide comments on noise at the present time.

Conclusion

PHE is satisfied that the applicant has approached the environmental impact assessment in a manner consistent with the UK requirements. They have utilised a satisfactory approach and methodology to predict the likely emissions, distribution of a range of key pollutants and the impact on the local environment and receptors.

PHE will further consider the emissions and appropriate control measures when we are consulted as part of the Environmental Permitting process and will make additional comments at that time. We are however satisfied that the applicant has demonstrated that the proposed development can be carried out without any significant impact on health, subject to compliance with UK air quality and emission standards. For that reason, we do not wish to raise any objection to this planning application.

We note that there is local opposition to the application and recommend that you liaise closely with your council's public health and health and wellbeing teams. This will ensure that they are aware of the application and local concerns and assess the wider public health implications and impacts on the local community.

If you have any questions or require any clarification, please do not hesitate to contact us.

Yours sincerely

Environmental Public Health Scientist
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CHAPTER 8.0 AIR QUALITY, ODOUR AND HUMAN HEALTH

FIGURES (Volume 2 bound separately)

APPENDICES (Volume 3 bound separately)

8.0 AIR QUALITY, ODOUR AND HUMAN HEALTH

8.1 Introduction

8.1.1 This chapter considers the potential impacts of the Proposed Development on local air quality and odour. The main focus of the chapter is the emissions from the stack associated with the Proposed Development. However, impacts from fugitive emissions of dust during the construction phase, the emissions from traffic associated with the import and export of materials and potential fugitive emissions of dust and odour during operational phase have also been assessed.

8.1.2 This chapter is supported by the following technical appendices:

- Appendix 8-1 Baseline Analysis, which provides a detailed analysis of the existing air quality in the area;
- Appendix 8-2 Construction Dust Assessment Methodology, which provides all the technical details of the assessment methodology for construction phase dust impacts;
- Appendix 8-3 Emissions Modelling, which provides all the technical details of the dispersion modelling of process emissions undertaken;
- Appendix 8-4 Human Health Risk Assessment;
- Appendix 8-5 Ecological Interpretation of Air Quality Assessment; and
- Appendix 8-6 Information to Inform a Habitats Regulations Assessment

Competence

8.1.3 This EIA and supporting technical appendices have been prepared by Hannah Lederer and reviewed by Rosalind Flavell at Fichtner Consulting Engineers. Hannah is a recent geography (BSc Hons) graduate from Durham University. Rosalind (CEnv CSci MIAQM MIEnvSc PIEMA) is a chartered member of the IAQM and IES and a practitioner member of the IEMA. Rosalind has over ten years of experience undertaking air quality assessments for planning and permitting purposes for a wide range of developments including Energy from Waste facilities across the UK.

8.2 Methodology

Legislation and Guidance

8.2.1 European air quality legislation is consolidated under the Ambient Air Quality Directive (Directive 2008/50/EC), which came into force on 11 June 2008. This Directive consolidates previous legislation which was designed to deal with specific pollutants in a consistent manner and provides Ambient Air Directive (AAD) Limit Values for sulphur dioxide, nitrogen dioxide, benzene, carbon monoxide, lead and particulate matter with a diameter of less than 10µm (PM_{10}) and a new AAD Target Value and Limit Value for fine particulates (those with a diameter of less than 2.5µm ($PM_{2.5}$). The fourth daughter Directive - 2004/107/EC - was not included within the consolidation. It sets health-based Target Values for polycyclic aromatic hydrocarbons (PAHs), cadmium, arsenic, nickel and mercury, for which there is a requirement to reduce exposure to as low as reasonably achievable. Directives 2008/50/EC and 2004/107/EC are transposed into UK Law into the Air Quality Standards Regulations (2010) and subsequent amendments.

8.2.2 The UK Government and the devolved administrations are required under the Environment Act (1995) to produce a national air quality strategy. This was last reviewed and published in 2007. The Air Quality Strategy (AQS) sets out the UK's air quality objectives and recognises that action at national, regional and local level may be needed, depending on the scale and nature of the air quality problem. This includes additional targets and limits for 15-minute sulphur dioxide and 1,3-butadiene and more stringent requirements for benzene and PAHs, known as AQS Objectives. Environmental Assessment Levels (EALs) for other pollutants are presented on the gov.uk website as part of the Environment Agency's (EA) Environmental Management Guidance (Air emissions risk assessment for your environmental permit), which was last updated on 1 March 2016 and is referred to here as the Air Emissions Guidance. AAD Target and Limit Values, AQS Objectives, and EALs are set at levels well below those at which significant adverse health effects have been observed in the general population and in particularly sensitive groups. For the remainder of this chapter these are collectively referred to as AQALs.

8.2.3 The UK Government published the Clean Air Strategy (CAS) in January 2019. This sets out the methods by which air pollution from all sectors will be reduced. The CAS has not introduced any new air quality limits.

8.2.4 Local Air Quality Management Technical Guidance (2016) referred to as LAQM.TG(16), outlines that the AQALs apply in the following locations:

- Annual mean - all locations where members of the public might be regularly exposed - i.e. building facades of residential properties, schools, hospitals, care homes etc.
- 24-hour mean and 8-hour mean - all locations where the annual mean objective would apply together with hotels and gardens of residential properties.
- 1-hour mean - all locations where the annual mean, 24-hour and 8-hour mean apply together with kerbside sites and any areas where members of the public might be reasonably expected to spend one hour or more.
- 15-minute mean - all locations where members of the public might reasonably be exposed for a period of 15 minutes or more.

8.2.5 The AQALs relevant to this project are summarised in Appendix 8-3 and summarised in the following tables.

Table 8.1: Air Quality Assessment Levels

Pollutant	AQAL (µg/m^3)	Averaging Period	Frequency of Exceedance	Source
Nitrogen dioxide	200	1 hour	18 times per year (99.79th percentile)	AAD Limit Value
	40	Annual	-	AAD Limit Value
Sulphur dioxide	266	15 minutes	35 times per year (99.9th percentile)	AQS Objective
	350	1 hour	24 times per year (99.73rd percentile)	AAD Limit Value
	125	24 hours	3 times per year (99.18th percentile)	AAD Limit Value
Particulate matter (PM_{10})	50	24 hours	35 times per year (90.41st percentile)	AAD Limit Value
	40	Annual	-	AAD Limit Value
Particulate matter ($PM_{2.5}$)	25	Annual	-	AAD Limit Value
Carbon monoxide	10,000	8 hours, running	-	AAD Limit Value

Pollutant	AQAL (µg/m^3)	Averaging Period	Frequency of Exceedance	Source
	30,000	1 hour		Air Emissions Guidance
Hydrogen chloride	750	1 hour	-	Air Emissions Guidance
Hydrogen fluoride	160	1 hour	-	Air Emissions Guidance
	16	Annual	-	Air Emissions Guidance
Ammonia	2,500	1 hour	-	Air Emissions Guidance
	180	Annual	-	Air Emissions Guidance
Benzene	195	1-hour	-	Air Emissions Guidance
	5	Annual	-	AQS Objective
1,3-butadiene	2.25	Annual, running	-	AQS Objective
PCBs	6	1-hour	-	Air Emissions Guidance
	0.2	Annual	-	Air Emissions Guidance
PAHs – benzo(a)pyrene	0.00025	Annual	-	AQS Objective

Table 8.2: Air Quality Assessment Levels for Metals

Pollutant	AAD Target – Long Term (µg/m^3)	Long Term Air Emissions Guidance (µg/m^3)	Short Term Air Emissions Guidance (µg/m^3)
Cadmium	0.005	0.005	-
Thallium	-	-	-
Mercury	-	0.25	7.5
Antimony	-	5	150
Arsenic	0.006	0.003	-
Cadmium	0.005	0.005	-
Chromium (II & III)	-	5	150
Chromium (VI)	-	0.0002	-
Cobalt	-	-	-
Copper	-	10	200
Lead	-	0.25	-
Manganese	-	0.15	1500
Nickel	0.020	0.020	-
Vanadium	-	5	1

8.2.6 Critical Levels for the protection of sensitive ecosystems and habitats are also outlined within the Air Quality Standards Regulations for oxides of nitrogen and sulphur dioxide. Limits for ammonia and hydrogen fluoride are contained in the Air Emissions Guidance. The Critical Levels relevant to this project are presented in the following table.

Table 8.3: Critical Levels for the Protection of Ecosystems

Pollutant	Critical Level ($\mu g/m^3$)	Averaging period	Source
Nitrogen oxides (as nitrogen dioxide)	75	Daily mean	Air Emissions Guidance
	30	Annual mean	AAD
Sulphur dioxide	10	Annual mean for sensitive lichen communities and bryophytes and ecosystems where lichens and bryophytes are an important part of the ecosystems integrity	Air Emissions Guidance
	20	Annual mean for all higher plants	AAD
Hydrogen fluoride	<5	Daily mean	Air Emissions Guidance
	<0.5	Weekly mean	Air Emissions Guidance
Ammonia	1	Annual mean for sensitive lichen communities and bryophytes and ecosystems where lichens and bryophytes are an important part of the ecosystems integrity	Air Emissions Guidance
	3	Annual mean for all higher plants	Air Emissions Guidance

8.2.7 In addition to the Critical Levels, the Air Pollution Information System (APIS) provides habitat specific Critical Loads for nitrogen and acid deposition. Full details of the habitat specific Critical Loads can be found in Appendix 8-3.

Industrial Pollution Regulation

8.2.8 Atmospheric emissions from industrial processes are controlled in the UK through the Environmental Permitting (England and Wales) Regulations (2010), and subsequent amendments. The Proposed Development will be regulated by the Environment Agency and so will need an Environmental Permit to operate. The Environmental

Permit will include conditions to prevent fugitive emissions of dust and odour beyond the boundary of the installation. The Environmental Permit will also include limits on emissions to air.

8.2.9 The Industrial Emissions Directive (IED) (Directive 2010/75/EU), was adopted on 07 January 2013, and is the key European Directive which covers almost all regulation of industrial processes in the European Union (EU). Within the IED, the requirements of the relevant sector BREF (Best Available Techniques Reference documents) become binding as BAT (Best Available Techniques) guidance. The Waste Incineration BREF was published by the European Integrated Pollution Prevention and Control (IPPC) Bureau in December 2019. The BREF has introduced BAT-AELs (BAT Associated Emission Levels) which are more stringent than those currently set out in the IED for some pollutants. The Proposed Development would be designed to meet the requirements of the BREF for a new plant. Therefore, it has been assumed that the emissions from the Proposed Development would comply with the BAT-AELs set out in the BREF for new plants, or the emission limits in Annex VI Part 3 of the IED for waste incineration plants where BAT-AELs are not applicable.

Local Air Quality Management

8.2.10 Under Section 82 of the Environment Act (1995) (Part IV), local authorities are required to periodically review and assess air quality within their area of jurisdiction, under the system of Local Air Quality Management (LAQM). This review and assessment of air quality involves assessing present and likely future ambient pollutant concentrations against AQALs. If it is predicted that levels at the façade of buildings where members of the public are regularly present (normally residential properties) are likely to be exceeded, then the local authority is required to declare an Air Quality Management Area (AQMA). For each AQMA, the local authority is required to produce an Air Quality Action Plan (AQAP), the objective of which is to reduce pollutant levels in pursuit of the relevant AQALs. A review of the local area shows that the closest AQMA is the Westbury AQMA which at its closest point is located approximately 1.7 m from the Site. This assessment fully quantifies the impact on the local AQMAs. Appendix 8-1 includes a detailed overview of the local AQMA and the AQAP.

Control of Dust and Emissions during Construction and Demolition

8.2.11 The main requirements with respect to dust control from industrial or trade premises such as the Proposed Development construction site, are those provided in Section 80 of Part III of the Environmental Protection Act (1990). The Act defines nuisance as: *"any dust, steam, smell or other effluvia arising on industrial trade or business premises and being prejudicial to health or a nuisance."*

8.2.12 Enforcement of the Act, in regard to nuisance, is currently under the jurisdiction of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the local authority is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Act requiring abatement and any necessary works to achieve it.

Assessment Methodology

Dust from Construction Activities

8.2.13 There is the potential for dust to be released into the atmosphere as a result of construction activities. These fugitive dust emissions have been assessed on a qualitative basis in accordance with the methodology outlined within the 2014 IAQM guidance document - 'Guidance on the assessment of dust from demolition and construction'. A detailed description of the methodology for the assessment of construction phase dust impacts is presented in Appendix 8-2.

Vehicle Emissions

8.2.14 The IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality' (2017) states that an air quality assessment is required where a development would cause a "*significant change*" in light duty vehicles (LDVs) or heavy goods vehicles (HGV). The indicative criteria to process to an assessment are:

- A change in LDV flows of:
    - more than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA; or
    - more than 500 AADT elsewhere.
- A change in HGV flows of:
    - more than 25 AADT within or adjacent to an AQMA; or
    - more than 100 AADT elsewhere.

8.2.15 The IAQM guidance does not clearly state the level of assessment which is required. However, if the change in LDV and HGV flows does not exceed the above criteria, the Proposed Development is not expected to cause a significant change and the significance of effect is deemed to be negligible and further detailed analysis of the impact is not needed.

Operational Phase Process Emissions

8.2.16 This assessment has been undertaken using the Advanced Dispersion Modelling System (ADMS) 5.2 dispersion model, and the five most recent years for which weather data is available. Full details of the dispersion modelling methodology and inputs can be found in Appendix 8-3. The model has been used to predict the ground level concentration of pollutants on a long and short-term basis across a grid of points. It has also been used to predict the concentration at nominated points to represent sensitive receptors.

8.2.17 For some pollutants which accumulate in the environment such as dioxins and dioxin-like PCBs, inhalation is only one of the potential exposure routes and the assessment levels is expressed as a sum of the exposure from inhalation and ingestion. Therefore, other exposure routes have been considered. A detailed Human Health Risk Assessment has been carried out using the Industrial Risk Assessment Program - Human Health (IRAP-h View - Version 5.0). The programme, created by Lakes Environmental, is based on the United States Environment Protection Agency (USEPA) Human Health Risk Assessment Protocol. This Protocol is a development of the approach defined by Her Majesty's Inspectorate for Pollution (HMIP) in 1996, taking account of further research since that date. Full details of the modelling methodology and inputs can be found in Appendix 8-4.

Plume Visibility

8.2.18 There is the potential for the plume to be visible under certain circumstances. ADMS 5.2 includes a plume visibility module, which models the dispersion and cooling of water vapour and predicts whether the plume will be visible, based on the liquid water content of the plume. This module has been used to quantify the number of visible plumes likely to occur during the operation of the Proposed Development. These results have been drawn upon in the ES Chapter 5 (Landscape and Visual).

Fugitive Dust and Odour

8.2.19 There is the potential for fugitive emissions of dust and odour to be released from the Proposed Development during the operational phase, especially during the delivery, unloading and storing of materials. The impact of fugitive odour emissions has been assessed on a qualitative basis in accordance with the methodology outlined within the IAQM guidance document 'Guidance on the Assessment of Odour for Planning' (the IAQM (2018) guidance). This guidance sets out a methodology for assessing the effects of odour on amenity.

8.2.20 There is no specific guidance for assessing the impact of dust from operational sites. Therefore, we have applied the principals of the construction phase dust assessment methodology to determine the impact of fugitive dust emissions which could arise during operation of the Proposed Development.

Assessment of Significance / Assessment Criteria

Dust from Construction Activities

8.2.21 The effect of construction phase activities has been assessed in accordance with IAQM guidance. The guidance is structured to determine the risk of dust effects arising from four types of construction phase activities. These are:

- Demolition;
- Earthworks;
- Construction; and
- Trackout (defined as the transport of dust and dirt from the construction / demolition site onto the public road network).

8.2.22 A site is allocated to a risk category for dust emissions for each of the activities above based on two factors; dust emission magnitude, and the sensitivity of the area. These factors are combined to give the risk of dust impacts.

8.2.23 The highest risk category identified is used to define appropriate, site-specific, mitigation measures. The final stage is to determine whether significant effects are likely. For almost all construction phase activities, the aim should be to prevent

significant effects on receptors through the use of effective mitigation. Experience has shown that this is normally possible.

8.2.24 A detailed description of the assessment criteria for the assessment of construction phase dust impacts is presented in Appendix 8-2.

Process Emissions

8.2.25 For the Proposed Development to operate it will need to satisfy industrial permitting requirements set out and monitored by the Environment Agency. However, Environment Agency guidance has not been developed for conducting an assessment to accompany a planning application. Consequently, the IAQM guidance document “Land-Use Planning & Development Control: Planning for Air Quality” (2017) has been developed for professionals operating within the planning system. It provides planning officers and developers with a means of reaching sound decisions, having regard to the air quality implications of development proposals. The IAQM (2017) guidance states that it may be adapted using professional judgement. Therefore, where appropriate, Environment Agency guidance has been incorporated which is considered appropriate given that the Proposed Development will need to satisfy the industrial permitting requirements set out by the Environment Agency.

8.2.26 The IAQM (2017) guidance includes the following matrix which should be used to describe the impact based on the change in concentration relative to the AQAL and the overall predicted concentration from the scheme - i.e. the future baseline plus the process contribution.

Table 8.4: Magnitude of Change Descriptors

Long term average concentration at receptor in assessment year	% change in concentration relative to the Air Quality Assessment Level (AQAL)			
	1	2-5	6-10	>10
75% or less of AQAL	Negligible	Negligible	Slight	Moderate
76-94% of AQAL	Negligible	Slight	Moderate	Moderate
95-102% of AQAL	Slight	Moderate	Moderate	Substantial
103-109% of AQAL	Moderate	Moderate	Substantial	Substantial
110% or more of AQAL	Moderate	Substantial	Substantial	Substantial

8.2.27 It is intended that the change in concentration relative to the AQAL (the process contribution) is rounded to the nearest whole number. Therefore, any impact which is between 0.5% and 1.5% would be classified as a 1% change in concentration. An impact of less than 0.5% is described as negligible, irrespective of the total concentration.

8.2.28 The above matrix is only designed to be used with annual mean concentrations. The approach for assessing the impact of short-term emissions has been carried out in line with the IAQM (2017) guidance. This does not take into account the background concentrations as it is noted that background concentrations are less important in determining the severity of impact for short term concentrations.

8.2.29 Consequently, for short term concentrations (i.e. those averaged over a period of an hour or less), the following descriptors of change are used to describe the impact:

- < 10% - negligible;
- 10 - 20% - slight;
- 20 - 50% - moderate; and
- > 50% - substantial.

8.2.30 Following quantification of the magnitude of change the assessor should determine the significance of effect using professional judgement and should take into account such factors as:

- The existing and future air quality in the absence of the development;
- The extent of current and future population exposure to the impacts; and
- The influence and validity of any assumptions adopted when undertaking the prediction of impacts.

8.2.31 The IAQM (2017) states that, in relation to the significance of short-term impacts, *"In most cases, the assessment of impact severity for a proposed development will be governed by the long-term exposure experienced by receptors and it will not be a necessity to define the significance of effects by reference to short-term impacts. The severity of the impact will be substantial when there is a risk that the relevant AQAL for short-term concentrations is approached through the presence of the new source, taking into account the contribution of other prominent local sources."*

8.2.32 Therefore, if a short-term impact cannot be screened out as negligible or insignificant, consideration will be given to the risk of exceeding the short-term AQAL when determining the significance of effect.

8.2.33 The IAQM (2017) guidance does not provide any descriptors for averaging periods of between 1 hour and a year. Therefore, for these periods the Air Emissions Guidance criteria have been used, which state that:
"process contributions can be considered insignificant if:

- *the long term process contribution is <1% of the long term environmental standard; and*
- *the short term process contribution is <10% of the short term environmental standard."*

8.2.34 Where an impact cannot be screened out as "insignificant" based on the outputs of the initial screening and modelling, the significance of the effect has been determined based on professional scientific judgement of the likelihood of emissions causing an exceedance of an AQAL. This is a standard approach which allows the risk and likelihood of exceedance to be investigated and assessed in detail, following the first stage assessment.

8.2.35 In addition, the Environment Agency guidance document 'Guidance on assessing group 3 metals stack emissions from incinerators - V.4 June 2016' for assessing the impact of emissions of metals relative to their respective AQALs, states that where the process contribution (PC) for any metal exceeds 1% of the long term or 10% of the short term environmental standard (in this case the AQAL), this is considered to have potential for significant pollution. Where the PC exceeds these criteria, the Predicted Environmental Contribution (PEC) should be compared to the environmental standard. The PEC can be screened out where the PEC is less than the environmental standard. Where the impact is within these parameters, it can be

concluded that there is no risk of exceeding the AQAL and, as such, the magnitude of change and significance of effect is considered negligible.

8.2.36 For those substances which have the potential to accumulate in the environment, Tolerable Daily Intakes (TDI) (the amount of contaminant which can be ingested daily over a lifetime without appreciable health risk) and Index Doses (ID) (a level of exposure which is associated with a negligible risk to human health), are defined. Where the impact of process emissions is within these levels, emissions are expected to make a negligible impact on human health.

8.2.37 In June 2019 the IAQM released the guidance document 'A guide to the assessment of air quality impacts on designated nature conservation sites' (the IAQM (2019) guidance). This guidance draws on the Environment Agency's Air Emissions Guidance, which states that to screen out impacts as 'insignificant' at European and UK statutory designated sites:

- the long-term process contribution must be less than 1% of the long-term environmental standard (i.e. the Critical Level or Load); and
- the short-term process contribution must be less than 10% of the short-term environmental standard.

8.2.38 If the above criteria are met, no further assessment is required. If the long-term process contribution exceeds 1% of the long-term environmental standard, the PEC must be calculated and compared to the standard. If the resulting PEC is less than 70% of the long-term environmental standard, the Air Emissions Guidance states that the emissions are 'insignificant' and further assessment is not required. In accordance with the guidance, calculation of the PEC for short-term standards is not required.

8.2.39 The Air Emissions Guidance states further that to screen out impacts as 'insignificant' at local nature sites:

- the long-term process contribution must be less than 100% of the long-term environmental standard; and
- the short-term process contribution must be less than 100% of the short-term environmental standard.

8.2.40 In accordance with the Air Emissions Guidance, calculation of the PEC for local nature sites is not required. However, with regard to locally designated sites, the

IAQM (2019) guidance states: *"For local wildlife sites and ancient woodlands, the Environment Agency uses less stringent criteria in its permitting decisions. Environment Agency policy for its permitting process is that if either the short-term or long-term PC is less than 100% of the critical level or load, they do not require further assessment to support a permit application. In ecological impact assessments of projects and plans, it is, however, normal practice to treat such sites in the same manner as SSSIs and European Sites, although the determination of the significance of an effect may be different. It is difficult to understand how the Environment Agency's approach can provide adequate protection."*

8.2.41 As such, it is considered appropriate to apply the screening criteria for SSSIs and European Sites to locally designated sites to screen out the requirement for further consideration of the significance of effect for planning. Where an impact cannot be screened out as 'insignificant' further analysis has been undertaken by the project ecologist and this analysis is provided in Appendix 8-5.

Operational Phase - Fugitive Dust and Odour

8.2.42 The IAQM (2018) guidance has been developed to assist in the assessment of the effects of odour on amenity. The IAQM note that before an adverse effect can occur there must be odour exposure. For odour exposure to occur all three links in the source-pathway-receptor chain must be present. The magnitude of effect experienced is determined by the scale of the exposure (considering the Frequency, Intensity, Duration and Odour unpleasantness, FIDO) and the sensitivity of the receptor (L, denoting the location), which is often taken to be a surrogate for the sensitivity and incorporates the social and physical factors that can be expected for a given community.

8.2.43 As with the dust assessment the likely magnitude of effect is a combination of the risk of exposure and the sensitivity of the receptors. The risk of exposure is determined based on the source odour potential and the pathway effectiveness.

8.2.44 When determining the risk of exposure, the first stage is to categorise the source odour potential using the following risk ranking:

Table 8.5: Source Odour Potential Criteria

Source Potential	Description
Large	• Larger Permitted processes of odorous nature or large Sewage Treatment Works (STWs). • Highly odorous compounds with very low detection thresholds with unpleasant to very unpleasant odours. • Open air operation with no containment.
Medium	• Smaller Permitted processes or small STWs. • Moderately odorous compounds with neutral to unpleasant odours. • Some mitigation measures in place, but significant residual odour remains.
Small	• Smaller Permitted processes or small STWs. • Processes classed as "Less offensive. • Effective, tangible mitigation measures in place (e.g. Best Available Techniques (BAT), Best Practicable Means (BPM) leading to little or no residual odour.

8.2.45 The next stage is to determine the pathway effectiveness as a transport mechanism for odour. This includes consideration of the distance, whether the receptors are down wind of the odour source, the effectiveness of the release, the topography and terrain between the source and receptor. Using the following risk ranking the pathway effectiveness can be categorised as ineffective, moderately effective or highly effective.

Table 8.6: Pathway Effectiveness Criteria

Pathway Effectiveness	Description
Highly effective	• Receptor is adjacent to the source/site. • Direction – high frequency (%) of winds from source to receptor (or, qualitatively, receptors downwind of source with respect to prevailing wind).
Moderately effective	• Receptor is local to the source.
Ineffective	• Receptor is remote from the source. • Direction – low frequency (%) of winds from source to receptor (or, qualitatively, receptors upwind of source with respect to prevailing wind).

8.2.46 The risk of odour at receptor locations is then determined using the following matrix considering the pathway effectiveness and source odour potential.

Table 8.7: Risk of Odour Exposure Criteria

Pathway Effectiveness	Source Odour Potential		
	Small	**Medium**	**Large**
Highly effective	Low Risk	Medium Risk	High Risk
Moderately effective	Negligible Risk	Low Risk	Medium Risk
Ineffective	Negligible Risk	Negligible Risk	Negligible Risk

8.2.47 The sensitivity of receptors to odours is determined using the following principles.

Table 8.8: Sensitivity of Receptor

Sensitivity of receptor	Description
High	Surrounding land where: • users can reasonably expect enjoyment of a high level amenity; and • people would reasonably be expected to be present here continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. Examples may include residential dwellings, hospitals, schools/education and tourist/cultural.
Medium	Surrounding land where: • users would expect to enjoy a reasonable level of amenity, but wouldn't reasonably expect to enjoy the same level as amenity as in their home; or • people wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. Examples may include places of work, commercial/retail premises and playing/recreation fields.
Low	Surrounding land where: • the enjoyment of amenity would not reasonably be expected; or • there is transient exposure, where the people would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. Examples may include industrial use, farms, footpaths and roads.

8.2.48 The next step is to estimate the effect of that odour impact on the exposed receptor, taking into account its sensitivity, as shown by the following matrix.

Table 8.9: Odour Impact Criteria

Risk of Odour Exposure	Receptor Sensitivity		
	Low	Medium	High
High risk	Slight Adverse	Moderate Adverse	Substantial Adverse
Medium risk	Negligible	Slight Adverse	Moderate Adverse
Low risk	Negligible	Negligible	Slight Adverse
Negligible	Negligible	Negligible	Negligible

8.2.49 Where the overall effect is greater than "slight adverse" the effect is likely to be considered significant.

8.2.50 Although not specifically developed for assessing fugitive dust from operational sites the approach for construction dust has been applied when determining the impact of fugitive dust release from the Site in lieu of any other specific guidance.

Limitations

8.2.51 Limitations of the assessment have been taken into account wherever possible. For instance:

- The assessment has been undertaken using standard methods outlined in guidance produced by the Environment Agency and the IAQM. Standard assessment criteria, developed by nationally recognised institutions, minimise any uncertainty on the applicability of the approach used.
- Baseline data has been collected from local and national monitoring networks. Where site specific monitoring is not available, worst-case assumptions have been made and if impacts cannot be screened out as negligible irrespective of the baseline concentration, then the choice of baseline concentrations has been considered in greater detail.
- The impact of process emissions from the Proposed Development has been determined, based on operation at the ELVs. In practice the Proposed Development will operate below the ELVs and will be offline for periods of maintenance. Therefore, impacts would be even lower.
- The assessment has used five years of meteorological data to ensure inter-annual variability is taken into account and considered the predicted concentrations at the point of maximum impact and receptor locations.

- A range of sensitivities of model inputs have been analysed in line with best practice. Where assumptions have been made, these are conservative yet realistic.

8.3 Baseline

Dust and Odour

8.3.1 The Site is within a trading estate. Adjacent to the Site is the existing mechanical and biological treatment (MBT) Facility. There is also a hazardous waste management site approximately 350 m to the south. The baseline odour in the local area is potentially impacted by these facilities. However, each facility is required to control odour beyond its installation boundary as a requirement of their respective Environmental Permits. Therefore, these should not be a source of considerable odour in the area. No other potentially significant sources of odour, such as wastewater treatment plants or other waste sites, have been identified in the local area. The closest wastewater treatment works is 1.2 km from the Site. Therefore, the baseline odour levels are not expected to be significant.

Atmospheric Pollution

8.3.2 A detailed review of baseline atmospheric pollution levels has been undertaken as provided in Appendix 8-1. This has included a review of local and national monitoring networks, and nationally modelling background data.

8.3.3 This analysis has shown that the monitoring of pollutants is limited. In lieu of any local monitoring of other pollutants reference has been made to the DEFRA mapped background dataset and national monitoring networks. This has shown that background concentrations (away from the local road network) are below the AQAL. For other pollutants, not included in the DEFRA mapped background dataset, to determine the baseline concentrations for this assessment reference has been made to national monitoring data and estimates of the local conditions made based on the maximum monitored concentrations for sites in a similar setting to the application Site.

Sensitive Receptors

Dust Sensitive Receptors

8.3.4 As a worst-case assumption, it has been assumed that dust generating activities will occur at the boundary of the Site. Figure 8.1 illustrates the screening distances for dust sensitive receptors from the boundary of the Site.

8.3.5 The IAQM methodology is based on:

- The dust emission magnitude for each activity undertaken at the site - which is based on the scale of each activity; and
- The sensitivity of the area - which is based on the number of properties within certain distances of the boundary of the works.

8.3.6 The following table outlines how many sensitive human receptor locations have been identified in the relevant distance bands from the Site. For clarity, the IAQM methodology states that one residential unit is one high sensitivity receptor.

Table 8.10: Dust Sensitive Receptors

Distance (m)	Estimated number of residential units			
	From Site Boundary		From Site Access Routes	
	High Risk	Medium Risk	High Risk	Medium Risk
< 20	0	0	13	8
< 50	0	2	25	12
< 100	2	~10	-	-
< 200	3	~30	-	-
< 350	~40	~55	-	-

8.3.7 There are a number of both high and medium risk receptors within the human receptor screening distances (i.e. within 350 m of the site boundary, or 50 m by any route used by construction vehicles on the public highway, up to 500 m from the site entrance) indicating the need for further assessment for human receptors.

8.3.8 No hospitals, schools, or hotels have been identified within the relevant screening distances. However, Westbury Lodge care home is located within 350 m of the Site, and is considered within the High Risk human receptors count in Table 8.10. There

are also a number of commercial and industrial premises surrounding the Site within 350 m, including the adjacent dairy. These have been considered in the medium risk human receptors count as shown in Table 8.10.

8.3.9 No designated ecological receptors have been identified within 50 m of the Site boundary or the route used by construction vehicles on the public highway, up to 500 m from the Site entrance. Therefore, there are no ecological receptors which require consideration in this assessment.

Odour Sensitive Receptors

8.3.10 The following table outlines the odour sensitive receptors identified for the purpose of this assessment, including their relative sensitivities to odour effects. These are displayed on Figure 8.2.

Table 8.11: Odour Sensitive Receptors

ID	Receptor Name	Sensitivity	Location		Distance from Site boundary (m)	Distance from Tipping Hall (m)
			X (m)	Y (m)		
OR1	Oakfield Business Centre	Medium	385676	152219	94	186
OR2	23 Storridge Road	High	385917	152362	286	410
OR3	Savencia Fromage & Dairy UK	Low	385858	152173	101	231
OR4	Brook Lane 1 (Residential)	High	385900	152063	61	209
OR5	Brook Lane 2 (Trading)	Medium	385926	152006	85	218
OR6	Brook Lane 3 (Trading)	Medium	385880	151936	101	174
OR7	Brook Lane 4(Trading)	Medium	385868	151825	190	218
OR8	Brook Lane 5 (Residential)	High	385561	151568	368	411
OR9	Brook Drove 1 (Farm)	Low	385551	151768	190	234
OR10	Brook Drove 2 (Residential)	High	385496	151812	199	240
OR11	Biss Brook Footpath 1	Low	385396	151931	197	268
OR12	Biss Brook Footpath 2	Low	385362	152061	233	291
OR13	Westbury Dairies	Medium/ High	385631	152069	21	53

8.3.11 The above is not an exhaustive list of sensitive receptors in the local area but those chosen to represent the closest likely areas of exposure in each wind direction. The identification of receptors has been limited to an area of 500 m from the Site boundary. The adjacent Westbury Dairies facility is an industrial process and as such would typically be considered to a medium sensitive receptor. However, as this process is potentially sensitive to odour (as noted in the previous applications for the Site) the sensitivity of this receptor has been increased to medium / high.

Process Emissions - Human Sensitive Receptors

8.3.12 The general approach to the assessment is to evaluate the highest predicted process contribution to ground level concentrations. In addition, the predicted process contribution has been evaluated at a number of sensitive receptor locations. These locations are displayed in Figure 8.3 and listed in the following table.

Table 8.12: Process Emissions Sensitive Receptors

ID	Receptor Name	Location		Distance from Stack (m)
		X (m)	Y (m)	
R1	Westbury Dairies	385654	152070	134
R2	Storridge Road 1	385947	152331	318
R3	Storridge Road 2	386022	152265	314
R4	Westbury Lodge	386078	152180	316
R5	Brook Lane 1	385912	152056	125
R6	Cossington Square	386351	152058	564
R7	Primmers Place 1	386416	151994	632
R8	Primmers Place 2	386496	151911	724
R9	Station Road	386523	151833	769
R10	Bridge Court	386474	151680	783
R11	Oldfield Road	386374	151590	749
R12	Phoenix Rise	386259	151457	763
R13	Hackney Way	386112	151140	972
R14	Sandlewood Road	386035	150412	1663
R15	Brook Lane 2	385564	151571	534
R16	Brook Drove 1	385494	151811	382
R17	Penleigh Road	385503	150879	1,211

ID	Receptor Name	Location		Distance from Stack (m)
		X (m)	Y (m)	
R18	Brook Drove 2	385021	151871	788
R19	Brokerswood Road	384441	153475	1,956
R20	Brook, Heywood	385051	153408	1,539
R21	High Wood	383896	152422	1,926
R22	Bebe Tots Nursery	387461	151765	1,699
R23	Bitham Brook Primary School and Kingfisher Nurseries	387679	151716	1,922
R24	Daisy Chain Pre- School	387043	151316	1,458
R25	Matravers School	386950	150932	1,617
R26	Bright Stars Pre-School	386721	150943	1,453
R27	Bright Stars Nursery	386646	151204	1,210
R28	Westbury Infant School	386647	151274	1,162
R29	Westbury C of E Junior School	386522	151267	1,078
R30	Westbury Leigh Primary School	385983	150314	1,753
R31	Ditton Marsh C of E Primary School and Step-up Pre-School	384878	149720	2,507
R32	On Track Education Centre	385679	153095	1,045

Process Emissions - Ecological Sensitive Receptors

8.3.13 The Air Emissions Guidance states that the following sites of ecological importance should be considered:

- Special Protection Areas (SPAs), Special Areas of Conservation (SACs), or Ramsar sites within 10 km of the site (or 15 km for a coal- or oil- fired power station);
- Sites of Special Scientific Interest (SSSIs) within 2 km of the site; and
- National Nature Reserves (NNR), Local Nature Reserves (LNRs), Local Wildlife Sites (LWSs) and ancient woodlands within 2 km of the site.

8.3.14 Picket and Clanger Wood SSSI lies out of the 2 km screening boundary. However, it is located downwind of the prevailing wind direction and was included in the previous assessments for the Site. Therefore, this site has been included in the assessment. Westbury Ironstone Quarry SSSI has been identified within 2 km screening zone but is significant for geological reasons rather than ecological ones, therefore this is not

considered to be sensitive to air quality impacts and has not been considered further in this assessment.

8.3.15 The locations of these sensitive ecological receptors are listed in the following table and displayed in Figure 8.4. A review of the citation and APIS website for each site has been undertaken to determine if lichens are an important part of the ecosystem's integrity, for the purposes of determining the relevant Critical Level for the habitat.

Table 8.13: Process Emissions – Ecologically Sensitive Receptors

Site	Distance from the Stack at the Closest Point (km)	Lichens identified as present?
European designated sites within 10 km		
Salisbury Plain	3.5	Yes
UK designated sites		
Picket and Clanger Wood	2.3	Yes
Local sites within 2 km		
High Wood/Hazel Wood	1.8	Yes[1]
Round Wood	1.5	Yes[1]
Note: [1] No information available on lichen presence. Assumed 'Yes' as a conservative measure.		

8.3.16 Reference should be made to Appendix 8-3 for full details of the discrete receptor points used to assess the impact on these ecological sites, the habitats present at each site and the habitat-specific Critical Loads.

8.4 Assessment of Effects

Incorporated Mitigation

8.4.1 The Proposed Development will require an Environmental Permit in order to operate. The Permit will include a list of conditions including limits on emissions to air known as ELVs. For the purpose of this ES Chapter, it has been assumed that the Proposed Development complies with the requirements of the Environmental Permit.

8.4.2 At the Proposed Development all operations will be conducted within enclosed buildings, and vehicles would deposit waste into an enclosed tipping hall. The tipping hall would be held under negative pressure, with the air being used in the combustion

process. This prevents the release of odours and dust from the building when the doors are opened for short periods for deliveries. Residual waste would be stored within a waste bunker, albeit this would be within the enclosed waste tipping hall and waste would not be stored for prolonged periods helping to minimise the conditions which can lead to the generation of malodours. There would be no waste stored outside the buildings. Any odours from the waste stored within the bunker would be drawn into the combustion process by the induced draft fan, where the odorous compounds would be destroyed as a result of the high temperatures within the furnace. Therefore, there would be no release of odour from the stack emissions.

8.4.3 In the event of a planned shut-down / closure, the incoming waste would be managed such that residual waste in the waste bunker would be processed prior to shut-down and the amount of residual waste remaining in the waste bunker would be minimal. However, the proposals also include for a secondary odour abatement system which will involve a carbon filter to abate the odour prior to release to atmosphere via a dedicated stack. This would be in operation whenever the combustion air for the ERF is not needed. This would minimise the risk of odours during these events.

8.4.4 It should be noted that as part of the Environmental Permit needed for the Proposed Development, all emissions, including fugitive dust and odour, would be controlled to ensure there is no impact beyond the installation boundary.

Construction Phase

8.4.5 Potential air quality impacts during the construction phase have been identified as:

- Generation of dust from construction activities on Site; and
- Generation of exhaust emissions from construction phase traffic.

Generation of Dust from Construction Activities on Site

8.4.6 The risk of dust emissions from a construction site causing loss of amenity and / or health or ecological effects is related to:

- The activities being undertaken (demolition, number of vehicles and plant etc.);
- The duration of these activities;
- The size of the site;
- The meteorological conditions (wind speed, direction and rainfall);

- The proximity of receptors to the activity;
- The adequacy of the mitigation measures applied to reduce or eliminate dust; and
- The sensitivity of the receptors to dust.

8.4.7 The quantity of dust emitted is related to the area of land being worked and the level of construction activities, in terms of the nature, magnitude and duration of those activities. The wind direction, wind speed and rainfall at the time when a construction activity is taking place will also influence whether there is likely to be a dust impact. Atmospheric conditions which promote adverse impacts can occur in any direction from the site. However, adverse impacts are more likely to occur downwind of the prevailing wind direction and / or close to the worked areas. Impacts are also more likely to occur during drier periods as rainfall acts as a natural dust suppressant.

8.4.8 Dust impacts from demolition activities have been screened out from the assessment as there are no demolition activities needed to construct the Proposed Development. The dust emission magnitude for earthworks, construction and trackout activities has been classified using the criteria outlined in Table 1 of Appendix 8-2:

- Earthworks - The total area of the Site is >10,000 m^2, and there will be a considerable amount (9,900 m^3) of earth excavation and earth movement required to dig the bunker hall. The site will be levelled to 62 m AOD and the surplus material used in a screening bund adjacent to the site. On this basis, the dust emission magnitude is classified as ‘large’.
- Construction - The total building volume is likely to be >100,000m^3 and involve potentially dusty activities. As a conservative assumption, the dust emission magnitude is deemed to be 'large'.
- Trackout - The peak HGV movement during construction is 50 movements per day. For a development of this scale and nature the dust emission magnitude from trackout is deemed to be 'large'.

8.4.9 The sensitivity of the area to dust effects is defined in the following table, taking into account the number of receptors and proximity to the source of potential dust emissions using the criteria outlined in Table 2 to Table 7 of Appendix 8-2.

Table 8.14: Sensitivity of the Surrounding Area

Activity	Sensitivity	Justification
Earthworks and Construction		
Dust soiling	Low	The closest sensitive receptors are classified as medium risk receptors and over 20 m of the Site boundary. The closest high risk receptors are over 100 m from the Site boundary
Human health impacts	Low	The closest sensitive receptors are classified as medium risk receptors and are over 20 m of the Site boundary. The closest high risk receptors are over 100 m from the Site boundary. The annual mean PM_{10} concentration are <24 µg/m^3.
Ecological effects	n/a	No ecological sites have been identified within the screening distances
Trackout		
Dust soiling	High	There are 13 high risk receptors within 20 m of the routes used by construction vehicles up to 500 m from the Site entrance, which have risk of being subject to trackout.
Human health impacts	Low	There are 13 high risk receptors within 20 m of the routes used by construction vehicles up to 500 m from the Site entrance, but the annual mean PM_{10} concentration is <24 µg/m^3.
Ecological effects	n/a	No ecological sites have been identified within the screening distances

8.4.10 The risk of dust impacts from construction activities is summarised in the following table. This is based on the dust emission magnitude and the sensitivity of the area.

Table 8.15: Summary of Dust Risk to Define Site Specific Mitigation

Activity	Risk	Justification
Demolition	N/a	No demolition activities to take place.
Earthworks	Low Risk	The dust emission magnitude is large but the sensitivity of the area is low.
Construction	Low Risk	The dust emission magnitude is large but the sensitivity of the area is low.
Trackout	High Risk	The dust emission magnitude is large and the sensitivity of the area to dust soiling is high.

8.4.11 In summary, the Site has been assessed to be of low risk for dust soiling and human health effects associated with earthworks and construction activities. However, the risk of the Site has been assessed as high risk for dust soiling and human health effects associated with trackout activities. There is no risk of ecological impacts.

8.4.12 In accordance with the IAQM assessment methodology, the risk category of the site is used to define suitable mitigation measures to minimise the risk which would be implemented via the Construction Environmental Management Plan (CEMP). Potential mitigation measures are detailed in the mitigation section of this chapter. These are based on a low risk site for earthworks and construction and high risk site for trackout. With the implementation of these mitigation measures the residual risk is not expected to be significant.

8.4.13 It should be recognised that any impacts would be temporary in nature, short-term in duration and would only occur during the construction period.

Generation of Exhaust Pollutants from Construction Phase Traffic

8.4.14 As set out in chapter 10 the number of construction phase vehicles is 250 AADT of which 50 are HGVs. This does not exceed the screening criteria – i.e. the change in LDV flows is less than 500 AADT, and the change in HGV flows is less than 100 AADT. Therefore, the Proposed Development is not expected to cause a significant change and the significance of effect is deemed to be negligible. Further consideration has been made to the change in vehicle numbers in the AQMA. This has shown that the predicted change in vehicles is 66 AADT of which 14 are HGVs. This does not exceed the screening threshold of 25 HGVs in an AQMA. Therefore, the Proposed Development is not expected to cause a significant change in vehicle numbers in the AQMA and the significance of effect is deemed to be negligible.

Operational Phase

8.4.15 Potential air quality impacts during the operational phase have been identified as:

- Generation of exhaust pollutants from operational phase traffic;
- Generation of process emissions from the Proposed Development; and
- Generation of dust and odour from operational phase activities on Site.

Generation of Exhaust Pollutants from Operational Phase Traffic

8.4.16 As set out in chapter 10 the number of operational phase vehicles is 110 AADT of which 54 are HGVs. This does not exceed the screening criteria – i.e. the change in LDV flows is less than 500 AADT, and the change in HGV flows is less than 100

AADT. Therefore, the Proposed Development is not expected to cause a significant change and the significance of effect is deemed to be negligible. Further consideration has been made to the change in vehicle numbers in the AQMA. This has shown that the predicted change in vehicles is 32 AADT of which 16 are HGVs. This does not exceed the screening threshold of 25 HGVs in an AQMA. Therefore, the Proposed Development is not expected to cause a significant change in vehicle numbers in the AQMA and the significance of effect is deemed to be negligible.

Operational Phase Process Emissions

8.4.17 Full details of the modelling methodology, input parameters, assumptions, sensitivity analysis, and results can be found in Appendix 8-3.

8.4.18 It should be noted that the first stage of the assessment is considered highly conservative as it assumes that:

- The Proposed Development operates at the ELVs for the entire year;
- The worst-case conversion of NOx to NO_2 has been applied;
- The entire dust emissions are assumed to consist of either PM_{10} or $PM_{2.5}$;
- The entire Volatile Organic Compound (VOC) emissions are assumed to consist of either benzene or 1,3-buitadiene; and
- Cadmium is released at the combined ELV for cadmium and thallium.

8.4.19 The following tables provides a summary of the maximum impact of process emissions when the Proposed Development is operating at the daily and short-term ELVs

Table 8.16: Summary of Dispersion Modelling Results – Point of Maximum Impact – Daily ELVs

Pollutant	Quantity	Units	AQAL	Background	PC	PC as % of AQAL	PEC	PEC as % of AQAL
Nitrogen dioxide	Annual mean	µg/m³	40	13.19	0.76	1.89%	13.95	34.87%
	99.79th%ile of hourly means	µg/m³	200	26.38	5.04	2.52%	31.42	15.71%
Sulphur dioxide	99.18th%ile of daily means	µg/m³	125	4.42	1.89	1.51%	6.31	5.05%
	99.73rd%ile of hourly means	µg/m³	350	4.42	3.57	1.02%	7.99	2.28%
	99.9th%ile of 15 min. means	µg/m³	266	4.42	4.06	1.53%	8.48	3.19%
PM_{10}	Annual mean	µg/m³	40	14.91	0.05	0.11%	14.96	37.39%
	90.41th%ile of daily means	µg/m³	50	29.82	0.15	0.30%	29.97	59.94%
$PM_{2.5}$	Annual mean	µg/m³	25	9.77	0.05	0.18%	9.82	39.26%
Carbon monoxide	8 hour running mean	µg/m³	10,000	532	8.20	0.08%	540.20	5.40%
	Hourly mean	µg/m³	30,000	532	10.63	0.04%	542.63	1.81%
Hydrogen chloride	Hourly mean	µg/m³	750	1.42	1.27	0.17%	2.69	0.36%
Hydrogen fluoride	Annual mean	µg/m³	16	2.35	0.01	0.06%	2.36	14.74%
	Hourly mean	µg/m³	160	4.7	0.21	0.13%	4.91	3.07%
Ammonia	Annual mean	µg/m³	180	2.93	0.09	0.05%	3.02	1.68%
	Hourly mean	µg/m³	2,500	5.86	2.13	0.09%	7.99	0.32%
VOCs (as benzene)	Annual mean	µg/m³	5	0.39	0.09	1.80%	0.48	9.60%

Pollutant	Quantity	Units	AQAL	Background	PC	PC as % of AQAL	PEC	PEC as % of AQAL
VOCs (as benzene)	Hourly mean	µg/m³	195	0.78	2.13	1.09%	2.91	1.49%
VOCs (as 1,3-butadiene)	Annual mean	µg/m³	2.25	0.16	0.09	4.01%	0.25	11.12%
Mercury	Annual mean	ng/m³	250	20.01	0.18	0.07%	20.19	8.08%
	Hourly mean	ng/m³	7500	40.02	4.25	0.06%	44.27	0.59%
Cadmium	Annual mean	ng/m³	5	0.57	0.18	3.61%	0.75	15.01%
	Hourly mean	ng/m³	-	1.14	4.25	-	5.39	-
PAHs	Annual mean	pg/m³	250	980	0.95	0.38%	980.95	392.38%
Dioxins	Annual mean	fg/m³	-	32.99	0.54	-	33.53	-
PCBs	Annual mean	ng/m³	200	0.13	0.05	0.02%	0.17	0.09%
	Hourly mean	ng/m³	6000	0.26	1.06	0.02%	1.32	0.02%

Table 8.17: Summary of Dispersion Modelling Results – Point of Maximum Impact – Short-term ELVs

Pollutant	Quantity	Units	AQAL	Background	PC	PC as % of AQAL	PEC	PEC as % of AQAL
Nitrogen dioxide	99.79th%ile of hourly means	µg/m³	200	26.38	16.80	8.40%	43.18	21.59%
Sulphur dioxide	99.73rd%ile of hourly means	µg/m³	350	4.42	23.81	6.80%	28.23	8.07%
	99.9th%ile of 15 min. means	µg/m³	266	4.42	27.07	10.18%	31.49	11.84%
Carbon monoxide	8 hour running mean	µg/m³	10,000	532	16.40	0.16%	548.40	5.48%
	Hourly mean	µg/m³	30,000	532	21.27	0.07%	553.27	1.84%
Hydrogen chloride	Hourly mean	µg/m³	750	1.42	12.74	1.70%	14.16	1.89%
Hydrogen fluoride	Hourly mean	µg/m³	160	4.7	0.85	0.53%	5.55	3.47%
VOCs (as benzene)	Hourly mean	µg/m³	195	0.78	4.25	2.18%	5.03	2.58%
Mercury	Hourly mean	ng/m³	7,500	40.02	7.44	0.10%	47.46	0.63%

8.4.20 As shown, at the point of maximum impact the contribution from the Proposed Development is less than 10% of the short term AQAL and less than 0.5% of the annual mean AQAL and can be screened out as negligible irrespective of the total concentration in accordance with the stated assessment methodology, with the exception for the following:

- Annual mean nitrogen dioxide impacts;
- 15-minute sulphur dioxide impacts;
- Annual mean VOC impacts; and
- Annual mean cadmium impacts.

8.4.21 For the above, further analysis of the likely future baseline concentrations has been undertaken to define the magnitude of change for annual mean impacts for, and the extent of relevant exposure has been undertaken to determine the magnitude of change for short-term impacts

Annual mean nitrogen dioxide impacts

8.4.22 For annual mean nitrogen dioxide, the process contribution at the point of maximum impact is 1.89% of the AQAL. Therefore, consideration needs to be given to baseline concentrations in order to determine the PEC. Figure 8.5 shows the spatial distribution of annual mean nitrogen dioxide impacts as a percentage of the annual mean AQAL. As shown, the point of maximum impact occurs in a small field to the north east of the proposed development off Station Road (i.e. an area where the annual mean AQAL does not apply). Baseline concentrations in the area where the point of maximum impact occurs are likely to be similar to the mapped background concentration (i.e. 13.19 µg/m^3). Applying this baseline concentration, the PEC at the point of maximum impact would be 34.87% of the AQAL. Therefore, using IAQM guidance the magnitude of change is described as negligible as the process contribution is less than 5.5% of the AQAL and the PEC is less than 75% of the AQAL.

8.4.23 The impact at local residential receptors has also been investigated, the detailed results table is provided in Appendix 8-3. Using the IAQM guidance, the impact at all but nine of the identified specific sensitive receptor locations is less than 0.5% of the AQAL and so can be described as negligible irrespective of baseline concentrations.

8.4.24 The area where impacts are greater than 0.5% of the AQAL are two distinct areas to the south-west and north-east of the Proposed Development. As shown in Figure 8.5.

8.4.25 The area to the south-west where the process contribution is greater than 0.5% of the AQAL includes the receptors identified as R15, R16 and R18. There are a few additional residential properties in this area which are not included as specific receptors. This area is distanced from any main road and therefore baseline concentrations are likely to be similar to the mapped background concentration which is 13.19 µg/m^3 (or 33 % of the AQAL). The PEC is well below 75% of the AQAL. Therefore, using the IAQM guidance the magnitude of change is described as negligible.

8.4.26 The area to the north-east where the process contribution is greater than 0.5% of the AQAL includes the receptors identified as R2 to R4 and R6 to R9. These are all located along Storridge Road and the B3097.There are also a number of additional residential properties in this area which are not included as specific receptors. This area is adjacent to the road and therefore baseline concentrations are likely to be greater than the mapped background concentration.

8.4.27 A review of the local monitoring (Appendix 8-1) shows that analyser P18/108 is most likely to be representative of conditions adjacent to Storridge Road and the B3097. Monitoring at this site is only available from 2018. However, this showed that monitored concentrations were 17 µg/m^3 (or .42.5% of the AQAL). The other site of note is P18/57 which is located adjacent to the A350 which is a much busier road. Concentrations at this site ranged between 29 µg/m^3 and 36 µg/m^3 (or 72.5% and 90% of the AQAL) between 2015 and 2018. This is only really applicable for conditions along the A350 due to the significantly higher traffic rates along this road.

8.4.28 Even applying the worst-case assumption that baseline concentrations for receptors along Storridge Road and the B3097 are similar to that monitored along the A350 the PEC is less than 95% of the AQAL. As the process contribution is between 0.5% and 1.5% of the AQAL in this area the magnitude of change is described as negligible.

8.4.29 It is noted that operational phase vehicles will travel along the local road network and are a source of emissions of oxides of nitrogen. As set out previously, the change in

vehicle numbers is well below the screening threshold and deemed to be negligible. It is unlikely that the magnitude of change would be described as anything other than negligible even if the additional contribution from road traffic is included, as the contribution from process emissions is small and the baseline concentrations relatively low. Therefore, the in combination nitrogen dioxide impact of process and road traffic emissions is deemed to be negligible.

8.4.30 As shown in Figure 8.5 the impact of process emissions is well below 0.5% of the AQAL in the AQMA. The maximum impact is between 0.2 and 0.4% of the AQAL. Therefore, the magnitude of change in the AQMA is described as negligible. Again, the change in vehicle numbers of well below the screening threshold and deemed to be negligible. It is unlikely that the magnitude of change would be described as anything other than negligible even if the additional contribution from road traffic is included, as the contribution from process emissions is small and the baseline concentrations relatively low. Therefore, the in combination nitrogen dioxide impact of process and road traffic emissions in the AQMA is deemed to be negligible.

15-minute sulphur dioxide impacts

8.4.31 As shown in Table 8.17, the 99.9th percentile of 15-minute sulphur dioxide PC from the Proposed Development is predicted to be 10.18% of the AQAL at the point of maximum impact if it assumed that the plant operates at the half-hourly ELV as set out in the IED (i.e. 200 mg/Nm^3). This is four times the daily ELV set in the IED (50 mg/Nm^3). The Waste Incineration BREF introduces a more stringent limit of 30 mg/Nm^3. If the same ratio is applied the maximum process contribution is predicted to be 6.11% of the AQAL. It is unlikely that the plant would operate at the half-hourly ELV during the worst-case weather conditions for dispersion. Therefore, there is little risk that the impact would exceed 10% of the AQAL and the magnitude of change is deemed to be negligible.

Annual mean VOCs impacts

8.4.32 For annual mean VOCs if it is assumed that the entire VOC emissions consist of only benzene, the process contribution at the point of maximum impact is 1.80% of the AQAL. The detailed receptor results (Table 19 in Appendix 8-3) shows that the maximum impact at a receptor is 1.17% of the AQAL. When the baseline concentration of 0.39 µg/m^3 is included, the PEC at the point of maximum impact and at all receptor locations is well below 75% of the AQAL. Therefore, the magnitude of

change is described as negligible, as the maximum impact is less than 5.5% of the AQAL and the PEC is less than 75% of the AQAL. Figure 8.6 shows the spatial distribution of emissions. This is extremely conservative as it assumes that the VOC emissions consist of only benzene.

8.4.33 If it is assumed that the entire VOC emissions consist of only 1,3-butadiene, the process contribution at the point of maximum impact is 4.01% of the AQAL. The detailed receptor results (Table 20 in Appendix 8-3) shows that the maximum impact at a receptor is 2.60% of the AQAL. When the baseline concentration of 0.16 µg/m³ is included, the PEC at the point of maximum impact and at all receptor locations is well below 75% of the AQAL. Therefore, the magnitude of change is described as negligible, as the maximum impact is less than 5.5% of the AQAL and the PEC is less than 75% of the AQAL. Figure 8.7 shows the spatial distribution of emissions. This is extremely conservative as it assumes that the VOC emissions consist of only 1,3-butadiene.

Annual mean cadmium

8.4.34 For annual mean cadmium, the process contribution at the point of maximum impact is 3.61% of the AQAL. The detailed receptor results (Table 21 in Appendix 8-3 shows that the maximum impact at a receptor is 2.34% of the AQAL. When the baseline concentration of 0.57 ng/m³ is included, the PEC at the point of maximum impact and at all receptor locations is well below 75% of the AQAL. Therefore, the magnitude of change is described as negligible, as the maximum impact is less than 5.5% of the AQAL and the PEC is less than 75% of the AQAL. This is extremely conservative as it assumes that the entire cadmium and thallium emissions consist of only cadmium. As detailed in Appendix 8-3 monitoring from facilities processing a similar fuel has indicated that average recorded concentration of cadmium and thallium is 8% of the limit. Figure 8.8 shows the spatial distribution of emissions for the following scenarios:

- Screening - assumes emissions of cadmium at 100% of the ELV for cadmium and thallium
- Worst-case - assumes emissions of cadmium at 50% of the ELV for cadmium and thallium
- Typical - assumes emissions of cadmium at 8% of the ELV for cadmium and thallium

Annual mean heavy metals

8.4.35 The Environment Agency's metals screening guidance has been followed as detailed in Appendix 8-3 This has shown that if it is assumed that the Proposed Development will perform no worse than a currently permitted facility, the predicted process contribution is below 1% of the annual mean AQAL and 10% of the 1-hour AQAL for all metals, with the exception of annual mean arsenic and nickel impacts. However, the PECs for arsenic and nickel are well below 100% of the AQAL and so the impacts can be screened out and the significance of effect of process emissions of metals on human health is considered negligible.

Dioxins and dioxin-like PCBs

8.4.36 A human health risk assessment has been undertaken (see Appendix 8-4). This considers the impact of dioxins and dioxins-like PCBs which have the potential to accumulate in the food chain. This has shown that the impact of the Proposed Development on human health due to the accumulation of dioxins and dioxins-like PCBs in the environment is predicted to be negligible.

Summary of Process Emissions Impacts on Human Health

8.4.37 The assessment of process emissions has drawn the following conclusions:

- The process contribution for most pollutants can be described as negligible irrespective of baseline concentration at the point of maximum impact. However, further analysis has been needed for annual mean impacts of nitrogen dioxide, VOCs and cadmium, and short-term sulphur dioxide impacts.
- When the baseline concentrations are taken into account the magnitude of change of annual mean concentrations is negligible at all areas of relevant exposure. This includes consideration of the in-combination impact of process and road traffic emissions.
- Further analysis of the short-term sulphur dioxide impacts concludes that there is little risk that impacts would be greater than 10% of the AQAL and therefore the magnitude of change is negligible.
- The magnitude of change of nitrogen dioxide emissions in the AQMA can be described as negligible. This includes consideration of the in combination impact of process and road traffic emissions.

- The impact of most metals on human health can be screened out as insignificant irrespective of baseline concentration. However, further analysis has been needed for the impacts of arsenic, and nickel. When baseline concentrations are taken into account, the PEC is well below the AQAL and the impacts can be screened out. Therefore, the effect of process emissions of metals on human health is considered negligible.

8.4.38 Using professional judgement, based on the conservatism in the process emissions modelling assumptions, the overall process emissions associated with the operation of the Proposed Development is predicted to have a 'negligible' and 'not significant' effect on human health.

Impact of Process Emissions on Ecology

8.4.39 Full detailed results tables are provided in Appendix 8-3 showing the impact of process emissions at the identified ecological sites. As shown, the impact is less than 1% of the long-term and less than 10% of the short-term critical level and loads and can be screened out as insignificant for all sites with the exception of Picket and Clanger Wood SSSI. At this site the impacts of the following are greater than the screening criteria:

- Annual mean oxides of nitrogen emissions
- Annual mean ammonia emissions;
- Nitrogen deposition on woodland habitats; and
- Acid deposition on woodland habitats

8.4.40 Further analysis has been undertaken to determine the significance of the impact on Pickett and Clanger Wood SSSI. This analysis is provided in Appendix 8-5 (Ecological Interpretation of Air Quality Assessment.

Plume grounding

8.4.41 The plume visibility modelling can be used to predict the number of visible plumes grounding. This has shown that a visible plume is not predicted to ground under any meteorological condition. This is due to the relatively high temperature of the release ensuring the plume remains buoyant and disperses effectively in the atmosphere.

Operational Phase Dust and Odour Emissions

8.4.42 The IAQM (2018) guidance sets out a methodology for estimation of the effect of odour on a receptor, taking into account the risk of odour exposure (which is a function of the source odour potential and pathway effectiveness) and receptor sensitivity.

8.4.43 The aspects of the Proposed Development likely to give rise to dust and odour are the delivery and unloading of waste. The closest receptor to the Site boundary is Westbury Dairies. It is also the closest receptor to the Tipping Hall where any potential odour would originate. Westbury Dairies is located approximately 53 m from the Tipping Hall. As a place of work, this is considered to be a medium sensitivity receptor. However, as a conservative approach as it has been identified that the potential for odour to taint the milk during the drying process has been raised this has been assessed as a high sensitive receptor.

8.4.44 The odour source potential is considered to be 'small' as the planned odour containment and mitigation measures embedded in the design of the Proposed Development as set out previously are intended to prevent an unacceptable level of odour beyond the Site boundary. In the event of an unplanned shut-down, the combustion process would not be using air extracted from the odourous areas of the building as combustion air. However, the air would be transferred to the odour abatement system and vent to atmosphere via the dedicated stack. Therefore, the odour source potential would remain small.

8.4.45 The risk of odour from the proposed processes at distances greater than 500 m from the source is minimal as odour would dissipate with distance from the source. If odours were to be released from the Proposed Development these would originate from the Tipping Hall. Under calm conditions odour would remain close to this area whereas during turbulent conditions odour would be moved away from the area and dissipate.

8.4.46 The wind roses from Lyneham for 2015 to 2019 (Figure 3 of Appendix 8-3) have been reviewed. There is a distinct peak in frequency of winds from the south west, with a secondary peak in winds from the north-east, winds from other directions occurring with a relatively uniform low frequency. When considering wind direction,

receptors located downwind of the peak in wind direction frequency (to the north-east) have the most effective odour pathway. Receptors not located downwind of the peak wind direction have an ineffective pathway.

8.4.47 Excluding Westbury Dairies (OR13), all identified receptors are over 170 m from the Tipping Hall, as shown on Figure 8.2.

8.4.48 The effectiveness of the pathway from the source to each receptor has been considered using the criteria in Table 8.6.

- OR1 to OR4 are located over 180 m from the source of odour (the Tipping Hall). This is down-wind of the peak in wind directions, but the receptor is at a far enough distance that odour would have dissipated by this point. There will also be some screening provided by the rest of the building. Therefore, the pathway effectiveness to OR1 to OR4 is considered to be 'ineffective'.
- OR5 to OR8 are over 170 m from the source of odour (the Tipping Hall) and winds do not frequently blow in this direction. There will also be some screening provided by the rest of the building for OR5 and OR6. Therefore, the pathway effectiveness to OR5 to OR8 is considered to be 'ineffective'.
- OR9 to OR11 are located over 230 m from the source of odour (the Tipping Hall). This is down-wind of the secondary peak in wind directions, but the receptors are at a far enough distance that odour would have dissipated by this point. Therefore, the pathway effectiveness to OR9 to OR11 is considered to be 'ineffective'
- OR12 is located over 290 m from the source of odour (the Tipping Hall) and winds do not frequently blow in this direction. Therefore, the pathway effectiveness to OR12 is considered to be 'ineffective'
- OR13 is located adjacent to the Site and only 20 m from the potential source of odour (the Tipping Hall). Although mitigation measures should control odour, and winds do not frequently blow in the direction of the receptor, because of its close proximity, the pathway effectiveness to OR13 is 'highly effective'.

8.4.49 Using the criteria in Table 8.8 and Table 8.9, the likely magnitude of odour effects at the receptors considered has been determined as detailed in the following table based on a 'large' odour source potential as a conservative assumption.

Table 8.18: Likely Magnitude of Odour Effects at Receptors

Receptor		Pathway effectiveness	Risk of odour exposure	Likely magnitude of effect
OR1	Oakfield Business Centre	Ineffective	Negligible Risk	Negligible
OR2	23 Storridge Road	Ineffective	Negligible Risk	Negligible
OR3	Savencia Fromage & Dairy UK	Ineffective	Negligible Risk	Negligible
OR4	Brook Lane 1 (Residential)	Ineffective	Negligible Risk	Negligible
OR5	Brook Lane 2 (Trading)	Ineffective	Negligible Risk	Negligible
OR6	Brook Lane 3 (Trading)	Ineffective	Negligible Risk	Negligible
OR7	Brook Lane 4(Trading)	Ineffective	Negligible Risk	Negligible
OR8	Brook Lane 5 (Residential)	Ineffective	Negligible Risk	Negligible
OR9	Brook Drove 1 (Farm)	Ineffective	Negligible Risk	Negligible
OR10	Brook Drove 2 (Residential)	Ineffective	Negligible Risk	Negligible
OR11	Biss Brook Footpath 1	Ineffective	Negligible Risk	Negligible
OR12	Biss Brook Footpath 2	Ineffective	Negligible Risk	Negligible
OR13	Westbury Dairies	Highly effective	Low Risk	Slight Adverse

8.4.50 The likely odour effect under the worst case scenario is ‘negligible’ at receptors with the exception of the Westbury Dairies (OR13), where the effect would be slight adverse.

8.4.51 The IAQM 2018 odour guidance states that ‘where the overall effect is greater than ‘slight adverse’, the effect is likely to be considered significant. Therefore, as the effect at any receptor location is not greater than ‘slight adverse’, the odour effect of the operation of the Proposed Development is not significant.

8.4.52 In order to assess the impact of fugitive dust from the operational phase of the Proposed Development the principals of the approach used to determine construction phase dust impacts have been applied.

8.4.53 A review of the proposals has shown that, during the operational phase, the most significant sources of fugitive dust would arise from the delivery and unloading of waste to the Proposed Development. Noting that the Environmental Permit would ensure any fugitive dust would be controlled to ensure there is no impact beyond the installation Site boundary, the likelihood of significant dust arisings during the operational phase is minimal.

8.4.54 Based on the inherent mitigation the dust emission magnitude of fugitive dust is deemed to be 'small'. All high sensitive receptors are over 200 m from the Tipping Hall and all medium receptors are over 50 m from the Tipping Hall. Baseline PM_{10} concentrations are less than 24 µg/m^3. Therefore, the sensitivity of the area is deemed to be 'low'. The risk of dust impacts during the operational phase is deemed to be 'negligible' as the magnitude of dust emissions is 'small' and the sensitivity of the area is 'low'.

8.4.55 The operational phase fugitive emissions of dust and odour associated with the operation of the Proposed Development are predicted to have a negligible and not significant effect**.**

Bio-aerosols

8.4.56 The previous applications for the site considered the risk of bioaerosol generation and the potential to affect the existing air filtration system at Westbury Dairies. The ES for the 2019 Permission included an assessment of the potential release of bio-aerosols. The 2008 planning application for the Northarce RRC including the MBT had required this due to concerns raised by Westbury Dairies and it was therefore echoed in the ES Scoping received from Wiltshire Council in Nov 2014.

8.4.57 This application is seeking permission for advanced thermal treatment plant using moving grate technology. The Facility will accept residual household waste and C&I wastes which generally has a low organic content. Waste will be delivered and unloaded within the tipping hall which would be kept under negative pressure. The air from the tipping hall would be used as combustion air in the Facility. Any bioaerosols in the extracted air would be removed during the incineration process prior to release via the main stack. Therefore, the potential for bioaerosols to be in the waste is low and there is little risk of any releases during normal operations. The risk of bioaerosol release when the Facility is offline during planning maintenance is low as the level of waste in the bunker would be managed to ensure waste would not be left in the bunker for long periods. In addition, the secondary odour abatement system would act to mitigate and disperse any low residual levels In the event of an unplanned shut-down where the Facility cannot be re-started the secondary odour abatement system would be in operation and any waste would be removed for processing at an alternative facility. These measures would be detailed in the

Environmental Permit application. Therefore, the potential for bioaerosol releases from the Facility is negligible and not significant.

Cumulative Effects

8.4.58 No cumulative schemes have been identified as requiring assessment. Therefore, there is no potential for cumulative effects.

8.5 Mitigation

Construction Phase Mitigation Measures

8.5.1 The construction dust assessment has identified that the risk of the Site causing dust impacts from earthworks and construction is low. However, there is a high risk of impacts from trackout during the period of peak construction.

8.5.2 Appropriate mitigation measures to minimise any impacts as a result of trackout, as highly recommended in the IAQM guidance for a high risk site, are listed here:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Record all inspections of haul routes and any subsequent action in a site log book.
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
- Access gates to be located at least 10 m from receptors where possible.

8.5.3 Further highly recommended mitigation measures for all sites from the IAQM guidance are listed here:

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
- Display the name and contact details of person(s) account-able for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.
- Develop and implement a Dust Management Plan (DMP).
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.
- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to visually monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.

- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.
- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
- Avoid bonfires and burning of waste materials.

Operational Phase Mitigation Measures

8.5.4 In relation to operational impacts, no additional mitigation is required beyond that imbedded into the design and required by legislation, that will be regulated by the Environment Agency under an Environmental Permit.

8.6 Residual Effects and Conclusions

8.6.1 Mitigation measures have been recommended to control construction phase dust impacts in line with the IAQM guidance. With the implementation of these measures any residual effects are deemed to be not significant. No further mitigation measures, beyond those included for in the design of the Facility and legislation, have been recommended.

8.6.2 In conclusion, the Proposed Development is not predicted to give rise to significant environmental effects on air quality, human health and odour in the local area either during the construction or operational phases

8.6.3 Generally, the impact of process emissions is less than the previously consented scheme due to the reduction in the ELVs associated with the implementation of the Waste Incineration BREF. The 2018 ES concluded that the impact of the Proposed Development would be not significant – i.e. the same as this assessment for the revised scheme.

Department for Communities and Local Government

National Planning Policy for Waste

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Department for Communities and Local Government

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National Planning Policy for Waste

Introduction

1. The Waste Management Plan for England[1] sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management. Positive planning plays a pivotal role in delivering this country's waste ambitions through:

- delivery of sustainable development and resource efficiency, including provision of modern infrastructure, local employment opportunities and wider climate change benefits, by driving waste management up the waste hierarchy (see Appendix A);
- ensuring that waste management is considered alongside other spatial planning concerns, such as housing and transport, recognising the positive contribution that waste management can make to the development of sustainable communities;
- providing a framework in which communities and businesses are engaged with and take more responsibility for their own waste, including by enabling waste to be disposed of or, in the case of mixed municipal waste from households, recovered, in line with the proximity principle[2];
- helping to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment; and
- ensuring the design and layout of new residential and commercial development and other infrastructure (such as safe and reliable transport links) complements sustainable waste management, including the provision of appropriate storage and segregation facilities to facilitate high quality collections of waste.

This document sets out detailed waste planning policies. It should be read in conjunction with the National Planning Policy Framework[3], the Waste Management Plan for England and National Policy Statements for Waste Water and Hazardous Waste, or any successor documents. All local planning authorities should have regard to its policies when discharging their responsibilities to the extent that they are appropriate to waste management.

Using a proportionate evidence base

2. In preparing their Local Plans, waste planning authorities should, to the extent appropriate to their responsibilities:

- ensure that the planned provision of new capacity and its spatial distribution is based on robust analysis of best available data and information, and an appraisal of options. Spurious precision should be avoided;

[1] http://www.gov.uk/government/publications/waste-management-plan-for-england
[2] See Schedule 1, Part 1, paragraph 4 of The Waste (England and Wales) Regulations 2011 (S.I 2011/988)
[3] https://www.gov.uk/government/publications/national-planning-policy-framework--2

- work jointly and collaboratively with other planning authorities to collect and share data and information on waste arisings, and take account of:

  (i) waste arisings across neighbouring waste planning authority areas;

  (ii) any waste management requirement identified nationally, including the Government's latest advice on forecasts of waste arisings and the proportion of waste that can be recycled; and

- ensure that the need for waste management facilities is considered alongside other spatial planning concerns, recognising the positive contribution that waste management can bring to the development of sustainable communities.

Identify need for waste management facilities

3. Waste planning authorities should prepare Local Plans which identify sufficient opportunities to meet the identified needs of their area for the management of waste streams. In preparing Local Plans, waste planning authorities should:

- undertake early and meaningful engagement with local communities so that plans, as far as possible, reflect a collective vision and set of agreed priorities when planning for sustainable waste management, recognising that proposals for waste management facilities such as incinerators can be controversial;

- drive waste management up the waste hierarchy (Appendix A), recognising the need for a mix of types and scale of facilities, and that adequate provision must be made for waste disposal;

- in particular, identify the tonnages and percentages of municipal, and commercial and industrial, waste requiring different types of management in their area over the period of the plan (In London, waste planning authorities should have regard to their apportionments set out in the London Plan when preparing their plans);

- consider the need for additional waste management capacity of more than local significance and reflect any requirement for waste management facilities identified nationally;

- take into account any need for waste management, including for disposal of the residues from treated wastes, arising in more than one waste planning authority area but where only a limited number of facilities would be required;

- work collaboratively in groups with other waste planning authorities, and in two-tier areas with district authorities, through the statutory duty to cooperate, to provide a suitable network of facilities to deliver sustainable waste management;

- consider the extent to which the capacity of existing operational facilities would satisfy any identified need.

Identifying suitable sites and areas

4. Waste planning authorities should identify, in their Local Plans, sites and/or areas for new or enhanced waste management facilities in appropriate locations. In preparing their plans, waste planning authorities should:

- identify the broad type or types of waste management facility that would be appropriately located on the allocated site or in the allocated area in line with the waste hierarchy, taking care to avoid stifling innovation (Appendix A);

- plan for the disposal of waste and the recovery of mixed municipal waste in line with the proximity principle, recognising that new facilities will need to serve catchment areas large enough to secure the economic viability of the plant;

- consider opportunities for on-site management of waste where it arises;

- consider a broad range of locations including industrial sites, looking for opportunities to co-locate waste management facilities together and with complementary activities. Where a low carbon energy recovery facility is considered as an appropriate type of development, waste planning authorities should consider the suitable siting of such facilities to enable the utilisation of the heat produced as an energy source in close proximity to suitable potential heat customers;

- give priority to the re-use of previously-developed land, sites identified for employment uses, and redundant agricultural and forestry buildings and their curtilages.

5. Waste planning authorities should assess the suitability of sites and/or areas for new or enhanced waste management facilities against each of the following criteria:

- the extent to which the site or area will support the other policies set out in this document;

- physical and environmental constraints on development, including existing and proposed neighbouring land uses, and having regard to the factors in Appendix B to the appropriate level of detail needed to prepare the Local Plan;

- the capacity of existing and potential transport infrastructure to support the sustainable movement of waste, and products arising from resource recovery, seeking when practicable and beneficial to use modes other than road transport; and

- the cumulative impact of existing and proposed waste disposal facilities on the well-being of the local community, including any significant adverse impacts on environmental quality, social cohesion and inclusion or economic potential.

6. Green Belts have special protection in respect to development. In preparing Local Plans, waste planning authorities, including by working collaboratively with other

planning authorities, should first look for suitable sites and areas outside the Green Belt for waste management facilities that, if located in the Green Belt, would be inappropriate development. Local planning authorities should recognise the particular locational needs of some types of waste management facilities when preparing their Local Plan.

Determining planning applications

7. When determining waste planning applications, waste planning authorities should:

- only expect applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities where proposals are not consistent with an up-to-date Local Plan. In such cases, waste planning authorities should consider the extent to which the capacity of existing operational facilities would satisfy any identified need;

- recognise that proposals for waste management facilities such as incinerators that cut across up-to-date Local Plans reflecting the vision and aspiration of local communities can give rise to justifiable frustration, and expect applicants to demonstrate that waste disposal facilities not in line with the Local Plan, will not undermine the objectives of the Local Plan through prejudicing movement up the waste hierarchy;

- consider the likely impact on the local environment and on amenity against the criteria set out in Appendix B and the locational implications of any advice on health from the relevant health bodies**.** Waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies;

- ensure that waste management facilities in themselves are well-designed, so that they contribute positively to the character and quality of the area in which they are located;

- concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced;

- ensure that land raising or landfill sites are restored to beneficial after uses at the earliest opportunity and to high environmental standards through the application of appropriate conditions where necessary.

8. When determining planning applications for non-waste development, local planning authorities should, to the extent appropriate to their responsibilities, ensure that:

- the likely impact of proposed, non-waste related development on existing waste management facilities, and on sites and areas allocated for waste management, is acceptable and does not prejudice the implementation of the waste hierarchy and/or the efficient operation of such facilities;

- new, non-waste development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape. This includes providing adequate storage facilities at residential premises, for example by ensuring that there is sufficient and discrete provision for bins, to facilitate a high quality, comprehensive and frequent household collection service;

- the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal.

Monitoring and Report

9. To inform the preparation of Local Plans and to inform the determination of planning applications as part of delivering sustainable waste management, local planning authorities should, to the extent appropriate to their responsibilities, monitor and report:

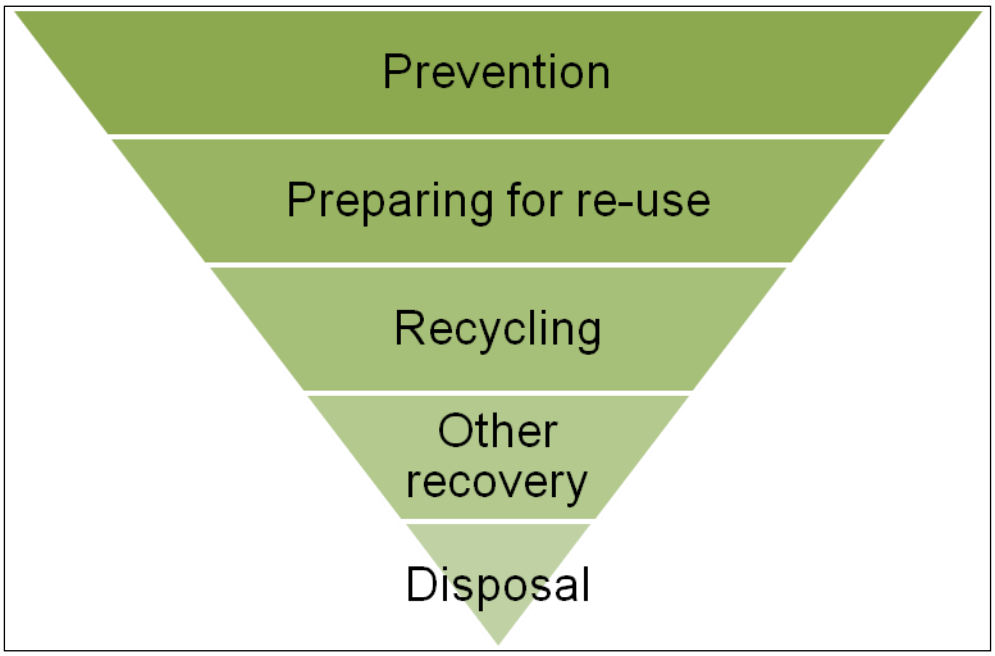
- take-up in allocated sites and areas;

- existing stock and changes in the stock of waste management facilities, and their capacity (including changes to capacity); waste arisings; and,

- the amounts of waste recycled, recovered or going for disposal.

Appendix A

The Waste Hierarchy



- the most effective environmental solution is often to reduce the generation of waste, including the re-use of products – *prevention*[4]
- products that have become waste can be checked, cleaned or repaired so that they can be re-used – *preparing for re-use*
- waste materials can be reprocessed into products, materials, or substances – *recycling*
- waste can serve a useful purpose by replacing other materials that would otherwise have been used – *other recovery*
- the least desirable solution where none of the above options is appropriate – *disposal*

[4] The full definition of each level of the waste hierarchy is set out in Article 3 of the revised Waste Framework Directive (2008/98/EC); see also the Waste Management Plan for England

Appendix B

Locational Criteria

In testing the suitability of sites and areas in the preparation of Local Plans and in determining planning applications, waste planning authorities should consider the factors below. They should also bear in mind the envisaged waste management facility in terms of type and scale.

a. protection of water quality and resources and flood risk management
Considerations will include the proximity of vulnerable surface and groundwater or aquifers. For landfill or land-raising, geological conditions and the behaviour of surface water and groundwater should be assessed both for the site under consideration and the surrounding area. The suitability of locations subject to flooding, with consequent issues relating to the management of potential risk posed to water quality from waste contamination, will also need particular care.

b. land instability
Locations, and/or the environs of locations, that are liable to be affected by land instability, will not normally be suitable for waste management facilities.

c. landscape and visual impacts
Considerations will include (i) the potential for design-led solutions to produce acceptable development which respects landscape character; (ii) the need to protect landscapes or designated areas of national importance (National Parks, the Broads, Areas of Outstanding Natural Beauty and Heritage Coasts) (iii) localised height restrictions.

d. nature conservation
Considerations will include any adverse effect on a site of international importance for nature conservation (Special Protection Areas, Special Areas of Conservation and RAMSAR Sites), a site with a nationally recognised designation (Sites of Special Scientific Interest, National Nature Reserves), Nature Improvement Areas and ecological networks and protected species.

e. conserving the historic environment
Considerations will include the potential effects on the significance of heritage assets, whether designated or not, including any contribution made by their setting.

f. traffic and access
Considerations will include the suitability of the road network and the extent to which access would require reliance on local roads, the rail network and transport links to ports.

g. air emissions, including dust
Considerations will include the proximity of sensitive receptors, including ecological as well as human receptors, and the extent to which adverse emissions can be controlled through the use of appropriate and well-maintained and managed equipment and vehicles.

h. odours
Considerations will include the proximity of sensitive receptors and the extent to which adverse odours can be controlled through the use of appropriate and well-maintained and managed equipment.

i. vermin and birds
Considerations will include the proximity of sensitive receptors. Some waste management facilities, especially landfills which accept putrescible waste, can attract vermin and birds. The numbers, and movements of some species of birds, may be influenced by the distribution of landfill sites. Where birds congregate in large numbers, they may be a major nuisance to people living nearby. They can also provide a hazard to aircraft at locations close to aerodromes or low flying areas. As part of the aerodrome safeguarding procedure (ODPM Circular 1/2003[5]) local planning authorities are required to consult aerodrome operators on proposed developments likely to attract birds. Consultation arrangements apply within safeguarded areas (which should be shown on the policies map in the Local Plan).

The primary aim is to guard against new or increased hazards caused by development. The most important types of development in this respect include facilities intended for the handling, compaction, treatment or disposal of household or commercial wastes.

j. noise, light and vibration
Considerations will include the proximity of sensitive receptors. The operation of large waste management facilities in particular can produce noise affecting both the inside and outside of buildings, including noise and vibration from goods vehicle traffic movements to and from a site. Intermittent and sustained operating noise may be a problem if not properly managed particularly if night-time working is involved. Potential light pollution aspects will also need to be considered.

k. litter
Litter can be a concern at some waste management facilities.

l. potential land use conflict
Likely proposed development in the vicinity of the location under consideration should be taken into account in considering site suitability and the envisaged waste management facility.

[5] Safeguarding aerodromes, technical sites and military explosives storage areas and on the application of the Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002

Environment Agency internal briefing note on UKWIN article July 2018

What is this briefing note about?

This briefing has put been put together by the Environment Agency in response to a report published by UK Without Incineration (UKWIN) on 17 July 2018 entitled "Waste Incineration and Particulate Pollution: A failure of governance"[i]. This briefing is primarily intended for internal Environment Agency use, but can be shared externally if required.

This briefing addresses the various points made in the UKWIN report and provides further information about the challenges around monitoring particulates at the very low concentrations found in the exhaust gases of modern municipal solid waste (MSW) incinerators (also known as energy-from-waste or EfW plants). It also provides data on the amount of particulate matter and oxides of nitrogen (NO_x) emitted from EfW plants compared to other common sources, and how we assess the impact of an EfW plant's emissions when deciding whether to grant a permit. A list of key messages can be found at the end of the briefing.

Some explanation about different sizes of particulate matter and how it is monitored

Particulate matter (PM), also known simply as "dust", is emitted from many different sources including cars, household wood burning and agriculture. PM is classified according to size, with the smaller particles thought to be more likely to have an impact on health. PM_{10}, for example, is all particles with a diameter of 10 micrometres *or less*, and therefore includes smaller particles such as $PM_{2.5}$ and PM_1 etc.

There is currently no validated, commercially available equipment for continuously monitoring PM_{10} and $PM_{2.5}$ emissions from EfW plants. Instead, plants are required to continuously measure *total* particulate matter (TPM). TPM includes particulates of *all* sizes including PM_{10}, $PM_{2.5}$, PM_1 etc as well as ultrafine particles (i.e. particles with a diameter of less than 0.1 micrometres).

Equipment is available to monitor PM_{10} and $PM_{2.5}$ *discontinuously* i.e. by using temporary monitoring equipment to sample the exhaust gas and then working out the results in a laboratory. Indeed, all new EfW plants are required to carry out this test when they first start operating. However, the concentrations of PM in the exhaust gases of modern EfW plants are so low that it is very difficult to get an accurate result from these tests, and will remain so until new monitoring methods and technology can be developed, validated and standardised for use.

In summary, specific emissions of PM_{10} and $PM_{2.5}$ from EfW plants can't be accurately measured using current technology. However, this isn't really a problem as all EfW plants continuously measure their TPM emissions, which includes particulates of *all* sizes. If we then want to know the impact of PM_{10} from an EfW plant under the worst-case scenario, we can simply assume that *all* of the TPM measured is PM_{10}, and the same for $PM_{2.5}$ and so on.

How does the Environment Agency assess impacts of EfW plants on the environment and human health?

We use a number of methods, but one of the key assessments for PM_{10}, $PM_{2.5}$ and NO_x is to compare the modelled emissions from the EfW plant with the European air quality standards for these pollutants (also taking into account the existing levels of pollution around the plant). To do that, we assume that the plant operates at its permitted limits 100% of the time (when in reality it won't, especially for TPM where plants often operate at around 10% of their limits). For PM_{10} and $PM_{2.5}$ we also assume that TPM = PM_{10} = $PM_{2.5}$ as explained above. Making these assumptions means that we assess the worst-case scenario, which is what we then base our permitting decisions on, and we also consult Public Health England (PHE) on every application that we receive.

Do EfW plants make a big contribution to particulate matter and NO_x emissions in the UK?

The table overleaf shows estimates of the amount of pollution that was released by different example sources listed in the Government's National Atmospheric Emissions Inventory[ii] (NAEI, which is referenced in the UKWIN report). These include figures for domestic wood burning (i.e. wood fires and stoves in people's homes) and emissions from road transport including cars, buses and lorries.

The data shows that emissions from EfW plants make up just 0.03% / 0.05% of total UK PM_{10} / $PM_{2.5}$ emissions. This is compared to 5.35% / 4.96% from traffic and 22.4% / 34.3% from domestic wood burning. For NO_x the figures are 1.12% from EfW plants compared to 33.5% from traffic and 0.57% from domestic wood burning.

2016 NAEI category	PM_{10}	$PM_{2.5}$	NO_x
MSW incineration	0.057 kt = **0.03%**	0.057 kt = **0.05%**	9.97 kt = **1.12%**
Domestic wood burning	38 kt = **22.4%**	37 kt = **34.3%**	5.1 kt = **0.57%**
Cars, buses, lorries	9.1 kt = **5.35%**	5.36 kt = **4.96%**	298.9 kt = **33.5%**
Total UK emissions	**170 kt**	**108 kt**	**893 kt**

(Source: http://naei.beis.gov.uk; kt = kilotonne i.e. 1000 tonnes)

It is also important to understand that the overall impact of an EfW plant's emissions on human health for a given amount of PM or NO_x released will be lower than if that same amount was emitted by a car or a domestic wood fire. This is because EfW plants have tall stacks (chimneys) which help to disperse their emissions, whereas a car exhaust pipe or a chimney on a house releases its emissions much closer to ground level.

Are emissions from EfW plants causing significant health effects in England?

We consult Public Health England (PHE) on every EfW plant application that we receive and we will not issue a permit if its emissions will cause significant pollution or harm to human health. PHE has also published the following position statement on the health impact of waste incineration: "*Modern, well managed incinerators make only a small contribution to local concentrations of air pollutants. It is possible that such small additions could have an impact on health but such effects, if they exist, are likely to be very small and not detectable*." The study of all 22 British EfW plants in operation 2003–10[iii] indicates very low concentrations of incinerator-related PM_{10} within 10 km of the plants at postcode level.

What is the Environment Agency's response to the points covered in the UKWIN report?

The following table provides a summary of our responses to the main points covered in the UKWIN report and should be read together with the information above.

Claim made or policy called for	Environment Agency response
The public have been "kept in the dark about PM_{10} and $PM_{2.5}$ emissions" as there is no equipment available for their continuous monitoring.	The fact that PM_{10} and $PM_{2.5}$ emissions cannot be continuously monitored does not mean that they cannot be estimated and the estimates made publically available. Indeed, this is what the NAEI does, with data available to the public going back to 1970. The 2016 data for example shows that EfW plants emitted an estimated 57 tonnes of both PM_{10} and $PM_{2.5}$, representing 0.03% and 0.05% of total UK emissions respectively. In comparison, the NAEI estimates that domestic wood burning accounted for 22% and 34% of total UK PM_{10} and $PM_{2.5}$ emissions respectively.
There is a "TPM fiddle" which prevents the public from being told about TPM emissions from incinerators.	All EfW plants must continuously monitor and report TPM emissions on a quarterly basis. The results of this monitoring are placed on the public register and show that many EfW plants operate at around 10% of their emission limit for TPM.
There is a "no equipment fiddle" which allows operators to say they can't measure PM_{10} and $PM_{2.5}$ when in actual fact they can measure them "by proxy".	The method used by the NAEI is not a form of *measurement* but rather it is a conservative *estimate* of the PM_{10} and $PM_{2.5}$ emissions which relies on the simple assumption that TPM = PM_{10} = $PM_{2.5}$.
Incinerator operators have been ignoring Environment Agency guidance on reporting PM_{10} and $PM_{2.5}$; PM_{10} and $PM_{2.5}$ reporting should be made mandatory and guidance should be strengthened and enforced.	As explained above, EfW operators cannot specifically measure their PM_{10} and $PM_{2.5}$ emissions in an accurate way. As the UKWIN report highlights, our Pollution Inventory (PI) guidance suggests that emission factors can be used. However, these emission factors are from 2000 (when not all EfW plants were required to be fitted with bag filters) which may help explain the difference between the UKWIN figures (226.1 tonnes for England in 2017) and the NAEI data (57 tonnes for the whole of the UK in 2016). We are in the process of updating our guidance to make it clear that PM_{10} and $PM_{2.5}$ emissions must be reported on the PI, as well as providing an updated method to enable operators to estimate them.
A limit value should be placed on PM_1 emissions from incinerators if possible.	A limit on PM_1 emissions is arguably not necessary as PM_1 will be included in TPM emissions, and in any case, PM_1 emissions will be taken into account when assessing an EfW plant's emissions against the air quality standards for PM_{10} and $PM_{2.5}$ (which will both include PM1 and ultrafines as explained above).
An incineration tax should be introduced under the "polluter pays" principle and there should be a moratorium on new incinerators until this and the other policies mentioned are in place.	Whether waste incineration should be taxed or a moratorium put in place are decisions for the Government and not the Environment Agency. We will continue to consider permit applications for new EfW plants in the same way i.e. by assessing the impacts of particulates and other pollutants on the environment and human health.

Summary/key messages for a non-technical audience

- The UKWIN article is about municipal solid waste (MSW) incinerators, also known as energy-from-waste or EfW plants.
- The article talks mainly about emissions of particulate matter (PM), which is also known simply as "dust". PM is emitted from many different sources including cars, household wood burning and agriculture.
- PM can be classed by size e.g. PM_{10} refers to all particles with a diameter of 10 micrometres (µm) **and smaller**, and $PM_{2.5}$ means those with diameter of 2.5 µm **and smaller**. This means that PM_1 and "ultrafine particles" (with a diameter of less than 0.1 µm) are included in PM_{10} and $PM_{2.5}$ measurements.
- Emissions of PM_{10} and $PM_{2.5}$ from modern EfW plants are so low that they cannot be accurately specifically measured using currently available technology. However, this isn't a problem as all EfW plants continuously monitor emissions of total PM (TPM) which includes particles of **all** sizes including PM_{10}, $PM_{2.5}$, PM_1 and ultrafine particles.
- EfW plant operators report their continuous monitoring results (including TPM) to the Environment Agency (EA) every 3 months and these are all placed on the public register[iv].
- EfW plants also submit annual reports of their emissions to the EA's Pollution Inventory (PI). The UKWIN article is critical of the fact that EfW plants do not always provide estimates of their PM_{10} and $PM_{2.5}$ emissions to the PI. Because of this, the EA is going to update its guidance to make it clear that estimates for these pollutants need to be submitted in the future.
- When the EA assesses applications for new EfW permits, they compare the maximum emissions from the plant against European air quality standards. For PM_{10} and $PM_{2.5}$ this means making a worst-case assumption that all of the EfW plant's emissions will be either PM_{10} or $PM_{2.5}$. The EA will not issue a permit for an EfW plant if its emissions will cause significant pollution or harm to human health, and it consults Public Health England (PHE) on every application it receives.
- PHE's position is that well run and regulated modern Municipal Waste Incinerators are not a significant risk to public health. This view is based on detailed assessments of the effects of air pollutants on health and on the fact that modern and well managed Municipal Waste Incinerators make only a very small contribution to local concentrations of air pollutants.
- For more information on PHE's position, see: https://www.gov.uk/government/publications/municipal-waste-incinerator-emissions-to-air-impact-on-health
- EfW plants are an extremely small source of PM in the UK, giving rise to just 0.03% / 0.05% of total UK PM_{10} / $PM_{2.5}$ emissions in 2016 according to government estimates. This compares to 5.35% / 4.96% from traffic and 22.4% / 34.3% from wood fires and stoves in people's houses.
- The other pollutant mentioned in the UKWIN article is oxides of nitrogen (NO_x). EfW plants are also a relatively small source of NO_x in the UK, giving rise to 1.12% of emissions in 2016 compared to 33.5% from traffic and 0.57% from domestic wood burning according to government estimates.

[i] http://ukwin.org.uk/btb/Particulate_Pollution_July_2018.pdf
[ii] http://naei.beis.gov.uk/data/
[iii] https://pubs.acs.org/doi/pdf/10.1021/acs.est.6b06478
[iv] https://environment.data.gov.uk/public-register/view/index

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IN THE MATTER OF

THE TOWN AND COUNTRY PLANNING ACT 1990

AND IN THE MATTER OF

NORTHACRE ENERGY FROM WASTE FACILITY,

WESTBURY, WILTSHIRE.

OPINION

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1. I am asked to advise Wiltshire Council ['the Council'] in respect of an application for planning permission for a 243,000 tpa Energy from Waste ['EfW'] facility ['the application'] at Stephenson Road, Northacre Industrial Estate, Westbury, BA13 4WD ['the site']. The site benefits from permission for a 160,000 tpa Advanced Thermal Treatment ['ATT'] EfW facility (18/09473/WCM) which was granted in 2019 and, I am instructed, remains extant ['the extant permission']. The application seeks a new permission described as 'Amended energy from waste facility to [the extant permission]' to use a moving grate combustion technology rather than the approved ATT. The principal differences between the two schemes are summarised in the Planning Statement at paragraph 1.3.1. Pursuant to the locational policies WCS1 and WCS2 of the Wiltshire Core Strategy ['WCS'], the site is also part of land allocated in the Waste Site Allocations Local Plan 2013 for 'strategic scale' waste treatment, a term defined as including EfW. The fuel for the proposed EfW is residual waste. The output is electricity to the grid and steam/hot water. It is accompanied by an 'R1' calculation which qualifies it as a 'recovery facility' for the purpose of the EU Waste Framework. I have seen emails from Cllr Thorn and Cllr Matthew and have been provided with comments from the planning officer in response. In the light of these, I am asked to advise on ten specific matters, which I set out and then answer below.

2. The following observations, however, set the context for those answers.

3. First, the scheme is for a strategic scale EfW. As such, its location accords with the locational polices in the adopted development plan (the WCS and the Allocations Local Plan). The type of technology (ATT or moving grate) is immaterial to whether it is an EfW. The principle of this type of development at this scale, therefore, accords with the development plan and benefits from the statutory presumption in s.38(6) of the Planning and Compulsory Purchase Act 2004.

4. Secondly, it is proposed to utilise 'residual waste'. That is, it treats a waste stream which has already undergone sorting and treatment at earlier stages and, being 'residual', is now destined to disposal to landfill or export (from the county, or the country) for landfill or recovery elsewhere.

5. Thirdly, it does not appear disputed that Wiltshire generates circa 273,000 tpa of residual (ie after recycling) waste that requires management with a 'capacity gap' of 163,000 tpa and an 'inner market' capacity gap in the geographic area likely to favour the proposed EfW of 293,000 tpa (including c.52,000 tpa from the adjacent MBT)[1]. Thus, although, a proposal for energy recovery in accordance with the development plan does not need to show need[2], there is an accepted need for this capacity.

6. Fourthly, the output of the EfW is electricity to grid, with the potential for CHP given the steam and hot water generated. Its projected net power generation is 25.6 Megawatts. While there is a dispute on the carbon calculation between the Applicant's advisers, Fichtner, and the Council's, Exeter University's Centre for Energy and the Environment, I do not understand it to be in dispute that, as a matter of principle, the EfW is a 'low carbon' energy source for the purposes of the Glossary of the NPPF and, hence, paragraphs 151 and 154 of the NPPF.

7. Fifthly, a variable part of the residual waste feed stock will be biogenic in origin, so would qualify as 'renewable' energy generation.

[1] See Planning Statement at 3.2.8-3.2.16 and draft Committee Report at 9.1.3; the MBT-derived RDF appears currently to be going to recovery in Germany.
[2] NPPF 154 and NPPW

8. Sixthly, as a result of the R1 calculation, it is accepted that the proposal qualifies as a 'recovery facility' which would move the (residual) waste up the waste management hierarchy from disposal. As such, it accords with WCS policy WCS5 and fulfils the two roles identified in the NPPW for EfWs – namely to generate low carbon power and to treat waste so as to divert it from landfill.

9. I now turn to the specific questions posed.

   i) What weight should be given to evolving climate change policy (which is less supportive of carbon-generating EfW developments) relative to both national and local planning policies (which are more supportive of carbon generating EfW developments, at least at this time)?

10. I must start by observing the trite position that weight is for the decision-maker. That said, it will be expected that adopted policy is likely to be worthy of greater weight than emerging policy. This is particularly so where different strands of public policy are concerned. It is apparent, I hope, that how the aims and aspirations of one policy arena are transposed into effect in another arena of policy is, itself, a matter of policy. Thus, it cannot be seen, precisely, how developing climate change policy will manifest in planning policy until such time as (a) it has itself been adopted and (b) it has been incorporated into planning policy, first at a national level and then at a development plan level.

11. In these circumstances, it is quite unimpeachable for the officer to ascribe greater weight to what the adopted national and local planning policies actually say on EfWs, waste treatment and low carbon energy than what might be deduced or gleaned from emerging advice to/thoughts of Government on climate change.

   ii) How existing policy fits with the stated aim to deal with the climate change emergency when these issues have not as yet been included in a Development Plan document as the current Development Plan was adopted in 2015?

12. Existing policy (as relevant for present purposes) fits with climate change issues by virtue of the fact that energy recovery from residual waste is part of the suite of initiatives encouraged in order to 'de-carbonise' energy compared to the burning of

fossil fuels and to treat residual waste that would (by definition) be going for disposal to landfill.

13. While a proportion of the feedstock will itself be fossil-carbon derived, it is 'waste' fossil carbon, that needs to be managed, rather than 'virgin' fossil carbon, mined or extracted for the purpose of energy-generation. As such, it already exists in the 'above ground' carbon equation and, rather than being disposed of, it can beneficially be used to displace energy derived from conventional fossil fuels.

14. From my experience in the energy and waste sectors, I am aware of certain objectors to EfWs arguing, on a carbon basis, that it would be better to 'sequester' the fossil-derived carbon in residual waste by burying it – ie disposing of it to landfill – rather than releasing it to the atmosphere as CO2. Whatever the merits of that argument (with which I do not here engage), that is not current Government policy. Rather, for climate change reasons and waste management reasons, Government policy is to move to zero landfill, and EfW treatment of residual waste to recover energy from that waste is part of the armoury of measures which are to be deployed. EfW is, for planning policy purposes, a 'low carbon' energy source, even if it is not a 'no carbon' energy source and, so, is encouraged as part of the moves to tackle the 'climate change emergency'.

15. The current development plan reflects that position by providing opportunities for EfWs, as at the application site.

iii) Assuming the Council can have regard to the NPS for Renewable Energy Recovery as a material consideration in local decision making, does it, read in the context of the Energy White Paper (Dec 2020), assist in confirming that policy for waste (in the NPPF and relevant Wiltshire DPDs) is not 'trumped' by evolving climate change policy?

16. The December 2020 Energy White Paper confirms in terms that while the review of NPS policies is being undertaken, 'the current suite of NPS remain relevant government policy and have effect for the purpose of the Planning Act 2008.' While NPS for Renewable Energy Recovery (EN-3) applies directly to development consents for installations generating more than 50MW, it is widely used to indicate Government

policy in respect of smaller schemes for renewable energy, along side the NPPF and the NPPW.

17. Until the NPS has been replaced, therefore, and the NPPF or NPPW replaced or amended to reflect an altered national stance, planning policies remain applicable as currently drafted. Within these EfW has a positive role to play in promoting the low carbon economy and in sustainable waste management.

iv) (a) In the event of planning permission being given for the Northacre planning application, should Wiltshire Council impose a planning condition requiring a scheme for [Carbon Capture and Storage] or [be Carbon Capture Ready] to be submitted and implemented (for CCS immediately, or for CCR when economically feasible, or is this a matter which can reasonably be left to other regulatory regimes (such as Environmental Permitting)? And could the Council reasonably refuse the application on the grounds that it does not make any provision for CCS and would therefore result in an unacceptable rise in CO2 emissions? – this is going back to the first question, what weight to give to climate change policy?

18. I do not consider that such a condition could be imposed. It does not appear to be in dispute that CCS is not yet economically or technically feasible in respect of this scheme[3], and I have not seen evidence to indicate whether or how that might change in a way that could be captured by a planning condition that meets the relevant tests.

19. It follows that the scheme could not, in my view, be refused on the grounds that it does not include CCS or CCR, as, in this case, it appears not to be feasible.

v) The role of planning when dealing with other regulatory regimes when thresholds within those other regulatory regimes may not capture all known areas of concern in an evolving area (air quality)?

20. It is best to deal with this theoretical question in the practical context before me. If, here, the 'evolving area (air quality)' is an allusion to public concern about health impacts of air pollution (and in particular the effects of particulate matters), it is for the planning system to defer to the Government's approach that such matters are safeguarded by Public Health England advising the conduct of the permitting regime.

[3] As stated in the application's ccompanying Carbon Assessment.

Actual health impacts are, therefore, something which the local planning authority may legitimately consider are adequately safeguarded, as is advised in para. 183 of the NPPF.

21. Adverse effect in planning terms of genuine health concerns among the local population (albeit not justified on current evidence) *may* be taken into account, if evidenced. The invariable practice of Inspectors and the Secretary of State, however, is to accord it very little or negligible weight in the planning balance, for the very reason that the validity of those concerns are currently unproven; better dissemination of the safeguards built into the public health regime should allay all but irrationally held belief; and planning permission should not be withheld on the basis of irrational belief, even where genuine.

vi) What is the fallback position when there is an extant scheme which may not be viable?

22. For there to be a 'fallback' in terms of law, there needs to be an extant permission which is capable lawfully of being implemented and completed. I understand that it is not disputed that the extant permission constitutes a fallback in those terms.

23. However, when it comes to giving *weight* to that fallback it is necessary to look at the likelihood of that legal position being put into effect in practice. The greater the likelihood, the greater is the weight that can be given; the lesser the likelihood, the lesser the weight.

24. I consider the matter further under the next question.

vii) The Appellant has styled their application as an 'amended energy from waste facility' clearly putting some reliance on the fact that the Council has previously approved an ATT plant in the same location. However, the view of planning officers is that little weight can be given to this fall-back position in the planning balance as the applicant have themselves indicated that they consider the consented scheme to be unviable, and in addition, the carbon impacts are materially different due to the change in technology being used. Officers are therefore minded to advise members that in these circumstances, the fallback position carries little weight as (1) it is unlikely to be built due to viability issues and (2) utilises materially different technology. Does Counsel agree with this approach?

25. I understand that the planning officer's thinking at the moment is to give 'significant weight' to the fallback position. The question above seems to alter that approach. While weight is a matter for the decision-maker (the professional officer authoring the report in this case), I am not aware of a change of circumstances between the two conclusions. I am aware, of course, that the officer may not have reached a concluded view yet.

26. Certainly, passages in the ES (eg paragraphs 3.2.6-3.2.8 in Vol. 1) talk quite negatively in terms of viability and likelihood of a deliverable ATT scheme. The Planning Statement para. 1.2.4, is more equivocal, expressing a commercial and operational preference for the tried and tested moving grate system. The question of viability and, hence, likelihood of delivery and, hence, weight to the fallback is, therefore, an open one for the officer to reach a conclusion. Confirmation could be sought from the Applicant as to whether it would develop the extant ATT if the current application were refused permission (locally and/or at appeal).

27. As to the difference in technologies, policy is 'technology blind' when it comes to types of EfW. I can see that relative differences in carbon emissions could be a potential consideration in distinguishing between the two schemes, but so would the different tonnage capacities and flexibility in treating waste streams and hence diverting residual waste from landfill and moving its management up the waste hierarchy. The current application remains a 'low carbon' energy proposal for the purposes of the NPPF and accords with the development plan locational policies. It is not a legitimate planning objection to a policy-compliant scheme that another policy-compliant scheme is 'lower' carbon.

viii) Comment on the Planning Officer's draft responses to Councillor Matthew's three questions outlined in the Instructions.

28. Through email correspondence dated 13th July2020-23rd November 2020, Cllr Brian Matthew has raised three questions (numbered by him questions 1, 2 and 3, but lettered in my Instructions A, B, and C) and set out the contextual background to his concerns. I have been helpfully provided with the case officer's comments in respect of those questions. For the reasons below, I consider that the officer's response is appropriate.

29. Question 1 (A) concerns health impact (in particular, 'ultrafine' particles) and the operation of para. 183 of the NPPF. It is the role of the Environment Agency operating the permitting regime to regulate the stack emissions in respect of their impacts on public health, and it is the role of Public Health England to oversee that regime's effectiveness in those terms. Thus, it is within PHE's jurisdiction in protecting public health both *what* emissions are to be regulated and what *limits* if any are to be imposed. These being are matters on which PHE advises the permitting regime, as necessary (or not) in the interests of public health, based on the best epidemiological evidence available to it, it is not the role of the planning regime to seek to replicate or depart from that position.

30. Both the permitting regime by the EA and the overview of public health matters by PHE are settled regulatory regimes upon which the Council can rely in the discharge of *its* functions as local planning authority. There may be public concerns about the health effects of ultrafine particles, but the Council is entitled to rely on PHE's consultation response and, in doing so no separate 'duty of care' on the part of the LPA, (as questioned by the Councillor in Qu. 3(C) below), is engaged.

31. Question 2 (B) concerns the assessment of alternatives under the EIA Regulations. The officer is correct that the obligation is to report the alternatives assessed, rather than to assess any specific alternatives. As the application is for energy recovery from and treatment of residual waste, it is perfectly reasonable to have considered alternatives that would achieve that purpose.

32. Question 3 (C) concerns a duty of care on behalf of the Council to protect the public in its decision-making. This appears to be a return to Question 1/A. The officer's response is correct. The local planning authority is entitled, for the purposes of public health, to rely on the permitting regime, and as a matter of policy is directed by Government to assume that that regime operates effectively[4].

xi) *Provide a considered view on the issues raised by Councillor Thorn (Leader of the Opposition) in his email of 5 January 2021 to help inform the Council's response to the queries he has raised and for the report to the Strategic Planning Committee*.

[4] NPPF para. 183

33. Cllr Ian Thorn set out five questions in his email of 5th January 2021. The email, and questions, specifically reference the correspondence of Cllr Matthew under cover of his email of 23rd November 2020 (see my Instructions: Question (x), above).

34. Question 1 concerns ultrafine particles and is closely related to Cllr Matthew's Question 1. The answer is the same: what constituent of the stack emissions is monitored and what is regulated and to what standards, if regulated, it is limited are all matters for the permitting regime, operated by the EA, governed by PHE to protect public health. The Council is entitled as a matter of law, and expected as a matter of policy to assume that that regime operates effectively.

35. Question 2 concerns air quality monitoring stations. I have no information on these. If they are future monitoring stations, required under the environmental permit, they will be regulated by the EA. If they are existing monitoring stations, for example if the Council has such operated by the EHO for monitoring AQMAs, their operation would remain as now.

36. Question 3 concerns 'ground plume modelling'. This is a matter relevant to the environmental permit. Its consideration may have affected the proposed stack height, which may then have visual or landscape implications for the planning authority, but its public health impact is for the permitting regime.

37. Question 4 elides the issue of waste composition and treatment under the Waste Hierarchy Regulations and the issue of 'alternatives' under the Planning EIA Regulations. The former is relevant to the creation of the 'RDF' used by the proposed EfW; that is not for the local planning authority to regulate, it needs only impose a suitable condition that the feedstock conforms to the definition of RDF. The latter is essentially the same as Cllr Matthew's Question 2; as is the answer.

38. Question 5 concerns the Council's duty of care and is essentially the same as Cllr Matthew's Question 3; as is the answer.

ix) *Advise generally*.

39. I have no specific further advice to give beyond the above, and to observe that I consider the current approach of the planning officer to be unimpeachable in its approach, given that this is an allocated site for the purpose of the use proposed, in the context of a continuing need and a lawful fallback.

40. I have not entered into the detail of the rival carbon calculations (and their various input factors) but I do offer a word of caution about adopting the (Exeter) position that dismisses the comparator to landfill in its entirety. Other than export (to landfill out of the county or to recovery out of the country), landfill does appear to be the destination of this residual waste. While landfill CO2 generation assumptions can be argued about, the residual waste arisings do not simply 'evaporate' if they are not managed here: there is a continuing tonnage per annum that will need to be managed beyond current capacity.

41. That said, I note that the officer has concluded that there is no need to choose between the two rival carbon calculations: EfW is a 'low carbon' energy source and a waste management process encouraged by policy and for which there is a continuing need. I agree with that conclusion.

42. I am not asked to and make no comment on any other planning merits of the application.

CHRISTOPHER BOYLE QC

5th February 2021

Landmark Chambers,

180 Fleet Street,

London,

EC4A 2HG.

Wiltshire Council

20/06775/WCM

Northacre Energy from Waste Facility, Stephenson Road, Northacre Trading Estate,

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REPORT TO THE STRATEGIC PLANNING COMMITTEE

Date of Meeting	22 June 2021
Application Number	PL/2021/04232
Site Address	Fairford Road, Marston Meysey, SN6 6LL
Proposal	The extraction of minerals, provision of associated infrastructure including access and processing facilities, associated ancillary buildings, structures and operations, with site restoration using imported materials to agriculture and enhanced ecological interest and biodiversity.
Applicant	Hills Quarry Products Ltd
Town/Parish Council	Latton
Electoral Division	Cricklade and Latton – Councillor Bob Jones MBE
Grid Ref	412908 196528
Type of application	County Matter
Case Officer	Jason Day

Reason for the application being considered by Committee

1. The delegation to another local authority of the function to make strategic planning decisions is not covered in the scheme of delegation to the Director for Economic Development and Planning as detailed in Part 3 Section D3 of the Constitution.

Purpose of Report

2. To consider a proposal for Wiltshire Council to delegate the determination of a planning application for mineral extraction which crosses the administrative boundary to Gloucestershire County Council.

Report Summary

3. Duplicate planning applications have been submitted to Wiltshire Council and Gloucestershire County Council for development of a new quarry site straddling the county boundary, with only a very small proportion of the site being within Wiltshire.

4. As the proposed extraction area lies in Gloucestershire, with only the point at which the new access is created onto the public highway lying in Wiltshire, it is recommended that Wiltshire Council delegates its function as the determining mineral planning authority for this application to Gloucestershire County Council under Section 101(1) of the Local Government Act 1972.

Proposals and Description of the Site

5. Hills Quarry Products Ltd are proposing to develop a new quarry at Down Ampney. The proposed mineral extraction area, plant site, offices and haul road lie wholly within Gloucestershire, and only the point of access onto the public highway is in Wiltshire. In accordance with planning requirements, duplicate planning applications have been submitted to Wiltshire Council and Gloucestershire County Council.

6. Plans to show the application area and administrative boundary are attached at **Appendix 1**.

7. The site, referred to as 'Airfield Quarry', is being developed in partnership with the landowner, Farmcare Trading Ltd. The application site comprises approximately 236 hectares of agricultural land and mixed woodland plantations, located approximately 1 km east of the villages of Down Ampney and Latton, 0.8 km west of the village of Marston Meysey and 1.5 km northeast of the town of Cricklade. The remnants of a Second World War airfield lie at the heart of the site, comprising parts of the runways and the perimeter road. The proposed access crosses the watercourse on the north side of the C124/Eastern Spine Road, between Gally Leaze Bridge and Sheepen Bridge, which forms the boundary between the two counties. The relative areas are 236 ha in Gloucestershire and 0.2 ha in Wiltshire.

8. The quarry would supply local and regional construction material needs with an estimated 6.5 million tonnes of sand and gravel over 13 years, at an average output of 510,000 tonnes per annum. The quarry would operate a mineral washing and screening plant, a bagging plant to package materials for retailers and a batching plant to produce ready-mixed concrete. The land would be progressively restored to a mix of farmland with areas of increased ecological interest and biodiversity. The restoration of the site will require an estimated 4.9 million tonnes of inert materials. Imports would average 200,000 tonnes per annum. The restoration operation is estimated to take 24 years. The active life of the quarry, from initial site set up to final restoration works, is estimated to be 26.5 years.

9. The proposed quarry is located within 'Allocation 06 – Land southeast of Down Ampney' of the Minerals Local Plan for Gloucestershire (2018 – 2032) adopted by Gloucestershire County Council on 20 March 2020. Policy MA01 of the Local Plan states that the principle of mineral working for aggregates has been accepted within this location, subject to satisfying the detailed development requirements set out in the Plan.

Responsibility for Determination of the Applications

10. National Planning Practice Guidance confirms that if an application site is on land that falls within the boundary of more than one local planning authority, then identical applications must be submitted to each local planning authority, identifying on the plans which part of the site is relevant to each. However, in accordance with the nationally set planning fee regulations, the full application fee has been paid to Gloucestershire County Council whose area contains the largest part of the application site.

11. While it is open to Wiltshire Council to determine the planning application that it has received for the proposed new quarry, such an approach would be artificial as the area of land within its administrative area is just a few square metres, comprising only of the junction bellmouth arrangement where the access road would meet the public highway. All the operational aspects of the 236ha application area, including the access road itself lie within Gloucestershire. Separate consideration and determination of the application by the two Councils could also lead to an uncoordinated approach with differing decisions.

12. Section 101(5) of the Local Government Act 1972 authorises two or more Local Planning Authorities to discharge any of their functions jointly. This arrangement can be achieved through the establishment of a joint committee. In practice, this type of arrangement is typically established if it is likely that there will be several cross-boundary applications and so is not considered appropriate in this case.

13. Alternatively, pursuant to Section 101(1) of the Local Government Act 1972 a local authority may arrange for the discharge of any of its functions by any other local authority. In this way it is possible for one Local Planning Authority to delegate its development control functions to another in respect of a specific cross-boundary planning application or site.

14 Accordingly, Wiltshire Council could delegate its decision-making powers to Gloucestershire County Council in respect of the determination of this cross-boundary planning application. Gloucestershire County Council would lead the determination of the planning application and Wiltshire Council would act as a consultee. Gloucestershire County Council would be responsible for all the administrative tasks associated with the application, such as consultations and publicity.

15. Gloucestershire County Council has confirmed that it is content with such an approach, and it is considered that Section 101(1) will provide the most appropriate mechanism to enable Wiltshire Council to delegate its authority. The Applicant has also requested that Wiltshire delegate its decision making to Gloucestershire in this instance given the very small part of the site lying in Wiltshire.

Issues

16. The part of the development that lies within the administrative area of Wiltshire is a very small proportion of the application site overall, comprising only the site access junction arrangement and visibility splays;

17. Officers consider that the most appropriate process for determining the planning application is for Wiltshire Council to delegate determination to Gloucestershire County Council, for the following reasons:

- The development proposal is more coherent and therefore can be more properly considered if it is not split into two separate applications but is dealt with in its entirety by a single planning authority. This would also, should permission be granted, assist with monitoring compliance with planning conditions and obligations which apply to the site;

- The Environmental Impact Assessment that has been carried out considers the proposed new quarry, with submission of a single Environmental Statement. This includes a transport assessment that sets out the routeing of HGV traffic and considers the changes in traffic on the local highway network;

- Gloucestershire County Council is better placed to deal with the entirety of the development, having allocated the site for future mineral working in its Minerals Local Plan adopted in March 2020; and

- The interests of Wiltshire Council can be satisfactorily addressed in its role as a consultee in the planning process. The Council as the Local Highway Authority has previously engaged in pre-application discussions with the Applicant and their counterparts at Gloucestershire County Council.

18. A further consideration is that Wiltshire Council has not received a planning fee for the application and so would assume all of the costs associated with the processing of the application submitted to it, including publicity (neighbour notification letters, site and press notices), administration and officers' time.

19. If the function to determine the application is delegated to Gloucestershire County Council it would be appropriate for the Mineral Planning Authority and the Local Highway Authority within Wiltshire be consulted separately on the application, as well as the Division Member for Cricklade and Latton.

20. To aid efficient and consistent decision-making, it would be prudent to include any future associated applications for the discharge of conditions or approval of non-material amendments within the scope of the arrangement.

Conclusion

21. The part of the application area that lies within Wiltshire is very small (0.2 ha). All the operational aspects of the 236ha application area lie within Gloucestershire, and which is allocated for mineral working in the adopted Minerals Local Plan for Gloucestershire. Whilst planning process requires duplicate applications to be submitted to each authority, legislation makes it possible for one local authority to delegate its development control functions to another. The interests of Wiltshire Council can be satisfactorily addressed in its role as a consultee in the planning process. It is therefore considered that in this case, the most appropriate process for determining the planning application is for Wiltshire Council to delegate determination to Gloucestershire County Council.

Recommendation

22. It is recommended that the following functions be discharged to Gloucestershire County Council in accordance with Section 101(1) of the Local Government Act 1972:

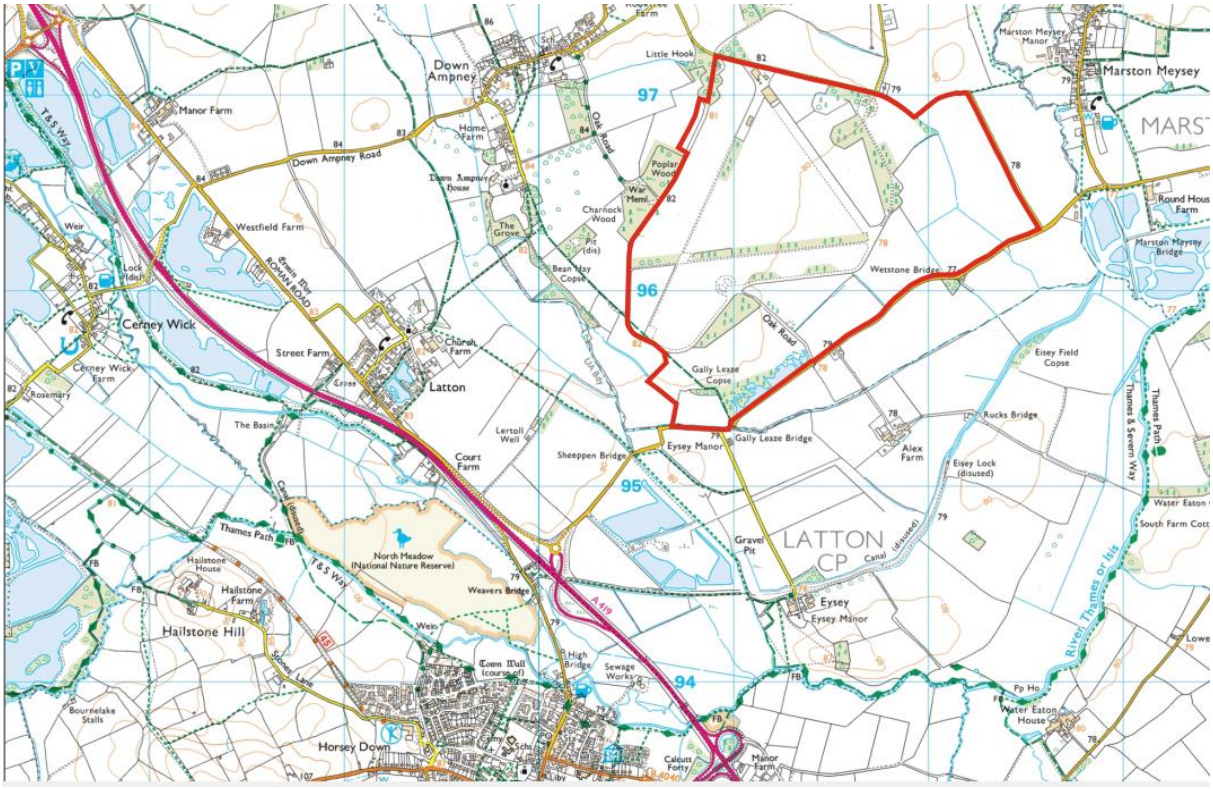
a) determination of planning application ref: PL/2021/04232; and

b) determination of any subsequent applications for the discharge of conditions or non-material amendments pursuant to that application;

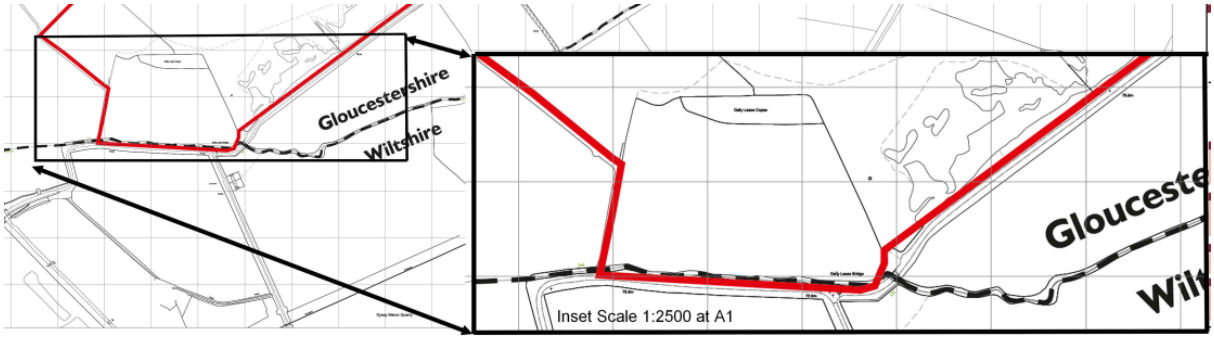
subject to Wiltshire Council in its roles as mineral planning authority and highway authority, together with the local Divisional Member and parish council, being consulted for their views regarding the proposed development.

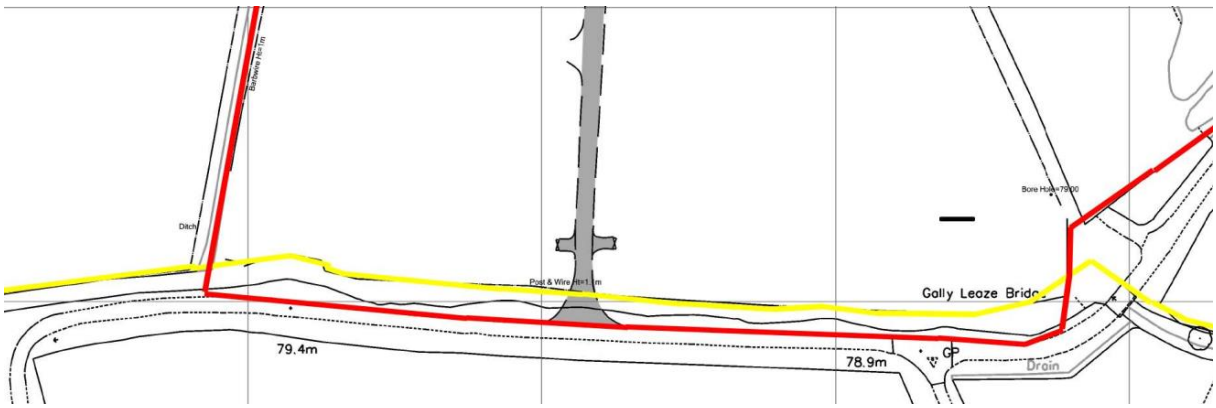
APPENDIX 1

Location Plan:



Land within Wiltshire:





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Wiltshire Council

Strategic Planning Committee

22 June 2021

REPORT TO STRATEGIC PLANNING COMMITTEE

UPDATE ON PLANNING APPLICATION 15/12351/OUT

LAND AT RAWLINGS FARM, COCKLEBURY LANE, CHIPPENHAM

OUTLINE APPLICATION FOR UPTO 650 DWELLINGS; EMPLOYMENT SPACE; PRIMARY SCHOOL; PUBLIC OPEN SPACE & ASSOCIATED DEVELOPMENT

BACKGROUND

1. Members may recall that at the Strategic Planning Committee meeting in September 2020, this committee resolved to defer and delegate to the Head of Development Management to grant outline planning permission for this development subject to the prior completion of a Section 106 agreement within six months of the date of the committee resolution. The resolution went on to state that in the event that the applicant declines to enter the agreement and/or it becomes clear that they will not do so, then to refuse planning permission on the grounds that the proposal fails to provide and secure the necessary and required services and infrastructure.

2. Unfortunately, it has not proved possible to complete the agreement within the six-month period from the date of the resolution. This has not been due to the applicant declining to enter the agreement but reflects the complexity of the agreement and the need to secure the signatures of various landowners in addition to the applicant, including at least one party who lives abroad. These signatures are required to ensure that the agreement is binding on all the necessary parties. The Covid-19 lockdown and Government Roadmap has also impacted on delivery timescales. The Council has an agreement finalised and ready for engrossment, but it is understood that there are a few minor issues raised by some of the landowners that need to be dealt with. The agreement should be completed shortly.

3. There have been no changes to the material considerations regarding the merits of the planning application itself, which were debated and agreed at the September meeting. However, because of the expiry of the six-month period set out in the resolution, it is necessary for the committee to extend the period of time to allow for the completion of the Section 106 legal agreement.

RECOMMENDATION:

4. The committee extend the period allowed for the completion of the agreement until 31st October 2021.

Background Papers
Planning application 15/12351/OUT, including report to the Strategic Planning Committee meeting on 16 September 2020 and minutes of that meeting.

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