FLINTSHIRE COUNTY COUNCIL

REPORT TO: PLANNING AND DEVELOPMENT CONTROL

COMMITTEE

DATE: 17TH APRIL 2015

REPORT BY: CHIEF OFFICER (PLANNING & ENVIRONMENT) SUBJECT: **FULL APPLICATION FOR AN ENERGY RECOVERY**

FACILITY AT WEIGHBRIDGE ROAD, DEESIDE

INDUSTRIAL PARK

APPLICATION

NUMBER:

052626

APPLICANT: WHEELABRATOR

WEIGHBRIDGE ROAD, SITE:

DEESIDE INDUSTRIAL PARK

APPLICATION

VALID DATE:

22/09/2014

LOCAL MEMBERS: COUNCILLOR BRIAN DUNN, CONNAH'S QUAY

WEPRE

YES

COUNCIL:

TOWN/COMMUNITY CONNAH'S QUAY TOWN COUNCIL

SCHEDULE 1 EIA DEVELOPMENT

REASON FOR COMMITTEE:

SITE VISIT:

1.00	SUMMARY / THE APPLICATION
1.01	Wheelabrator Technologies seek a temporary planning permission up to the 31st December 2050 for the construction and operation of an Energy Recovery Facility (ERF) for the treatment of residual waste for the 5 North Wales Authorities that have signed up to the North Wales Residual Waste Treatment Project (NWRWTP) and also residual commercial and industrial waste. The proposal comprises the following: • A 200,000 tonnes per annum (tpa) residual waste recovery facility that would recover residual Municipal Waste and also

some residual commercial and industrial waste. The facility will be capable of recovering / generating 16MWe of electricity with the majority available for export to the grid, 8MWth energy in the form of steam and hot water that could potentially be made available for use off site.

 A facility to treat, recycle and store the Incinerator Bottom Ash (IBA) which is a residue from the waste combustion process. IBA will amount to 22.5% of the imported waste stream, amounting up to 45,000 tpa, the IBA. The IBA can then be used as a secondary aggregate product.

1. Associated works:-

- i. **Gatehouse and 2 Weighbridges** to control traffic and tonnages entering and leaving site.
- ii. **Internal Roadway** System to include 2 lanes and 1 bypass lane together with a roundabout to split traffic within the site.
- iii. **Manoeuvring Area** for vehicles to reverse into the tipping position
- iv. **Tipping Hall** which allows refuse vehicles to tip feedstock into the storage bunker (16m height
- v. **Waste Bunker** that provides a storage area for the feedstock prior to treatment. (36.7m
- vi. **Boiler Hall** which houses the equipment for feedstock combustion, water demineralisation, steam generation, primary/secondary air systems and ash collection. (42m height
- vii. Flue Gas Treatment Area (FGTA) which contains the consumables silos, fly ash silos, flue gas cleaning equipment needed for the treatment of the incineration process and associated emissions monitoring equipment. 29.517 m height
- viii. **Flue Gas Stack** is part of the FGTA which measures 85 metres tall.
- ix. **Ash Conveyor** that transfers the IBA from the boiler hall to the IBA processing area. 18.080 metre height
- x. **Turbine Hall** which houses the equipment necessary to generate electricity from the steam. 20 metre height
- xi. **Air Cooled Condensers** which is used to condense the steam exiting the turbine before returning to the process. Highest point 18.080 metres
- xii. **Emergency Diesel Generator** which may be used to safely shut down the ERF during an emergency.
- xiii. **Substations** that houses transformers, circuit breakers and metering equipment required to construct the facility at 11KV and a further substation to export the electricity produced at 33KV.
- xiv. Administration Building which comprises offices,

- meeting rooms, board room, changing rooms, storage areas, control room and workshop. 28.1metres high
- xv. **IBA (Incinerator Bottom Ash) Facility** which will allow for the recycling, storage and management of the IBA from the combustion process.
- xvi. **Parking Facility** that can accommodate 44 cars and a coach.
- xvii. **Comprehensive Landscaping** to include bunds, fencing, water bodies, tree and grasslands planting that would encourage biodiversity, mitigate visual effect and secure the site.
- xviii. Railhead Provision has been made for linking the proposal to the rail network. A single track would leave the existing rail network (Birkenhead Sidings) and run in a northerly direction, and enter the application site. The track would pass between the IBA area and main building, on the eastern side of the two way road system. Adjacent to the processed IBA storage area would be a set of five sidings.
- 1.02 The planning application is accompanied by an Environmental Statement and Waste Planning Assessment. A fundamental aspect of any EIA is to determine the baseline environmental conditions prevailing at the application site. These form the benchmark against which predicted changes resultant from the development can be assessed to determine the magnitude of any impact. The baseline conditions have been determined by a number of different methods, including desktop studies, site surveys, use of analytical models and the acquisition of data from third parties. A Waste Planning Assessment is required to accompany waste planning applications in accordance with TAN 21 to ensure that the information necessary for making a decision is provided by the applicant when a planning application is submitted. The Waste Planning Assessment should be appropriate and proportionate to the nature, size and scale of the development proposed.
- 1.03 The application site measures circa 10.5hectares and located within the Deeside Industrial Park. The site used to form part of the Shotton Steelworks operation, however the associated buildings were demolished in the late 1970's and 80's allowing it to become a vacant brownfield site.
- 1.04 The application site lies to the east of Weighbridge Road and West of the Wrexham to Birkenhead railway line, the former Gaz de France power station to the south and the A548 to the north. In a wider geographical setting Deeside Industrial Park is located to the north of the river Dee approximately 2.3km north of Connah's Quay and similar distances to the west-southwest of Puddington and south-southwest of Burton. The Deeside Industrial Park lies within an area bounded by the river Dee to the south, the A548 to the west and north

	and the A494 to the east
2.00	RECOMMENDATION: TO GRANT PLANNING PERMISSION, SUBJECT TO THE FOLLOWING:-
2.01	Conditions to include:- 1. Commencement 2. Approved Documents 3. Retention of documents on site 4. Highways, Access and Traffic 5. Drainage 6. Flooding 7. Protection of railway 8. Waste Feedstock 9. Design 10. Risk Assessments 11. Contaminated land 12. Construction/Decommissioning Environmental Management Plan including noise and dust management/mitigation 13. Operational Environmental Management Plan — Noise, odour, vibration, litter, dust 14. Ecology and Bio security 15. Landscaping and fencing 16. Lighting scheme 17. Waste, feedstock delivery and storage 18. Hours of operation 19. Rail head construction and operation 20. Liaison committee 21. Lifetime of development 22. Decommissioning 23. Restoration
3.00	CONSULTATIONS The initial consultation took place during October 2014. As is noted below, an initial objection was received from Natural Resources Wales as to issues relating to flooding on site, consequently the applicant has submitted further information to address these concerns. This information was deemed further information under Regulation 22 of the Town and Country Planning (Environmental Impact) (England and Wales) Regulations 1999 (As Amended). Therefore a formal second consultation process was undertaken on the 26 March, 2015. The consultation responses are summarised below
3.01	Local Member – Councillor B Dunn, Connah's Quay Wepre First Consultation: No correspondence Second Consultation: No correspondence

- As this application is for a major development and the site running along different ward boundaries it was decided to consult members of adjacent wards and not only the present ward members.
 - i. Councillor C M Jones, Sealand First Consultation: Requests that the application be referred to the Planning Committee and due to the scale of development and the possible impact upon the area requests also a Committee Site Visit. Second Consultation: No correspondence
 - ii. Councillor P Shotton, Connah's Quay Golftyn First Consultation: No correspondence Second Consultation: No correspondence
 - iii. Councillor A Dunbobbin, Connah's Quay Golftyn First Consultation: No correspondence Second Consultation: No correspondence
 - iv. Councillor A P Shotton, Connah's Quay Central First Consultation: No correspondence Second Consultation: No correspondence
 - v. Councillor J B Attridge, Connah's Quay Central –
 First Consultation: Strongly objects to the proposal and requests a site visit and also committee determination.
 Second Consultation: No correspondence
 - vi. Councillor I M Smith, Connah's Quay South –
 First Consultation: Concern regarding the potential pollution and noise levels. It is also stated that there are more suitable locations in North Wales for such a development and that the technology chosen appears to be the "dirtiest" way of dealing with residual waste. Requests that the application is referred to planning committee.

 Second Consultation: No correspondence
 - vii. Councillor I Dunbar, Connah's Quay South –
 First Consultation: Concern as to the possible emissions to air from the development, especially the cumulative effect of air emissions from this proposal and other industrial processes in the area and its possible effect on vulnerable locations such as schools. Air monitoring stations should be located at schools to monitor and help alleviate any concerns.
 - Second Consultation: No correspondence
 - viii. Councillor D E Winsinger, Queensferry First Consultation: Requests that the application be referred to Planning Committee and that a Committee Site Visit is also undertaken.
 - Second Consultation: No correspondence
 - ix. Councillor A Minshull, Shotton West First Consultation: No correspondence Second Consultation: No correspondence
 - x. Councillor D Evans, Shotton East First Consultation: No correspondence

Second Consultation: No correspondence

xi. Councillor R Davies, Shotton Higher First Consultation: No correspondence Second Consultation: No correspondence

3.03 | Connah's Quay Community Council –

First Consultation: Objects on the grounds:-

- a. Concern as to how the site was identified as the preferred option
- b. That the County Council's hands are tied as to regulations laid down by Welsh Government on landfill and the liability that will be imposed on Flintshire County Council should planning permission be refused.
- c. Concern is expressed regarding the potential pollution noise, dirt, litter, noxious emissions, vibration, fumes, soot and ash.
- d. Concern is expressed about the increase in road traffic through heavy lorries, especially within built up areas if the A55 or other major route is blocked or closed

Second Consultation: No correspondence

ii. Sealand

First Consultation: No correspondence Second Consultation: No correspondence

iii. Shotton -

First Consultation: Supports the planning application Second Consultation: No correspondence

iv. Queensferry -

First Consultation: No correspondence Second Consultation: No correspondence

Internal Consultations:-

3.04 Conservation and Landscape – Commented that architecturally the proposal has been carefully designed. However there are reservations to the visual impact of the plume arising from the stack, the visual impact of 24 hour lighting and stack lighting.

Second Consultation: No correspondence

3.05 <u>Ecology</u> – The Habitats Regulations Assessment concludes that there will be no likely significant effects on the Estuary or the River Dee providing the development is carried out as detailed within the Environmental Statement together with the mitigation measures proposed to avoid the degradation of water and air quality.

3.06 Suggests in relation to the development of the site that the Ecological Management Plan and Landscape and Mitigation Plan are conditioned to control the timing of site stripping, that a reptile translocation plan is submitted and that new habitats are created on site as soon as possible.

Second Consultation: No correspondence.

3.07 | Environmental Health –

- Air Quality Supporting information demonstrates that the development would not increase the risk of air pollution to the general public, it would not impose significant restrictions on the use or development of surrounding land and it would not result in the need for a higher standard of pollution control.
- II. Odour condition the opening and closing of doors allowing importation of waste to the waste hall
- III. Dust General condition for the abatement of dust
- IV. Noise Conditions relating to background noise levels during both construction and operational phase.
- V. Contaminated Land Conditions relating to further site investigation works and the decommissioning of boreholes
- 3.08 | Second Consultation: No correspondence

<u>Highways Development Control</u> – No objections subject to conditions relating to the submission of a construction traffic management plan, provision of adequate visibility splays, the submission of detailed siting, layout and design of the means of access to ensure that simultaneous two way vehicle movements can be achieved when accessing and egressing the site should planning permission be granted.

- 3.09 | Second Consultation: No correspondence
- 3.10 <u>Highways Rights of Way</u> No observations to make. Second Consultation: No correspondence
- 3.11 <u>Valuation & Estates</u> No correspondence Second Consultation: No correspondence
- 3.12 <u>Emergency Planning</u> No correspondence Second Consultation: No correspondence

External Consultations

3.13 <u>Airbus Operations Ltd</u> – Recommends a condition relating to the lighting of the stack.

Second Consultation: No correspondence

3.14 BHP Petroleum Ltd (Cerys Percival)

First Consultation: No correspondence Second Consultation: No correspondence

3.15 <u>British Pipelines Agency</u> - No correspondence Second Consultation: No correspondence

3.16 CADW – No objection

Second Consultation: No correspondence

3.17 Cheshire West & Chester Council (CWaC) –

Highways - Likely impact on roads within CWaC will be insignificant. Noise impact during construction should have no significant impacts on residents within the Borough. Operational noise of facility should have no impact upon nearest receptors within the Borough.

Air Quality, there are a number of points that needs to be raised:

- 1. With the exception of in stack continuous monitoring, it is unclear what contingency the applicant has made for continued environmental monitoring post commissioning.
- 2. The dispersion modelling should have used the ratified dataset from Hawarden airport meteorological station (4 miles from site) rather than Numerical Weather Prediction (NWP). The NWP windrose presented does not resemble the typical windrose for the Hawarden station, therefore the modelled pollution maxima are likely to be quite different.
- 3. The ratios of NO2 and NOx worst-case scenarios have been potentially underestimated as the predictions appear contrary to the Environment Agency's H1 guidance note.
- 4. Predicted Environmental Concentrations (PEC) are more informative than Process Contributions (PC) to the local environment as they take into account the cumulative impacts of other sources in the area. It may be that the applicant has miscalculated PEC as PC + 0.2 x background rather than PC +2 x background.

Second Consultation: No correspondence

3.19 Landscape - although the proposed development would be visible from some local residential properties and a number of PROW in the Borough, within the industrial context of Deeside Industrial Park, there is no landscape objection.

	Second Consultation: No correspondence
3.20	Clwyd Powys Archaeological Trust – No archaeological implications Campaign for the Protection of Rural Wales – Concern that the proposal is not going to be railway dependant and is to be developed at a later date. HGV movements will result in increased traffic pollution, especially along the A55 and A494 interchange. The proposal is considered contrary to guidelines, advice and policy "One Wales: Connecting the Nation, The Wales Transport Strategy, Planning Policy Wales, TAN 18 – Transport, relevant policies within Flintshire's UPD.
3.21	Dee Naturalist Society - No correspondence Second Consultation: No correspondence
3.22	<u>Deeside Power Station</u> - No comments received Second Consultation: No correspondence
3.23	<u>Dee Wildfowlers & Wetlands Management Club</u> - No correspondence Second Consultation: No correspondence
3.24	<u>Design Commission Wales</u> - No correspondence Second Consultation: No correspondence
3.25	<u>Dŵr Cymru</u> – Standard conditions in relation to connections of land drainage, surface water, foul water to the public sewage system. Advisory note to applicant on establishing the location and status of sewers in the vicinity. Second Consultation: No correspondence
3.26	English Heritage North West Region – The proposal could potentially have an impact upon a number of designated heritage assets and their settings within 5 km of the proposed development. Second Consultation: No correspondence
3.27	EON UK Asset Integrity – No correspondence Second Consultation: No correspondence
3.28	Flintshire Family Health Service – No correspondence Second Consultation: No correspondence
3.29	Health & Safety Executive - No correspondence Second Consultation: No correspondence
3.30	Historic England – No correspondence Second Consultation – No objection
3.31	<u>LIAG</u> - No correspondence

Second Consultation: No correspondence 3.32 Liverpool John Lennon Airport – No objections Second Consultation: No correspondence 3.33 National Air Traffic Services – No correspondence Second Consultation: No correspondence 3.34 National Grid Plant Protection – 25/11/14 - Holding Objection as the proposal is within close proximity to a High-Pressure Gas Pipeline. 09/12/14 – Request that the objection be withdrawn 24/12/14 - Holding Objection as the proposal is within close proximity to their proposed Electricity Transmission converter station. 20/02/15 – Request that the objection be withdrawn Second Consultation: No correspondence 3.35 Natural England – The development is within close proximity to various SAC, Ramsar, SSSI designated sites and advises that Flintshire as a competent authority under the provisions of the Habitats Regulations, should have regard for any potential impacts the development may have on the conservation objectives of these sites. Assessments should also be done on the effects on local sites, local landscape character. The development may provide opportunities to incorporate features which may be beneficial and enhance wildlife. Second Consultation: No correspondence 3.36 Natural Resources Wales (NRW) - 27/10/14 - Objects to the application in its current form as insufficient information and evidence has been submitted with respect to: Flood Risk – The submitted Flood Consequence Assessment (FCA) is inadequate to determine whether the site can be developed in accordance with TAN 15 and a revised FCA should be submitted for consideration. Protected Sites - The planning consultation does not include a satisfactory assessment under Regulation 61 of the Conservation of Habitats & Species Regulations. 3.37 Having addressed other facets of the development NRW require the inclusion of planning conditions in relation to Biosecurity on site, Ecological Compliance Audit to be undertaken, Land Contamination, Groundwater Protection and also Advisory information relating to contaminants 3.38 30/01/15 - Subject to the information received from the Applicant's Consulting Engineer and Test of Likely Effects received we maintain

our objection on the grounds of flooding and Protected Sites.

3.39	27/02/15 – Test of Likely Effects, counter signed by NRW Officer
3.40	04/03/2015 – Removal of objection, subject to conditions in relation to the implementation of a surface water regulation system, that the land and site is restored to pre development levels by 2050 or prior should operations cease, submission of a biosecurity/invasive species survey for the site, the submission and implementation of an Ecological Compliance Audit Scheme for the site.
3.41	Second Consultation: No objection to the amended description to that of a temporary permission up to the 31st December 2050 as this overcomes NRW's concerns with respect to flood risk for the lifetime of the development. They have requested the inclusion of conditions in relation to the cessation of development by this date, a decommissioning and restoration scheme be submitted. Together with a condition requiring the submission of a scheme for the implementation of a surface water regulation system. They would also wish to be consulted on the proposed conditions in relation to pollution control, contamination and ecology as noted within previous consultation responses prior to planning approval.
3.42	Network Rail (Town Planning Team) – No objections subject to conditions relating to drainage, earthworks/excavations/ground levels, fencing. They also have submitted advisory information in relation to safe train paths, risk assessment, buffers away from boundary and the planting of trees: Second Consultation: No correspondence
3.43	North East Wales NHS Trust – No correspondence Second Consultation: No correspondence
3.44	North Wales Fire Service - No correspondence Second Consultation: No correspondence
3.45	Public Health England - No correspondence Second Consultation: No correspondence
3.46	Public Health Wales – No correspondence Second Consultation: No correspondence
3.47	RSPB Cymru – No correspondence Second Consultation: No correspondence
3.48	<u>SP Energy Networks</u> – Advisory as to the location of electrical equipment, connecting to the electricity network and working below overhead power lines. Second Consultation: No correspondence
3.49	Wales & West Utilities – Enclosed an extract from their mains records

for the area of the application site. The information provided gives details of the different apparatus Wales & West Utilities have in the area and is generally passed to the applicant in the form of advisory notes should planning permission be granted.

Second Consultation: Repeat of the firs consultation as noted above

3.50 <u>Welsh Government (Transport)</u> – No objections subject to a condition requiring the submission of a Construction Traffic Management Plan. Also include advisory information relating to highway requirements and regulations.

Second Consultation: No correspondence

- 3.51 <u>Wirral Council (DM)</u> No correspondence Second Consultation: No correspondence
- 3.52 Wrexham and Birkenhead Rail Users Association No correspondence Second Consultation: No correspondence

4.00 | PUBLICITY

- 4.01 This application was originally advertised by way of press notices, site notices. Neighbour notification letters were dispatched to nearest residential receptors. Under Regulation 19 of The Town And Country Planning (Environmental Impact) (England And Wales) Regulations 1999 (As Amended). The application was re advertised in the same way. Additionally, notification letters were sent directly to people and organisations that had commented on the original application.
- 4.02 The application was advertised in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. A copy of the application was also placed at Deeside Library and Flintshire Connect Offices.
- In response to the public consultation exercise; the application received 12 objections, 18 supporting and 2 letters expressing concern during the first round of consultation. During the second consultation process, up until the date of publishing (9th April) no further observations were received. The issues and responses raised have been bulleted below.

The objection comments and concerns are chronicled as follows:-

- Concern regarding the potential airborne discharge, including concerns at to particulate matter that will be emitted as part of the incineration process and it's effect on health, especially in susceptible locations e.g. schools
- The negative effect the proposal may have on property prices*

- The highway network in the area is already congested and over used; the additional traffic generated by this development will create serious tailbacks.
- The increase in traffic will contribute further to air pollution locally
- The cumulative effect of established developments such as the papermill, steel works and power stations together with this proposal will add further to air pollution in the area.
- Queensferry is the dumping ground for all of Wales!
- The resultant discharge of dealing with Welsh waste will have a negative impact on areas of England
- There is no evidence to suggest that the proposal will improve air quality.
- Concern that although the proposal will treat less waste from the partner authorities in the long term, it will potentially increase its usage and capacity over the period as wastes will be imported from other locations as feedstock.
- Concern as to the outdated technology in dealing with waste proposed here.
- Should the development be permitted, strict conditions should be imposed to regularise the operation and that emissions, noise and traffic are monitored.
- Such a facility is not the answer to the waste problem. Governments, organisations, retailers, businesses and individuals should take responsibility for tackling the source of waste.
- The area of Flintshire subject to this planning application is an area of high urban population with more than its fair share of polluters.
- Concern is expressed that this proposal was the one and only choice in relation to site where project would be built.
 When a site in Anglesey became unavailable, the process should have been stopped and further options explored.
- Concern is expressed that the preferred bidder became the only bidder as the process evolved.
- A private sector company will clearly seek the flexibility to burn a range of wastes at the minimum of cost to maximise income.
- Since the proposal was first put forward the Williams Commission has reported. This puts forward the merging of local authorities including Flintshire with Wrexham. It is strange that we could end up with a new local authority where half of its waste is dealt with in Deeside while the rest is sent somewhere else in the country.
- There is a failure to demonstrate a need for a facility of this capacity and, related to this, noncompliance with Welsh Government policies, the waste hierarchy and the proximity principle.
- Deficiencies in the procurement process and failure to ensure

- that best value for money is obtained.
- The poor environmental record of the preferred bidder in the USA*
- The impact of a contract guaranteeing minimum tonnages and the imposition of an unnecessary long-term financial burden on taxpayers.
- The applicant has over estimated waste arisings in justifying the application

4.04 | Supporting comments are chronicled as follows:-

- Such a facility would be sustainable and environmentally friendly as it will recover non-recyclable waste into energy and recyclable material that would otherwise go to landfill.
- The proposal will benefit local commerce through the creation of construction and operation jobs to the area.
- The proposal will create ancillary jobs through supply chain opportunities and opportunities for local business to compete for contracts associated with the construction and operation of the development such as haulage, maintenance, security, catering.
- The proposal will increase the number of skilled jobs in the area both in the short and long term.
- The proposal will reduce a certain amount of need to import coal and gas and a new form of energy security.
- The technology proposed is a well proven way of disposing of non-recyclable waste in an efficient way.
- The facility will probably produce a cleaner exhaust gas than coal burning power stations.
- The facility is a much needed long term solution for dealing with non-recyclable waste to the area.
- The site is well located in relation to transportation links.
- Modern plants have very good flue gas abatement techniques as the emission limit values enforced via the permit are very stringent and are monitored continuously.
- The plant could be used for a district heating scheme as done in Sheffield, London etc.
- This project has the potential to showcase Flintshire's inward investment opportunities and potential to other internationally based companies.
- Energy recovery is the best, most sustainable means of disposal for our residual waste.
- Similar facilities in North West England employ young people in high quality jobs with long term prospects. It is considered that such a facility could provide the same opportunity for the young people of North Wales.
- This is an ideal site, with a proven technology, which fits squarely with Welsh Governments aspirations for zero landfill and green energy production.

In an area that has suffered economic decline over the past 30 years, it is a breath of fresh air to see companies willing to invest in the area. Prior to the submission of this application, the applicant undertook a 4.05 54 day community consultation exercise. The components of the consultation were a project newsletter, a website, project booklet, press releases through various media sources across North Wales, reminder postcards, newspaper advertisements, individual / group briefings with all this cumulating in pre application public exhibition events in the communities closest to the site at Coleg Cambria, Connah's Quay Civic Hall, Connah's Quay Town Council, Gladstone Village Hall, Days Hotel, Deeside Leisure Centre. 4.06 Feedback forms were completed by 42 members of the public during the consultation period. The majority of those residents who completed feedback forms had the following observations and concerns regarding the proposal:-Suitability of site location – It was suggested that a more central site would better serve the 5 partner authorities. Design and visual impact – The stack should be as low as possible. Scope of operations and the sourcing of waste – The distances the waste streams would need to travel to the proposed site. concern that the site may be expanded to take more waste, comments were received that the facility should only take waste from the NWRWTP contract. • Impact of traffic - Concern as to the noise, emissions and congestion that will be generated as part of this proposal. • Noise – Comments were received as to the cumulative impact of noise from the Deeside Industrial Park and that noise should be minimised. Air Quality and odour – Concern were raised as to air quality and odour and how this would be abated to ensure that public health is not impacted. Local ecology - Concern was raised as to the effect of the development on the nearby RSPB reserve. Community benefits - Any funding made available should directly benefit the local community through e.g. youth/young people projects; reduce energy bills of local residents and businesses. 4.07 The areas of concern raised by local residents who attended the event included air quality, ecology, noise, visual impact and job creation. 5.00 SITE HISTORY The site is located within Deeside Industrial Park which has a history 5.01

	of industrial usage. This site used to form part of the Shotton Steelworks operation, however since the 1980's all buildings have been demolished and the site became a vacant brownfield site. In 2000 some use was made of the northern part of the site as an inert waste storage depot by Flintshire County Council (030772).
6.00	KEY ISSUES
6.01	A basic principle when assessing planning applications is outlined in – Section 38(6) of the Town and Country Planning Compulsory Purchase Act 2004 and paragraph 3.1.2 of Planning Policy Wales which states that applications should be determined in accordance with the approved or adopted development plan for the area, unless material considerations indicate otherwise.
7.00	PLANNING POLICIES
7.01	The main planning policies and guidance relevant to the determination of this planning application are considered to be as set out below:
	ELOCAL PLANNING POLICY Flintshire Unitary Development Plan (Adopted September 2011) Policy STR1 - New Development Policy STR 2 - Transport and Communications Policy STR 3 - Employment Policy STR7 - Natural Environment Policy STR10 - Resources Policy GEN1 - General Requirements for Development Policy D1 - Design Quality, Location and Layout Policy D3 - Landscaping Policy D4 - Outdoor Lighting Policy WB2 - Sites of International Importance Policy WB3 - Statutory Sites of National Importance Policy WB3 - Statutory Sites of National Importance Policy AC2 - Public Rights of Way Policy AC4 - Travel Plans for Major Traffic Generating Capacity Policy AC9 - Provision of New Rail Freight Facilities Policy AC12 - Airport Safeguarding Zone Policy AC13 - Access and Traffic Impact Policy AC15 - Traffic Management Policy AC16 - Parking Provision and New Development Policy EM1 - Employment Allocations Policy EM3 - Development Zones and Principal Employment Areas Policy EM7 - Bad Neighbour Industry Policy EWP2 - Energy Efficiency in New Development Policy EWP5 - Other Forms of Renewable Energy Generation Policy EWP6 - Areas of Search for Waste Management Facilities Policy EWP7 - Managing Waste Sustainability Policy EWP8 - Control of Waste Developments and Operations Policy EWP9 - New Development and Waste Management Facilities

Policy EWP12 - Pollution

Policy EWP13 - Nuisance

Policy EWP16 - Water Resources

Policy EWP17 - Flood Risk

Policy IMP1 - Planning Conditions and Planning Obligations

GOVERNMENT GUIDANCE

7.03 | Planning Policy and Guidance

Planning Policy Wales (2014)

Technical Advice Note 5 – Nature Conservation and Planning (2009)

Technical Advice Note 8 – Renewable Energy (2005)

Technical Advice Note 11 – Noise (1997)

Technical Advice Note 12 – Design (2009)

Technical Advice Note 15 – Development and Flood Risk (2004)

Technical Advice Note 18 – Transport (2007)

Technical Advice Note 21 - Waste (2014)

Technical Advice Note 22 – Sustainable Buildings (2010)

Technical Advice Note 23 – Economic Development (2014)

The Waste Framework Directive

7.04 <u>Waste Strategy Policy and Guidance</u>

Towards Zero Waste: The overarching Waste Strategy Document for Wales, June 2010

Collections, Infrastructure and Markets Sector Plan, 2012

Construction and Demolition Sector Plan, 2012

The Waste (England and Wales) Regulations 2011

7.05 | National Energy Policy

The Energy Act 2013

UK Renewable Energy Strategy (2009)

UK Low Carbon Transition Plan (2009)

Climate Change Act (2008)

Energy Wales: A Low Carbon Transition (2012)

- 7.06 The main policies to be considered in the determination of this application are the policies of the Flintshire Unitary Development Plan (FUDP) particularly policies relating to waste management and renewable energy, amenity (air quality, noise), visual impact, highways, flood risk, nature conservation and statutory sites. The Policies and guidance contained within TAN21 are also central to the determination of this application. The materiality of the above polices are discussed in the following planning appraisal.
- 7.07 In exercising its planning functions in dealing with waste management applications; Local Planning Authorities must consider Articles 18 and 20 of The Waste (England and Wales) Regulations 2011, which states that the Waste Framework Directive EC Council Directive 1999/31/EC (Landfill of Waste) and 2008/98/EC must be given weight.

8.00	PLANNING APPRAISAL
8.01	Introduction The details of the proposed development will be outlined below together with, a summary of the North Wales Residual Waste Treatment Project, site constraints and the issues that will be assessed within the main planning appraisal.
8.02	The North Wales Residual Waste Treatment Project (NWRWTP) The EU Landfill Directive specifying European targets for the diversion of biodegradable municipal waste from landfill together with the Waste Framework Directive is driving Local Authorities to manage waste as high up the up the Waste Hierarchy as possible. In order to achieve this, the EU and Welsh Assembly Governments have set stringent recycling targets and have detailed their proposed penalties to Local Authorities who fail to deliver alternative waste management arrangements. As a result the Welsh Assembly Government has made it clear through the adoption of The National Waste Strategy document Towards Zero Waste that resources will be directed towards local authority policies which are based on very high levels of waste recycling and composting; together with minimal levels of landfilling.
8.03	As a result in 2008 the 5 North Wales Authorities of The Isle of Anglesey County Council, Gwynedd County Council, Conwy County Borough Council, Denbighshire County Council and Flintshire County Council formed a partnership to ensure that the requirement for a residual waste treatment solution was addressed in a sustainable and cost effective manner while also agreeing to deliver their own solutions to achieve the recycling and composting levels required by the Assembly Government.
8.04	As part of the NWRWTP procurement process a shortlist of 7 technologies were outlined and 20 sites were evaluated and identified to determine their potential to accommodate such a development. During the procurement process the site subject to this planning proposal was selected and the technology adopted would be that of ERF. Also Whellabrator Technologies was selected as the preferred developer and operator of such a facility.
8.05	Details of the Proposed Development Wheelabrator Technologies are applying for planning permission to build an Energy Recovery Facility (ERF) that would treat up to 200,000 tpa of Municipal Solid Waste ('MSW') collected by the five authorities making up the North Wales Residual Waste Treatment Project and residual commercial and industrial (C&I) waste, collected by private waste management companies up until the 31st December 2050 in accordance with Article 10 (Recovery) 16(Principles of self-sufficiency and proximity) of the Waste Framework Directive. This will result in the production of 16MW of electricity with approximately

14MW of electricity available for export to the national grid. The facility will also be capable of exporting up to 8MW of heat, thereby operating as a Combined Heat and Power facility, upon securing a suitable heat customer. For the avoidance of doubt - Municipal Solid Waste can be translated as black bag waste, this is the residual waste left over after as much front end recycling has been undertaken.

- 8.06 The ERF would also include a facility that would treat and recycle approx. 45,000 tpa of Incinerator Bottom Ash (IBA), which is a byproduct of the treatment process, and is utilised as a bulk fill aggregate in accordance with Article 6 (End of waste status) of the Waste Framework Directive.
- 8.07 The operation of the plant is based on a continual 24 hour operation operating 365 days a year, with allowance given for maintenance and shut down procedures.
- 8.08 **The Site, Designations and Relevant Planning Constraints**The site is situated within 260 m of the Dee Estuary. The Dee Estuary is a Ramsar site, Site of Special Scientific Interest, Special Area of Conservation, Special Protection Area, and a RSPB Reserve.
- 8.09 From the current Development Advice Maps provided by Welsh Government under Planning Policy Wales Technical Advice Note 15 (TAN15) the application site appears to border the C1 Flood Zone as it runs along its western boundary. C1 Flood Zone is defined as an area of the floodplain which has been developed and is served by significant infrastructure, including flood defences. A Flood Consequences Assessment (FCA) has been submitted as part of the Environmental Assessment in support of the planning application.

Policy Appraisal and the Principle of Development

- When assessing the merits of this application as a waste management facility, consideration and weight should be given to the UDP Policies, Planning Policy Wales (TAN21, the suite of Sector Plans), The Waste Regulations and The Waste Framework Directive.
- 8.11 The site is allocated within the Flintshire Unitary Development Plan as Employment Land under Policy EM1 and EM3 Development Zone and Principal Employment Area. The site is an existing brownfield site and the policy states that sites listed are allocated for B1, B2, B8 employment uses unless otherwise stated provided that the proposal; is of an appropriate type and scale for both the site and its surroundings, it will not unacceptably harm residential or other amenity or restrict neighbouring land uses, it provides satisfactory on-site parking, servicing and manoeuvring space and that the highway network, including access and egress is adequate to safely cater for

the type and volume of traffic generated by the proposal, and it has no significant adverse impact on the integrity of nature conservation sites, the landscape and historic features. The development therefore accords with the objectives of these policies.

- 8.12 The site is also listed within Policy EWP6 as an Area of Search for New Waste Management Facilities. Where a proposal is made for the development of a site which would involve the management of waste which is listed within the locations identified within the Area of Search policy, then permission will be granted subject to the proposal meeting other relevant plan policies. Other policies that should be considered as part of this application includes policy EWP7 -Managing Waste Sustainably that requires proposals for new waste management facilities to ensure that facilities seek to treat and/or dispose of waste as close to the generation source as practically possible, considers the potential to transport waste by means other than road and facilities should treat and/or dispose of waste using the best practical environmental option. The proposed development is located in an appropriate setting which is close to the generation of waste, and the location supports other infrastructure beneficial to the development and therefore accords with the objectives of these policies.
- 8.13 Policy EWP8 - Control of Waste Developments and Operations requires proposals for new waste management facilities to only be permitted provided that development does not either directly or indirectly have a significant adverse impact on recognised features of the landscape, sites of nature conservation value, sites/localities of historic archaeological and/or architectural importance. Developments do not detrimentally affect the health and amenity of neighbouring land users. Measures are included within the proposal to mitigate any adverse impacts including appropriate landscaping and screening, and the safeguarding or repositioning of public rights of way. That adetailed scheme of restoration is submitted together with a proposal for an appropriate and beneficial after-use. That development does not have a significant adverse impact on water courses, air and soil quality and on flora and fauna. The development and any associated traffic does not result in unacceptable disturbance to local communities, through noise, smell, vibration, smoke or air pollution. The development therefore accords with this policy.
- 8.14 GEN 1 General Requirements for Development requires the development of sustainable communities, by ensuring that proposals for development are submitted with the highest standards of quality and design possible, are carried out in a responsible and appropriate manner, and have the minimum adverse impacts on the physical, social and economic environment around them. This policy should also be applied in conjunction with other relevant policies of the Unitary Development Plan. The development is within the wider

Deeside Industrial Park and Estates complex, and is appropriate for the setting. The location is distant from residential development and will be carried out to minimise impacts beyond the site. It is considered that the development meets the criteria set out in this policy.

Other Local Policies that should be considered in the context of this proposal

- 8.15 Policies WB 1 Species Protection, WB2 Sites of International Importance, WB5 Undesignated Wildlife Habitats and WB6 Enhancement of Nature Conservation relate to the County's biodiversity objectives, with the requirements for developments to promote the ecological and nature conservation value of the site and not affect the conservation values and objectives of Protected sites. The proposed development does not have a direct impact on protected species and habitats or international wildlife sites. Conditions are proposed for on-site wildlife management plans and ecological audit compliance schemes. As such, the development accords with these policies.
- 8.16 Policies D1- Design Quality, Location and Layout, D3 Landscaping, requires developments to incorporate good design standards, requires developments respect the scale of surrounding developments and is positive and attractive within its location and setting. The development is of an appropriate scale and design within an area designated for major industrial development and together with landscaping measures, will ensure the development accords with these policies.
- 8.17 Policy EWP14 Derelict and Contaminated is to ensure that developments do not pose residual risk on site for future receptors and will also minimise as far as possible the off-site disposal of contaminated waste material. The management of contamination as set out in the application and conditions to provide control will ensure that the risks associated with contaminated land are compliant with the policy.
- 8.18 Policies AC2 Pedestrian Provision and Public Rights of Way, AC4 Travel Plans for Major Traffic Generating Development, AC9 Provision of New Railfreight Facilities, AC13 Access and Traffic Impact, AC15 Traffic Management, AC18 Parking Provision and New Development: Requires that proposals can adequately accommodate the traffic likely to be generated by a development without compromising public safety, health and local amenity. It also aims to encourage the transfer of freight away from road to rail so as to provide a cleaner, less energy dependant and safer means of transporting freight. Requires safe vehicular access to avoid an unacceptable effect on the highway network. It also requires developments to acknowledge and promote the ethos of sustainable transportation methods. The location and access to the principal

highway network, and rail network, together with an analysis of the traffic generation and on-site parking provision minimises unnecessary traffic journeys means that the development is compliant with these policies.

- 8.19 Policy EWP12 Pollution requires developments do not increase the risk of air pollution to the general public, and would not impose significant restrictions on the use or development of surrounding land and would not result in the need for a higher standard of pollution control. It also requires that the Authority pays regard to the expert advice of other competent authorities in relation to developments that are subject to pollution control standards. The proposed development does not give rise to levels of pollution which would place members of the public or the environment at risk of harm. The process control and level of regulatory control, condition, and other controls such as an Environmental Permit administered by Natural Resources Wales means that the potential for sustained levels of nuisances are very low, and therefore complies with this policy.
- 8.20 Policy EWP 13 Nuisance, considers developments which are sensitive to noise, vibration, odour, dust or light pollution and which is proposed near to existing sources of nuisance, such as railways, roads, airfields or industrial activities. The proposed development does not give rise to effects which are likely to cause nuisances. The location is heavily industrialised and the nearest residents are located a considerable distance away. The process control and level of regulatory control, condition, and other controls such as an Environmental Permit administered by Natural Resources Wales means that the potential for sustained levels of nuisances are very low, and therefore complies with this policy.
- 8.22 Policy EWP 17 Flood Risk, requires developments which would seek to reduce the impact and frequency of flood risk of areas at risk of flooding. The information provided, including additional information, relating to surface water and tidal flood risk meets the requirements of TAN 15 and this policy.

The Waste (England and Wales) Regulations 2011

In exercising its planning functions in dealing with waste management applications; Local Planning Authorities must consider Articles 18 and 20 of The Waste (England and Wales) Regulations 2011. These impose a special duty to take account of the European Council Waste Framework Directive 2008/98EC and 1999/31/EC (The Landfill of Waste) in so far as it applies, and must be given weight when exercising their planning functions. Article 18 of the Regulations requires local planning authorities to take particular account of Articles 13 and 16 of the Waste Framework Directive 2008/98/EC. Article 20 of the Regulations refers to Landfill Directive 1999/31EC and is not considered further.

- 8.24 Article 13 of the Directive (Protection of human health and the environment) requires Member States to take the necessary measures to ensure that waste management is carried out without endangering human health, without harming the environment and in particular:
 - (a) without risk to water, air, soils, plants or animals;
 - (b) without causing a nuisance through noise odours; and
 - (c) without adversely affecting the countryside or places of special interest.
- 8.25 Article 16 of the Directive (Principles of self-sufficiency and proximity) requires Member States to take appropriate measures to establish integrated and adequate network of waste disposal installations and installations for the recovery of mixed municipal waste. It requires Member States individually to move towards the aim of self-sufficiency, taking into account geographic circumstances or the need for specialised installations for certain types of waste, and that the network shall enable waste to be disposed or recovered in one of the nearest installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.
- 8.26 In taking account of the requirements of Article 13, it is noted that the information set out with in the planning application, Environmental Statement and other supporting documentation concludes that the proposed development can be operated without causing harm to humans or the environment. The responses from the key statutory consultees do not highlight any serious discrepancies with the application and raise no objection, and planning conditions will be applied to mitigate and control any adverse impacts. Similar development is operational elsewhere in the UK and across Europe and the operation and control mechanisms are well understood. In addition to the planning system, the primary process operational control for the development is applied by The Environmental Permitting (England and Wales) Regulations 2010 (as amended) which transposes Directive 2010 /75/EU on industrial emissions. This requires a Permit to be secured before the treatment and processing of any waste can take place, and is regulated by Natural Resources Wales. In principle, the local planning authority is satisfied that the requirements of Article 16 are met, and can be controlled via both planning conditions and by the Environmental Permit.
- 8.27 In taking account of the requirements of Article 16, the proposed development is a facility to provide a specialised means of treating residual municipal waste and some industrial and commercial waste from the private sector. The development is specifically to reduce the dependence on landfill as a means of managing the final disposal of waste, and will provide for an adequate network of facilities to

manage such waste within the geographic region that the waste is generated in. The waste delivered to the site will have already been subject to a high degree of pre-sorting to remove materials for recycling and recovery, as each partner authority providing feedstock has separate collection provisions in place for kerbside waste separation and food wastes. It is only the residual waste which will be supplied to the proposed facility. The geographic location is such that it is able to service the needs of the North Wales councils, and is able to take advantage of the local market and infrastructure for heat and electricity. At the present time there is no alternative facility for the thermal treatment of residual household waste in North Wales. The design of the facility and a high level of process and operational control will provide safeguards to ensure a high level of protection for the environment and public health.

8.28 It is worth noting that a number of other articles in the Waste Framework Directive also apply, these being: Article 4 Waste Hierarchy, Article 10 Recovery, Article 11 Re-use and recycling, Article 12 Disposal, Article 16 Principles of self-sufficiency and proximity and Article 22 Bio-waste. These apply at a Member State level and the UK and Wales has made legislative and policy provisions to address these articles. It is worth noting that the proposed facility is designed to move the overall management of waste further up the waste hierarchy away from disposal through landfill, to that of energy recovery, this will coincide with the high degree of pre-sorting for materials recycling and recovery and bio food waste treatment that is already taking place. The facility will help ensure that Wales becomes more self-sufficient for the treatment and disposal of residual municipal and other commercial private sector wastes.

National Waste Policy

8.29

The Waste Planning Assessment and addendum submitted by the applicant states that the prime purpose for the proposal is to divert residual wastes collected by each of the 5 partner authority from landfill up until the 31st December 2050 to accord with National Policy and Targets. This will secure the maximum value from the residual waste in the form of electrical and thermal energy and the production of recyclable materials (metals and IBA) over a period up to 2050, when zero residual waste targets to landfill and/or recovery are to be met in accordance with National Policy targets. The proposal is also to divert residual Industrial and Commercial Wastes from landfill as it will have a capacity to accept feedstock from these sectors also. As such, the proposal would treat waste as a resource and move the residual waste up the Waste Hierarchy and contribute to the sustainable management of waste in accordance with the Landfill Directive, Article 4 (Waste Hierarchy) of the Waste Framework Directive, Planning Policy Wales, and other national waste policies

and guidance.

- 8.30 The Collections, Infrastructure and Markets Sector (CIMS) Plan which is one of the suite of waste sector plans which is part of the National Waste Strategy, looks to create conditions to enable as much waste as possible to be managed in Wales. In order to achieve this, Wales will have to establish a network of facilities to deal with the current and future waste arisings in accordance with the waste hierarchy. As significant new capacity is required it is considered that this proposal would help provide the North Wales Region with an integrated and modern waste management facility as is required under Article 4 (Waste Hierarchy) and 16 (Principles of self-sufficiency and proximity) of the Waste Framework Directive and to deliver the Welsh Governments vision to recycle 70% of all waste by 2025 and aim for zero waste to landfill or recovery by 2050.
- 8.31 The Industrial and Commercial Sector Plan largely re-iterates Towards Zero Waste and the CIMS plan. It recognises the need to reduce the reliance on landfill through diverting residual waste to other forms of recovery, such as high efficiency energy from waste facilities
- 8.32 As the application is to manage the residual waste stream collected by the five partner authorities over a period of 25 years as required under National Policy and the Waste Framework Directive. Information has been provided within the Waste Planning Assessment regarding the projected arisings of local authority collected waste together with the projected residual waste that would be managed at the facility. As noted above, there is a cap on the amount of waste that can be sent for energy recovery of 30% after 2025. However Towards Zero Waste indicates that processed IBA is counted towards the recycling figures and as such, the cap would not be 30% of the total waste arising, but is adjusted to reflect the production of IBA for use as a secondary aggregate. The applicant has calculated that the amount of projected waste capable of being accepted at the facility should be based on the assumption that 22.5% of the imported waste stream produces IBA, 98% of which is recycled to produce secondary aggregate. This can therefore be added to the gross tonnes capable of being accepted at the facility.
- 8.33 Objections have been raised as to the projected residual waste arisings figures submitted in support of the application, especially as past figures demonstrates that recycling figures are on the increase and residual waste figures are on the decrease. Objection is also voiced that IBA has not been given an end of waste position by the Environment Agency / NRW and it shouldn't therefore be considered a recyclable material in justifying a higher gross tonnage gate at the facility.

- 8.34 The applicant has responded to this by stating that the figures submitted by the objector to contrast with the applicants were sourced from outdated 2007 data and were not the basis for the planning application. The data within the application uses forecasts provided by the NWRWTP and were gathered directly from the partner authorities based on waste arisings within their own authorities and Welsh Government targets. They also note that although aspirational targets are in place for waste reduction year on year, the main driver for the increase in arisings over the contract period is population growth within the region and although waste arisings per capita is likely to diminish, the tonnage of waste arisings will increase due to a forecasted increase in population. In response to the point on IBA, it is clearly stated within Towars Zero Waste (CIMS page 70) that IBA will count towards recycling targets.
- 8.35 Feeding into Article 16 of the Waste Framework Directive, TAN21 states that more waste recovery facilities need to be developed across Wales to ensure that sufficient capacity is maintained at a level appropriate to support the overall aims of the National Waste Strategy; Towards Zero Waste.
- 8.36 In exercising its planning functions in dealing with waste management applications; Local Planning Authorities must consider Articles 18 and 20 of The Waste (England and Wales) Regulations 2011, which states that the Waste Framework Directive and EC Council Directive 1999/31/EC (Landfill of Waste) must be given weight when exercising its planning functions. Article 13 (Protection of human health and the environment) of the Directive requires that waste management developments will not harm human health, environment, water, air, soils, plants, animals, cause nuisance by odour or noise, and not adversely affect places of special interest. Therefore, when assessing the merits of this application as a waste management facility, consideration and weight should be given to the UDP Policies. Planning Policy Wales (TAN21 the suite of Sector Plans), The Waste Regulations and The Waste Framework Directive.
- 8.37 Energy policy and targets is a reserved function that is not devolved to the Welsh Government (WG). The proposed development is to utilise residual waste for the generation of electricity and heat that can be offset against conventional forms of energy production. The proposal is therefore seen as a key part in delivering EU and UK Targets for renewable and low carbon energy. Such targets have been set by The UK Renewable Energy Strategy 2009, The UK Low Carbon Transition Plan, The Climate Change Act, Energy Wales: A Low Carbon Transition and TAN 8 Planning for Renewable Energy.
- 8.38 The proposal would also utilise an existing brownfield site, a principle which is supported by the new TAN21 on Waste, as is locating proposals where site infrastructure is present which includes electricity grid connections. As such, the proposal would contribute to

the principles of sustainable development advocated within Planning Policy Wales.

Policy EWP1 of the Flintshire Unitary Development Plan states that there will be a presumption in favour or renewable energy schemes subject to them meeting other relevant requirements of the plan which will be considered in the following sections of the report.

- 8.39 Ecology, Habitats Regulations and impact on designated sites
 The site lies 260 metres north of The Dee Estuary SPA, SAC,
 Ramsar site, SSSI; and 1,565 metres to the south-east of River Dee
 SAC and SSSI. Concern has been raised in relation to the impact the
 proposal may have on these designated sites and the habitats and
 species contained within them.
- 8.40 The Ecological Assessment submitted as part of the Environmental Statement has considered the effects of noise, vibration, dust, lighting, alterations to water flows, ground conditions and air quality emissions of both the construction and operational phases of the proposal and their effects on the Dee Estuary. The Assessment concludes that noise and vibration is unlikely to have any significant negative impact. Dust emissions will have no significant impacts. Hydrologically there is a scope for the proposal to indirectly affect adjacent land as a result to changes in hydrology. Emissions from the flue stack has the potential to impact upon the Dee Estuary and also internationally designated sites further afield; but having calculated critical nitrogen load deposition within the Dee Estuary the assessment states that the development will have no significant impact to the Dee Estuary or upon internationally designated sites further afield.
- 8.41 As to the overall ecological value of the development site it is considered to be of district level of importance, and this value will be compromised and lost during the construction phase. However, it is considered that this loss will be will be temporary as the landscaping of the site will promote ecologically rich habitat.
- The LPA as competent authority under the Habitats Regulations have undertaken an Assessment of Likely Significant Effects in consultation with Natural Resources Wales. The conclusion of the assessment considered that provided that the development is carried out as detailed within the Environmental Statement, with mitigation measures proposed to avoid degradation of water and air quality; there will be no likely significant effects to the designations of the Dee Estuary or the River Dee and that an Appropriate Assessment will not be required.
- 8.43 Referring to the direct affect the proposal may have on the ecology of the site. The Authority's Ecologist's response notes that should planning permission be forthcoming it should be subject to conditions

relating to the submission of an Ecological Management Plan that would restrict the stripping of the site to months outside the bird nesting season, the undertaking of an invertebrates translocation programme off site. It should also be subject to a condition relating to a Landscape Management Plan so as to promote the ecology as part of the landscaping scheme. NRW also would request an Ecological Compliant Audit Scheme to be included as a condition

8.44 It is considered that the ES submitted by the applicant that includes an Assessment of Nature Conservation Value of the Site. Habitats Regulations Assessment, Assessment of Impacts, Mitigation and Enhancement Strategy provides sufficient information as to the ecology of the site, the ecological value of the Dee Estuary and the River Dee and the mitigation and enhancement strategies proposed. The Test of Likely Significant Effects undertaken by Flintshire as the competent authority concludes that no significant effects will be had upon both international designations. The inclusion of conditions suggested by the Ecological Officer relating to site clearance to mininise disturbance, the translocation of species to facilitate species survival, together with a landscaping proposal which is to promote the ecological and nature conservation value of the site. Therefore the proposal accords with the requirements of planning policies GEN1. WB1 – Species Protection, WB5 – undesignated Wildlife Habitats and WB6 - Enhancement of Nature Conservation of the Flintshire UDP, TAN5 – Nature Conservation together with the requirements of Article 13 of the Waste Framework Directive.

8.45 Landscape, Visual Impact and Design

The application site lies within the Deeside industrial area, and is constrained by the A548 to the north, Deeside Industrial Park to the east, UPM's Shotton Paper Mill to the west and the Gaz de France (GDF) Suez Power Station to the south; the former currently being decommissioned with all buildings (and stacks) demolished. Other large scale developments within the area include the Toyota Engine Plant to the south east, TATA Steel Works to the south west and two further power stations to the west, these being Deeside Power Station and the EON's Connah's Quay Power station, the latter being on the opposite side of the Dee Estuary. This industrial activity is generally constrained by the A548 to the north and west, A494 to the east and Dee Estuary to the south with some development being between the southern banks and railway line which is set back circa 0.5km from the water's edge.

- 8.46 The site is located within the Urban landscape character area (Garden City coastal and estuary urban area) of the Visual and Sensory Class 3 LANDMAP definition. The site is also visible from various PROW in the locality and along sections of the "Flintshire coastal path".
- 8.47 Residential receptors are generally at a distance of over 2km from the

site at Garden City to the South East, Connah's Quay and Shotton to the South and South West, while there are more scattered residential receptors to the North in the areas of Burton and Puddington.

- 8.48 The Landscape and Visual Impact Assessment submitted in support of the application identifies and assesses the significance of and the effects of change resulting from the development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.
- 8.49 It is accepted that due to the developments scale and mass it would be visible from various locations locally; therefore the applicant has undertaken an assessment of residual visual impact and the applicant determined that the following viewpoints should be selected in determining the proposal's effects:-Station Road (Burton), Burton Mere Wetlands, Shotwick, Garden City, Wales Coastal Path near Golftyn, Mold Road (Wepre), Wepre Lane, Northop Hall, Paper Mill Lane (Oakenholt), Wales Coastal Path (Near Flint Castle), Weighbridge Road (A548), Nessholt.
- 8.50 From the assessment; it is noted that the principal visual effects are most likely to arise from the tallest aspects of the ERF building which extend up to 42m above ground level (AGL). The flue stack, which extends to 85m in height, is clearly the tallest aspect of the development; however as it is relatively narrow it is unlikely to be as visually intrusive, particularly when taking into account its context. Lower level aspects of the development such as the gatehouse, substation and vehicular movements within the car park, manoeuvring area and access road are likely to be screened by the peripheral land forming and proposed planting scheme. It is envisaged that will provide visual mitigation and enhance the landscape value of the application site over time.
- 8.51 The LVIA submitted concludes that the potential visual impacts caused by the proposed development vary a great deal, but in no instance would it be deemed as significant or negatively adverse. The worst case visual impacts being recorded as minor to moderate for Viewpoints at Garden City, Mold Road (Wepre), Wepre Lane, Northop Hall, Weighbridge Road and Nessholt.
- 8.52 It should be noted, that there have been no objections to the proposal on the grounds of design, visual impact or landscape impact. Cheshire & Cheshire West Council has no landscape objections to the proposal. They note that although the development would be visible from some local residential properties and a number of PROW in the Burton and Puddington area, it would be seen amongst a backdrop of a range of other comparable industrial developments.
- 8.53 English Heritage stated that the development could, potentially have an impact upon a number of designated heritage assets and their

settings in the area around the site. CADW have not identified any scheduled ancient monuments, historic parks, gardens or landscapes that are likely to be affected by the proposal.

- 8.54 The Councils Conservation Officer commentated that the proposal would be unlikely to pose significant incremental visual impacts. This is due to the largely industrial nature of the surrounding area and the high quality industrial design and massing of the complex. However issues were raised in relation to the visual impact of the plume arising from the stack and possible effects of the site lighting scheme.
- 8.55 It is considered that the landscape assessment provides enough detail on each of the viewpoints from which the site will be seen to make a convincing case that the development would not unduly or unnecessarily harm local views. The development would be seen in the foreground of the existing industrial developments.
- 8.56 It should also be noted that the Gaz de France power station directly to the south of the site has been decommissioned and has by now been substantially removed. The replacement of one power station with another cannot be directly compared as they are not identical in size, massing or location. However it has to a certain degree lessened the magnitude of this proposal.
- 8.57 In response to English Heritage's consultation letter, it is not consider that the proposal will have a negative impact upon designated heritage assets over the border with the Promontory Fort at Burton Point being the closest noted within the response at a distance of 1.6km.
- In reference to the Councils Conservation Officer's reservations as to the proposed visual effects of the plume that may rise as a consequence of certain atmospheric conditions. It is acknowledged that stacks do in certain atmospheric conditions emit visible plume. However, the plume from UPM, TATA Steel, Deeside Powers Station are already a visible feature of the area. Therefore the plume from the stack would not be out of place in the already industrialised area and it is not consider that the failure to submit such a report would demonstrate any detrimental visual or landscape effects. As to concerns regarding lighting it is considered that this can be adequately addressed by way of condition requiring the submission of a lighting scheme to be agreed by the Waste Planning Authority to ensure that light pollution from the site is acceptable and kept to a minimum.
- 8.59 Although design is subjective. It is noted that a Design and Access Statement has been submitted in accordance with the Requirements of TAN 12, explaining how the objectives have been considered from the outset of the development process. As part of this process it is considered that the applicant has actively liaised with the local

planning authority and The Design Commission for Wales in producing a design that is both industrial and cotemporary with visual impact mitigated as far as possible.

- 8.60 It is considered reasonable that should planning permission be granted, standard planning conditions shall be imposed requiring the development to comply with the plans submitted.
- 8.61 It is considered that the Landscape and Visual Impact Assessment submitted by the applicant has demonstrated that the proposed development due to its location, scale, massing and design will not adversely impact the Urban landscape character area it is set or the character of the overall landscape. In consultation with the Conservation Officer it is considered that the proposal incorporates good design standards, it respects the scale of surrounding development, it creates a positive and attractive building alignment to the setting of the Deeside Industrial Park, its landscaping and proposed fencing is appropriate and the DAS accompanying the proposal gives design information commensurate with the scale and type of development proposed. It is also considered that the inclusion of a planning condition requiring an outdoor lighting scheme will restrict the associated lighting to the minimum necessary to ensure public safety, security and prevent light pollution. It is therefore considered that the proposal is in accordance with the provisions of policies GEN 1, D1, D2, D3, D4, L1, H5, WB2, EWP8 and EWP13 of the Flintshire Unitary Development Plan, together with the requirements of Article 13 of the Waste Framework Directive.

Contaminated Land and Geology

- 8.62 Given the extensive historical infilled ground and the previous industrial land use that has taken place on site there is potential for the site to be contaminated. Therefore a Land Quality assessment has been submitted in support of the application which identifies the baseline geology, soils and land quality at the site and also assesses the effects of the proposed development on the site's geological features and soil resource. It also assesses potential land contamination impacts and associated risks that may arise to human health and controlled waters.
- 8.63 The assessment states that the site is underlain by an extensive thickness of Made Ground comprising gravel, clinker, slag, timber, metal and sands (between 0.2 to 6 m thick) overlying Tidal Flat Deposits comprising clays, sands and silts to a depth of 30 m, which are underlain by bedrock geology comprising Triassic Kinnerton Sandstone Formation which is classified as a Principal Aquifer with Carboniferous Pennine Lower Coal Measures in the southern tip. A total of 35 soil samples were undertaken. The results recorded that 5 of the 10 samples of Made Ground were within inert waste acceptance thresholds and 24 of the 25 samples of the deeper sand Made Ground were within inert waste acceptance thresholds. Fewer

than 3 out of 17 samples exceeded water quality standards, suggesting no widespread consistent groundwater sources were present.

- 8.64 It is anticipated that the volume of ground disturbance as part of the construction phase is likely to be relatively moderate, over large areas, and involves disturbance of made ground that contains contaminants, so there is the potential for ground contamination to be encountered and mobilised around the application site and off-site. The construction of the waste bunker, will include shallow foundations, by driven / bored piles to encounter shallow contamination in the Ash Made Ground layer at depths of up to 1.6mbgl (metres below ground level).
- 8.65 The assessments undertaken concludes that the effects of the disturbance and potential removal and disposal of surface geology deposits (the Tidal Flat Deposits) off the site is not expected to be significant due to the fact that the majority of the site is underlain by extensive thickness of Made Ground.
- 8.66 Erosion of soils and surface geology resource is not expected to be significant from the disturbance and mobilisation of contamination around the site. This is to be addressed during construction as techniques would be applied as part of the CEMP (Construction Environmental Management Plan) to control and limit such effects to insignificant levels.
- 8.67 The environmental effects of potential contaminants being mobilised to controlled waters during construction works (in the absence of mitigation in the form of remediation, and other controls) is regarded as being not significant due to their localised presence at the site, the concentrations recorded, and the nature of the controlled water receptors.
- The assessment has identified potentially significant risk to human health during construction to workers, in the absence of mitigation from inorganic and organic contaminants including possible asbestos, in shallow Made Ground and this is to be addressed within the CEMP. The proposal does not involve operational activities that would disturb soils or near surface geology to the degree that are likely to result in significant effects on soil resource quality.
- 8.69 There is the potential for a long term improvement to the quality of the water environment. This is brought about partly by the proposed covering of relatively limited areas of Ash Made Ground with hardstandings and buildings. The proposed drainage design would reduce the infiltration of rainfall through the Ash Made Ground layer thereby reducing the amount of soil leachate impacting controlled waters. It is also noted that once operational the power station would likely to have a minimal effect on the soils, geology and contaminated

land at the site.

- 8.70 Having consulted upon contaminated land with the Public Protection Department they note that the report itself is factual and no information to explain which potential pollutant linkages have been investigated. Therefore should planning permission be forthcoming, conditions should be submitted in relation to a scheme to be submitted dealing with risks associated with contamination of the site that is to include a preliminary risk assessment, a site investigation scheme, an options appraisal and remediation strategy and a verification plan. Further conditions should also be imposed requiring a verification report demonstrating completion of the works set out in the remediation strategy. There are also conditions for the long term monitoring and maintenance of contamination on site, together with a standard condition relating to mitigation relating to not previously identified contaminants being found on site.
- 8.71 The Public Protection Department noted from the ground investigation report that a lot of boreholes have been drilled and installed at the site, and noted that the boreholes provide a direct pathway for contaminants and other substances to reach deeper strata, groundwater and uncontaminated features. It is recommended that a condition is imposed for them to be decommissioned in accordance current guidance and best practise.
- 8.72 It has also been suggested by NRW that a further condition should be imposed limiting piling or another foundation designs to parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater.
- 8.73 There have been no objections to the proposal on the grounds of contamination and the potential risk to the environment. Therefore, subject to the submission and approval of the requirements of NRW and the Public Health Department to deal with the risks of contamination it is considered that the proposal would comply with the provisions of Policies GEN1 and EWP14 of the Flintshire Unitary Development Plan.
- 8.74 There have been no objections to the proposal on the grounds of contamination and the potential risk to the environment. The suggested conditions submitted by NRW and the Public Health Department are considered appropriate to deal with the contamination which exists on the site so as ensure that no residual risk remains on site for future receptors and will also minimise as far as possible the off site disposal of contaminated waste material. Therefore it is considered that the proposal accords with the requirements of policies EWP14 Derelict and Contaminated Land and GEN 1 of the Flintshire Unitary Development Plan, together with the requirements of Article 13 of the Waste Framework Directive.

Transportation and Access

- 8.75 It should be noted that all wastes associated with the proposed development is to be transported initially to site by road, the proposal does include plans for the development of a rail siding should this be considered viable in future. The application is accompanied by an Environmental Statement that also includes a Transport Assessment (TA).
- 8.76 The site is accessed via the A548 Weighbridge Road, which links to the east with the A494(T)/A550, which in turn provides access to the strategic road network via the M56/M63 and the A55(T). To the west the A548 crosses the River Dee and routes north-west through Flint following the estuary coastline to Prestatyn, Rhyl and Abergele. The A55 follows a similar alignment inland which is considered a more principal route.
- 8.77 As demonstrated within the TA the application site has good access to the strategic road network via the access junction to Zone 4 of the Deeside Industrial Park. The access junction for Zone 4 of the Deeside Industrial Park adjoins the A548 via a four arm roundabout junction. The A548 is a dual carriageway with two lanes running in either direction. The road is subject to the national speed limit, is lit and has safety barriers throughout the central reservation and on sections of the outer verge. The A548 links to the east with the A494(T)/A550, which in turn provides access to the strategic road network via the M56/M63 and the A55(T). The site is approximately 7km to the west of the motorway network (M56). To the west the A548 crosses the River Dee, via the Flintshire Bridge, and routes northwest through Flint following the estuary coastline to Prestatyn, Rhyl and Abergele. The A55 North Wales Expressway follows a similar alignment inland which is considered a more principal route.
- 8.78 Permission is being sought to process up to 200,000tpa of residual waste. The development would mainly process wastes originating from the five local authorities making up the NWRWTP and also process Commercial and Industrial wastes. The proposal would also include an IBA recycling facility which would process up to 45,000tpa. The waste would be delivered to Parc Adfer either in bulk trailers from transfer stations located across the North Wales region, or directly delivered in refuse collection vehicles in the case of waste derived from Flintshire. Allied to this, small quantities of materials would need to be imported for the treatment of exhaust gases, whilst recycled IBA, metals and air pollution control residues would need to be exported.
- 8.79 If operated at the maximum throughput of 200,000tpa, the total number of one way HGV movements is estimated to increase to around 67 vehicles or 134 HGV movements daily. Taking into account the comings and goings of 37 employees working shift patterns the

proposed development is likely to generate up to 208 daily movements in total.

- Within the TA it is also noted that it is the intention of the operator to minimise transport impacts on the road network during morning and evening peak periods by scheduling the deliveries outside of these periods and spreading it across the day where practicable.
- 8.81 The proposal is to provide 44 car parking spaces, 4 for disabled and a coach parking space for visitors. Space has also been allocated for the parking of bicycles.
- As for the increase that will happen during the proposed construction period, the TA notes that this is currently unknown and a Construction Traffic Management Plan has not been submitted and is likely to depend on the successful contactors preferred construction methodology and techniques. However, it is anticipated that the level of HGV traffic generated would be within the daily fluctuation of operational site traffic, and also within the daily fluctuations of traffic volumes on the A548 Weighbridge Road. They also state that light vehicle movements during the construction phase are likely to be greater than during the operational phase, with up to 200 light vehicle movements expected per day with parking being provided on site to minimise disruption to the local highway network.
- 8.83 The TA submitted in support of this application concludes that the existing highway conditions and accident records have been assessed and the current highway layout is considered to be suitable for the purposes of the proposed development. The location of the site offers reasonable opportunities to access the site via public transport, foot and bicycle. In terms of impact on the strategic network, it is noted that the traffic associated with municipal household and Commercial and Industrial wastes is already on the wider and local network, this application will result in its redistribution. Junction capacity assessments have demonstrated that the proposed traffic will only have a minor impact on the operation on the local highway and is unlikely to be perceptible. The accident data demonstrates that there are no incident patterns within the study area attributed to highway layout which could potentially be exacerbated by the proposal. The proposed access arrangements are to be designed to a suitable standard.
- 8.84 It should be noted that objections have been received from residents, community councils, councillors and pressure groups in relation to the additional traffic this proposal is likely to generate. It is stated that the additional traffic generated by this development will create an increase in traffic on already congested roads. Particular reference has been made to the congestion that occurs on Aston Hill and the potential for this development to contribute further to it. Although Air Quality will be discussed in section 8.79 8.97 concern is raised as to

- the road traffic pollution that will be generated by this proposal, especially along the A55 and A494 interchange.
- 8.85 There is further concern that the applicant has not considered issues that may result in the inadvertent closure of the A55, such as the section at Rhuallt Hill during adverse weather conditions.
- 8.86 Concern has also been expressed that rail transport is not developed from the outset and given the development is for a period of 25 years; not developing it immediately may result in it being economically unviable.
- The Flintshire Highway Department has noted that the traffic 8.87 associated with the operation of the development is not considered to be excessive; however no quantification of construction traffic has been submitted as part of this application and the applicant has offered a construction traffic management plan to be submitted at a later date. The highway department has therefore suggested that should planning permission be forthcoming conditions requiring the submission of a construction traffic management plan and Full Travel Plan and Transport Implementation Strategy shall be submitted for the Authority's approval. Further conditions are also required for the submission of further details relating to the siting, layout, design and construction of the site access for the Waste Planning Authority's together with conditions relating to adequate visibility approval, splays and the prevention of surface water run off onto the highway.
- 8.88 No observations were received from the Authority's Rights of Way Officer as there are no affected public footpaths or bridleways in the vicinity. However the Highway Department has specifically requested that National Cycle Route 568 that runs along Weighbridge Road be considered by the applicant as part of the construction traffic management plan.
- 8.89 Welsh Government as highway authority for the A494 also requests the submission of a Construction Management Plan to be submitted for the Authority's approval prior to the commencement of works on site.
- 8.90 Cheshire and Cheshire West reviewed the proposal and considered that the HGV's and car related traffic associated with the development will be using major roads that fall outside CWaC's area and considers it will give rise to imperceptible effects on their areas network.
- 8.91 As noted above there have been objections that the proposal will rely on road based transportation methods rather than rail. It should be noted that this proposal has not disregarded the use of rail as a transport mode, indeed the development of a railway siding is to be considered as part of the proposal albeit it will not be developed initially.

- 8.92 Network Rail did not comment or suggest conditions in relation to the proposed development of a railway siding on site. However, it is considered that a condition should be applied for the submission of further details in relation to the on site design and construction work should planning permission be granted for the proposal.
- 8.93 With the site proposed to be served by rail, being well related to the major road network and offering reasonable opportunities to access the site via public transport, foot and bicycle this accords with the aims and guidance of Planning Policy Wales. As for an increase in pollution on the A55 and A494 interchange together with an increase in congestion on local roads. The TA and ES prepared by the applicant has been subject to consultation with the highway department, Welsh Government Highway Agency Department and they have no objections to the proposal subject to conditions. In relation to air quality, this is discussed at length within the next sections of this report, however the Environmental Health Department have not raised issues in relation to pollution at the A55 / A494 interchange as part of this consultation process.
- As for the concern expressed regarding contingency routes and the measures that should be undertaken if a major road is closed for whatever reason, this would be better addressed as part of the condition suggested by the Highway Department requiring the submission of a Travel Plan and Transport Implementation Strategy.
- 8.95 It is considered that the Transport Assessment submitted in support of the application demonstrates that the proposed development due to its location can adequately accommodate the traffic likely to be generated by the development without compromising public safety, health and local amenity. The proposed development of a railway siding acknowledges the need to encourage the transfer of freight away from road to rail so as to provide a cleaner, less energy dependant and safer means of transporting freight. The suggested conditions submitted by the Highways Department and the Trunk Road Agency will ensure safe vehicular access can be provided by the developer both to and from the main highway to avoid an unacceptable effect on the highway network. The requirement of a condition for the submission of a Travel Plan and Transport Implementation strategy during the construction and operation stage will ensure that the development acknowledges and promotes the ethos of sustainable transportation by encouraging the use of public transportation, cycleways and walking. It is therefore considered that the proposal complies with the provisions of Policies GEN1, STR 2, AC2, AC4, AC9, AC13, AC15, AC18 of the Flintshire Unitary Development Plan.

Air Quality and Health

- 8.96 Concerns have been raised by residents, Councillors, the Community Council, other businesses on the industrial estate and pressure groups during the consultation process as to the impacts on air quality and health this proposal may have locally.
- 8.97 The application is accompanied by an Environmental Statement that also includes a chapter on Air Quality. Within this section consideration is given to potential environmental effects the proposed ERF would have on this baseline environment; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual impacts after these measures have been employed.
- 8.98 As part of the air quality assessment, detailed dispersion modelling of combustion emissions from the ERF has been undertaken and a Human Health Risk Assessment (HHRA) which contains a broad assessment of general health concerns and key pathways during both the construction and operational stages of the proposed development has been submitted.
- 8.99 The Air Quality Assessment notes the proposed development may have potential implications for local air quality through emissions to atmosphere from construction activities, vehicle movement (during construction/operation), combustion pollutants emitted through the stack, fugitive odours and bio-aerosols should no mitigation measures be specified and adopted on site. Although the assessment has not considered the potential environmental effects associated with the decommissioning phase, the effects are likely to be similar to those arsing at the construction phase.
- 8.100 The study on potential construction dust impacts concluded that the risk of dust emissions from the excavation and construction process were low risk. By adopting appropriate mitigation measures for controlling dust emissions, it is considered that the impact would be 'negligible'. The potential effect on air quality due to the additional emissions from construction traffic would be below the Design Manual for Roads and Bridges (DMRB) criteria of 200 HGV movements per day and is therefore considered as being 'neutral' and would not require any further mitigation or assessments.
- 8.101 The assessment of odour and bio-aerosol impact concludes that the risk of odour and bio-aerosol generation from the waste material would be relatively low and the potential for emission would be mitigated by the enclosure of all operations and the extraction of air from the tipping hall. Allied to this, the buffer distance to residential receptor locations is over 1500m from the waste reception area; the proposal is considered to be sufficient to allow for the dispersion of any odour. There are no nearby quaternary industries which could be particularly sensitive to odours (such as vehicle sales showrooms).

Overall, the risk of impact is considered to be negligible and no further mitigation would be required.

- 8.102 As described in the Transport section, initially all operational imports and exports would be transported to the application site by road. As such the predicted trip generation is below the criteria defined (of 200 HGV's AADT) in the DMRB guidance. Therefore according to the DMRB guidance, impacts can be classified as 'neutral' and the significance of impacts due to additional emissions from operational traffic is classified as negligible.
- 8.103 In relation to impacts on humans and health, the pollutants of interest emitted from the ERF plant are primarily particulate matter, metals and dioxins. Unlike substances such as nitrogen dioxide, which have short term, acute effects on the respiratory system, particulate matter, dioxins/furans and metals have the potential to cause effects through long term, cumulative exposure. To ensure the optimum dispersion of emission from the stack, a stack height determination assessment was undertaken, indicating that a height of 85m achieves effective dispersion.
- 8.104 The findings of the HHRA are that the predicted risks and hazards as a consequence of emissions from the proposed ERF plant are all within limits for the protection of human health as defined by NRW. The standards set by NRW are considered robust on the basis of the worst case approach adopted in the characterisation of emissions, the safety factors incorporated and the hypothetical worst case exposure scenario considered in the assessment.
- 8.105 Natural Resources Wales have not made comment on the planning application in relation to air quality and emissions as this is something they will assess when considering the Environmental Permit application. Consequently an application for an Environmental Permit has been submitted and is under consideration by Natural Resources Wales. Should planning permission be granted, the facility would not be able to operate without an Environmental Permit being in place. The Environmental Permitting (England and Wales) Regulations 2010 states that the impact on human health is part of this process and subject to a permit being granted; the facility will be regulated in accordance with the conditions of the Permit in order to control emissions, in particular, by the Waste Incineration Directive (WID) to prevent pollution of air, soil, surface and groundwater.
- 8.106 Most of the objections to air quality associated with the proposal are on health-related grounds based on emissions to air of pollutants including dioxins, furans and metals from the ERF process. However the parameter of most concerns is fine particulate matter, particularly PM2.5, which can be a cause of adverse health effects. There has also been concern voiced as to the applicant's failure to comply with air quality standards within their existing plants in the USA.

- 8.107 Comments were received by CWaC Council in regards to air quality in which they query the dispersion modelling the applicant has used as it is based on Numerical Weather Prediction data rather than ratified dataset from Hawarden airport. As a result, the modelled pollution could be quite different to what it is in reality. They also state that NO2 (Nitrogen dioxide) and NOx (Nitrogen oxide) have potentially been underestimated as the predictions appear contrary to the Environment Agency's H1 guidance notes. CWaC also raise questions as to the use of Predicted Environmental Predictions rather than Process Contributions in considering cumulative impacts from other facilities in the area.
- Having consulted with the Public Protection Department; the officer notes that there are aspects of this development with the potential to give rise to pollutants which fall within Local Air Quality Management (LAQM). Local Authorities have been responsible for administrating this regime for a number of years. In that time, numerous Annual Reports and Updating and Screening Assessments have been undertaken by the Council which have demonstrated with the exception of a site at a road junction in Mold, that ambient air quality in Flintshire is generally very good. However it should also be noted, there are AQMA's along the CWaC boundary which is caused by elevated levels of NO2 from traffic and it is not considered that this proposal will contribute further to these AQMA's.
- 8.109 Flintshire Council have carried extensive long term NO2 diffusion tube monitoring in and around the Deeside Industrial Park (DIP), Connah's Quay, Shotton, Garden City, Sealand and other nearby residential communities for 20 years. Apart from the levels of NO2 from traffic using the A548 trunk road on Aston Hill and a congested road canyon effect in the centre of Hawarden there have not been any exceedances of the relevant standards which have required further assessments in the locality of this application (North Eastern Flintshire). The Council will continue to monitor all the current sites and the Authority have included 3 additional monitoring sites along the Sealand Road corridor up to the CWaC boundary.
- As part of the application, detailed atmospheric dispersion modelling has been submitted to determine potential process contributions to ground-level concentration of pollutants. This modelling has included the operation of the thermal waste treatment process associated with the development and potential combined effects from other nearby sources and processes. The site itself is within a major industrial zone and there are a number of large facilities nearby which has significant emission potential including two large gas fired power stations, Shotton Paper and TATA Steel. A third gas fired power station, Gaz de France has recently been decommissioned. In addition one of the two production lines at Shotton Paper has also been shut down which could potentially have an impact by reducing emissions from their

power plant. The Air Quality Objectives focus on those locations where members of the public are likely to be regularly present and are likely to be exposed for a period of time appropriate to the averaging period of the objective. The nearest potential residential receptors are over 1500metres away. Whereas, all air quality objectives would apply at a residential property, there are other locations where the shorter term objectives (15 and 60 minutes for SO2 and 60 minutes for NO2) would apply including retail premises where members of the public are likely to be outside and exposed over the reference period such as Car Showrooms. There are no such receptors nearby which could be considered for the shorter term objective.

- 8.111 In response to the observations raised by CWaC, it should be noted that dispersion modelling was carried out by the applicants consultants using Numerical Weather Prediction (NWP) data set for the years 2009 - 2013 rather than ratified hourly sequential data from the nearest meteorological station at Hawarden Airport. The reason given is that it "provides the advantage of a more site-focussed data set than would be the case for data collected by the Met Office in the UK". The notable variance are the wind roses which have different predominant wind directions. It may have been desirable if the Met Office data set from Hawarden had been used instead to support the application as this would have been more applicable and readably understandable. However, that being said, in light of the Public Protection Departments assessment and conclusions within the application the Authority is of the opinion that there is no need to request this Met data be used instead. Whilst there may well be some differences between the modelled and actual spacial distribution of worst-case predictions for potential pollutants, the fact that the impact will be negligible across the whole range indicates that it is of no consequence which weather data set has been applied.
- 8.112 With regard to the The Human Health Risk Assessment (HHRA) submitted by the applicant in support of the Environmental Permit application. The purpose of the assessment is to assess the expected emissions from the ERF and their potential effect on human health via direct contact - inhalation or by ingestion. In order that the assessment is robust it has been assumed using a realistic predicted 'worst case' scenario. This is assessed against The Industrial Emissions Directive (IED) and Waste Incineration Directive (WID) which is implemented through The Environmental Permitting (England Wales) Regulations 2012 (EPR 2012). The modelled concentrations for any of the predicted pollutants at the nearest potential receptors are all shown to be negligible. By using worst case scenario's for each of the HHRA criteria it has been demonstrated that the predicted hazard and risk for the HHRA as a consequence of emissions from the proposed ERF are all within the guidance values for the protection of human health as defined by Natural Resources Wales (NRW).

- The assessments and modelling submitted to support the planning 8.113 application have concluded that there would be no meaningful impacts from process emissions on sensitive human receptors. In relation to operation, the plant has been designed to meet with UK regulatory standards to safeguard public health and the wider environment, and this will be subject to the decision of NRW to issue an Environmental Permit. Although it is acknowledged from the response received from objectors that fine particular matter, particularly PM2.5, can be detrimental to human health. It is demonstrated that the predicted hazard and risk for the HHRA as a consequence of emissions from the proposed ERF are all within the guidance values for the protection of human health as defined by Natural Resources Wales (NRW). To this effect, no consultation responses were received from Public Health Wales or The Betsi Cadwaladr University Health Board in relation to this application.
- 8.114 Allied to the above; TAN21 states that planning authorities should take into account the ability of Environmental Permits to control the operations of waste facilities, and its interactions with the environment and should not duplicate control more appropriately imposed as part of the permit. The Public Protection Department do not consider it appropriate to impose conditions that would potentially conflict with conditions subsequently imposed under a Permit. As such the monitoring, mitigation and controls over all emissions to air including chemical pollutants, dust and odour associated with the operation of the site will be subject to the permitting process; and it should be clear that the facility could not operate without acquiring such a permit. Notwithstanding the above, it is unsubstantiated if all processes associated with the facility is covered by the permit, it is therefore considered that as a precautionary measure, should planning permission be granted the submission of an Operational Environmental Management Plan will be required to be submitted for approval by the Waste Planning Authority.
- 8.115 In response to comments made about the applicants environmental performances at their existing plants in the USA, the applicant has replied stating that the information quoted by objectors is inaccurate and misleading. Notwithstanding, it is considered that procedures differ between the USA and the UK, should planning permission be granted it would not be a personal one, but would run with the land and the competence of the facility rather than the operator will be subject to compliance with both a planning permission and environmental permit.
- 8.116 It is the Local Planning Authority's view that there is no evidence within the supporting information that the proposed development would give rise to adverse health impacts, or would materially affect wellbeing within the surrounding business and residential communities.

- 8.117 It is considered that the Air Quality Assessment and the Human Health Risk Assessment submitted in support of the application demonstrates that the development would not increase the risk of air pollution to the general public, it would not impose significant restrictions on the use or development of surrounding land and it would not result in the need for a higher standard of pollution control.
- 8.118 So as to ensure that the planning and pollution control regimes are implemented in respect of the construction and operation of the development, the Authority will pay regard to the expert advice of NRW in addition to the responsibility of the Council to monitor and enforce air quality standards, the abatement of dust and odour on site through relevant conditions in accordance with the requirements of Policies GEN1, STR1, EWP8 and EWP 12 of the Flintshire Unitary Development Plan and Article 13 of The Waste Framework Directive.

Noise

- 8.119 The application site is located in an already heavily industrialised area with several factories (such as UPM Shotton Paper Mill and TATA Steel) and industrial estates within Deeside Industrial Park; such industrial premises are located close to the application site and, in some cases, closer to nearby noise-sensitive receptors than Parc Adfer. There are also major transport routes in the vicinity of the application site including the A494 and A548 roads, together with a railway line crossing the River Dee at Hawarden Bridge and passing adjacent to the application site. It is therefore considered that the area around the application site is not particularly noise sensitive.
- As part of the Environmental Statement a Noise Assessment has been submitted of the baseline situation and the potential impact of the proposals. Noise levels during the operation of the proposed ERF have been calculated and assessed using the procedures of British Standard 4142:1997 (Method for rating industrial noise affecting mixed residential and industrial areas) for the fixed plant. The heavy goods vehicle noise has been calculated using the procedures of British Standard 5228-1:2009 (Code of practise for noise and vibration control on construction and open sites, Part 1: Noise) and has been assessed against the existing ambient noise levels.
- 8.121 As previously stated the proposed Parc Adfer ERF would be operational 24 hours per day, 7 days per week, it is the intention of the applicant not to restrict vehicle movements to a particular time of day however they do not intend having heavy goods vehicle or waste delivery movements on Bank/Public Holidays.
- 8.122 Environmental noise surveys were undertaken to capture the prevailing noise climate at accessible noise-sensitive locations nearest to the application site. The measurement locations chosen were considered representative of the most sensitive locations.

- 8.123 From the results of the surveys undertaken, the Public Protection is satisfied that subject to a condition restricting construction hours on site to 07.00 till 19.00 weekdays and 07.00 till 16.00 weekends and also a further condition not allowing noise levels to exceed 70 dB LAeq/1hr outside any nearby noise sensitive property during the construction phase, the proposal would have no material adverse noise effect on residential amenity in terms of noise pollution.
- 8.124 In relation to the overall operational impact of the installation the Public Protection Department are satisfied that the noise assessment has concluded that at all locations assessed the predicted noise rating level is below the prevailing background noise level. The cumulative assessment has shown that noise levels generated by the proposed Parc Adfer ERF could lead to a negligible increase of 0.1dB in the ambient noise levels at the nearest noise-sensitive properties to the application site. However, to safeguard the amenity of local residents it is reasonable to impose a condition requiring day time and night time noise limits to be agreed upon with the Waste Planning Authority for the operational activities of the facility.
- 8.125 Although no actual objections were received in relation to the proposed noise associated with the development concern has been voiced by Councillors and residential groups in which they required clarification of sound power characteristics and the algorithms employed to determine exterior noise levels within the noise assessment submitted by the applicant.
- As a result the Public Protection Department have investigated the noise software package "CadnaA" and conclude that the software is a reputable noise calculation, prediction and mapping software. The noise sources from the site appear to be realistic and some are taken directly from British Standards. The Public Protection Department have undertaken calculations based on those noise sources and have come to very similar results to what was calculated by the applicant using the CadnaA software and thus cannot dispute the predicted noise levels within the assessment.
- 8.127 Nuisance from noise is a common cause of complaint. It can have a detrimental impact on quality of life. However the noise assessment submitted in support of the application demonstrates that although noise from the process cannot be completely eliminated, the development will not give rise to noise pollution that will affect local amenity. Subject to conditions restricting noise levels at residential receptors the Council considers that the proposal accords with the requirements of policies GEN1, STR1, EWP8, EWP 12 and EWP13 of the Flintshire Unitary Development Plan together with the requirements of Article 13 of the Waste Framework Directive.

Community and Socio-economic Impacts

8.128 As previously stated, planning permission is being sought for an ERF

facility to divert residual wastes collected by Anglesey, Gwynedd, Conwy, Denbighshire and Flintshire Local Authorities who form the NWRWTP from landfill. This is to be done through Energy Recovery to secure the maximum value in the form of electricity, thermal energy and the production of recyclable materials over a period of 25 years.

- 8.129 The construction and commissioning period is forecast to be 38 months (of which the construction period is 32 months), and the facility design life or operational phase is 25 years. The plant is anticipated to operate 24/7 for 365 days of the year.
- 8.130 As part of the Environmental Statement, the applicant has undertaken a Socio Economic impact assessment to quantify the potential activity the proposal would deliver.
- 8.131 The assessment has indicated that the scale of development proposed is likely to generate a significant level of positive impacts during the construction phase, it is estimated that the development could provide employment opportunities for around 200 to 300 workers at any one time. With further disposable income in the area it is also considered that during the construction phase it will also generate indirect employment that will further bolster the local economy. Although temporary in nature, it is considered that the construction phase would provide a significant positive contribution to the local Flintshire economy.
- 8.132 During the operational phase, the ERF would provide direct employment for around 32 staff on a shift basis, with a further 3-5 staff employed by the IBA recycling operation. This has been calculated to amount to an increase of £1.63 million GVA (Gross Value Added) to the local Flintshire economy.
- 8.133 The facility would also provide opportunities for downstream employment through the requirement for a range of services such as haulage, engineering/ maintenance, landscape gardening/ maintenance, cleaning, catering. Together with induced employment through Parc Adfer employees and indirect employees spending their wages within the local economy. Overall, the socio-economic impact of the proposed development is anticipated to be of moderate positive significance to the Flintshire economy.
- 8.134 The assessment concludes that the project would contribute positively to the realisation of a number of strategic and policy objectives both locally and nationally. It will create green jobs including those at a higher skills level and will provide an opportunity for upskilling and innovation and therefore stimulating the low carbon economy and contributing to economic renewal.
- 8.135 Although not brushed upon within the socio economic assessment, it should be noted that the facility is for a Combined Heat and Power

plant. TAN 8 requires such a plant to be carefully sited adjacent to a suitably matched heat load. Although no heat user has been identified for this proposed development, the applicant has stated that there is interest from established businesses locally. Further to this the applicant has stated that heat can travel in the form of steam up to a distance of 2km, and low temperature heat at a distance of 5 km. Such a resource may be looked upon as a valuable incentive in attracting potential inward investment to the area.

- 8.136 During the course of this planning application, numerous statements of support were received from local businesses, educational institutions, business federations and the general public. Statements were given as to the sustainable and environmental credentials of recovering non-recyclable waste into energy and recyclable material. With further support given to the economic benefits that may arise as a consequence in the form of direct and indirect jobs, an increase in the local skill set, potential additional benefits to commerce, potential spin offs that may arise from such a development, an increase in the skill set of workers in the area.
- 8.137 During the course of this application the operator has noted their support in forming a Liaison Committee for the site, which would provide a formal forum for liaison with the local community which would seek to address concerns that the local community may have in relation to the proposal. The applicant would also ensure that the Community Council and local residents are able to make direct contact as and when required, so that more informal, day to day contact is possible for the local community. Should planning permission be granted, a condition would require a scheme setting out the terms of reference of a liaison committee.
- 8.138 Further to the above there is evidence within the supporting information that the proposed development could benefit the local economy and enhance the social wellbeing of the area. As such, the proposal complies with the Employment policies of the Flintshire Unitary Development Plan, the economic development aspirations of TAN 23 Economic Development and Planning Policy Wales, TAN 21 and Sector Plans.

Flooding and Drainage

- 8.139 From the current Development Advice Maps provided by Welsh Government under Planning Policy Wales Technical Advice Note 15 (TAN15) the application site appears to border the C1 Flood Zone as it runs along its western boundary along Weighbridge Road. It is unsubstantiated from correspondence with NRW if certain parts of the site are within this designation. However as this application is accompanied with an ES a Flood Consequence Assessment (FCA) has been submitted in support of the application.
- 8.140 The assessment assesses the risk of flooding either to or as a result

of the proposal together with any mitigation measures required to manage any flood risk.

- 8.141 The Assessment notes that much of the Deeside Industrial Park area has been raised to approximately 9m AOD and established flood defences, including bunds and pumping stations are in place to mitigate potential flood risk. The area proposed for development is raised above 10m AOD and is considered unaffected by flooding. The greater Deeside area benefits from the presence of tidal flood defences on the River Dee and on the drainage channels and Dee tributaries upstream, including headwalls and flapped outfalls. The application site is located within an area noted to benefit from the presence of these defences, but does not itself benefit directly due to its elevated position.
- 8.142 The assessment concludes that with reference to the Development Advice Maps and the flood maps, the application site is considered to lie in Flood Zone A, and is therefore considered to be at little or no risk of fluvial or coastal / tidal flooding. This has been confirmed by site specific flood data obtained from Natural Resources Wales.
- 8.143 It can be demonstrated that proposed land raising at the application site will ensure adequate freeboard is achieved above the tidal flood level for the Deeside area, with the site located a minimum of 2.78m above the 200 year flood level including allowance for climate change to 2111, and with a 3.25m freeboard above the 1000 year flood level.
- 8.144 A drainage assessment has been completed which considers the current surface water drainage regime at the application site and which specifies onsite surface water management systems, including flood attenuation and controlled discharge, to ensure that existing rates and volumes of runoff are maintained and to prevent increases in flood risk to third party property. These measures include SuDS (Sustainable urban Drainage Systems) wherever possible to promote the onsite management of surface water discharges at source and the enhancement of water quality. Climate change allowance has been accounted for within the drainage calculations at 20%, to 2086.
- 8.145 The potential impacts of the proposed development upon the water environment have been identified and assessed, and mitigation including water quality treatment and management measures, recommended ensuring that no detrimental impacts to the water quality of receptors arise from development proposals. Appropriate consent will be required for the construction of new outfalls and to ensure adequate standoff is incorporated from existing sewerage infrastructure located within the application site. The site will also be operated in accordance with procedures detailed in an Environmental Permit.
- 8.146 The FCA recommends that a programme for the ongoing

management and maintenance of the surface water management systems is detailed in the overarching Site Management Plan. This will ensure the continued effectiveness of the flood and surface water quality mitigation measures outlined within the assessment.

- 8.147 All aspects of the construction and operation of the facility would be in accordance with best practice guidance. It has been shown, that with the adoption of this guidance and the mitigation measures included in the site design, the residual risks to flooding and water quality can be suitably mitigated.
- 8.148 Measures are incorporated within the development for the re-use and recycling of surface water within plant processes. This will reduce both surface water discharges from the site and reliance on potable supply, with an overall benefit to the water environment.
- 8.149 It has been demonstrated that the development is unaffected by flooding and that design measures are included which appropriately mitigate potential impacts both to water quality and flood risk to third party property. It is therefore presented that development proposals meet the requirements of planning policy and guidance both at the National (TAN 15) and Local level.
- 8.150 In response to the Flood Consequence Assessment submitted, Natural Resources Wales originally objected to the proposal in their letter of the 27/10/14.
- 8.151 Although NRW were in overall agreement with the conclusion of the FCA that the main development area of the site (above 10 metres AOD) is considered low risk from fluvial and tidal flooding. Their original objection was based on the following:
 - a) Surface Water Run off It is an intention to direct all surface water runoff from the development site to an existing drainage channel on the north eastern boundary of the application site. The report indicates that the presence of an existing earth bund currently prevents surface water runoff from the current site entering the drain. The existing topographical plan suggests that large areas of the existing site do not drain naturally towards the north eastern section of the site, and could therefore pose an increased flood risk to other third parties in the receiving catchment.
 - b) Displacement of tidal flood water (under breach conditions) -They also noted that the northern tip of the site is to be re-profiled to allow for the construction of a surface water attenuation pond. Although the area is shown to lie outside of the existing day flood area, NRW are aware that this portion of the site could be subject to flooding, should there be failure of the flood defences located to the north west of the application

site, the site could be at flood risk under various scenarios, particularly when the effects of climate change are considered over the next 75 years.

- 8.152 Further information was submitted by the applicant on the 30/01/15 and the 27/02/15 to address the above objection. As a consequence NRW responded on the 4th March withdrawing their objection on surface water management as the runoff calculations provided do not reflect the wider inappropriate soil properties of the area, due to the historic importation of fill material. NRW also consider that a planning condition should be imposed to prevent flooding by ensuring the satisfactory storage of, and disposal of surface water from the site requiring the submission of a scheme for the implementation of a surface water regulation system.
- 8.153 In relation to the objection raised by NRW as to the Displacement of Tidal Water (Under Breach Conditions), it should be noted that this area of the application site lies outside the operational area of the development (buildings, hard standings, access) and is where the attenuation pond is to be located. The area also lies outside the existing day flood area, and the section of the site could be at flood risk considering the potential impact of climate change model predictions over the next 75 years. This being the case, and in order to address this objection, the applicant has submitted a new description to the application restricting the lifetime of the development up until the year 2050 which will coincide with the zero waste target date set by National Policy and also satisfying NRW so that the development is based on a 30 year lifetime so as to meet the requirements of the 75 year climate change model. To this effect NRW have removed their objection, but they would specify a planning condition requiring the cessation of operations by 2050 and the land subsequently restored so as to minimise the impact of flooding to the development and any third-party.
- 8.154 It should be noted that the ES addendum submitted as further information states that the lifetime of the proposal is up until the 31 December, 2050. However it also states that it is not currently clear what will happen at the end of the 25 year contract between the applicant and the North Wales Residual Waste Partnership and other possible scenarios are listed namely "agree between the authorities to decommission the plant, allow Flintshire to retain the plant, tender for a new contract for operation of the plant." The end date of the contract will be before the 2050 end date of the temporary planning permission and therefore assuming a 25 year contract commencing in 2018, upon completion of the contract in 2043, there will be a few years where the operation of the plant may rest with other parties. Irrespective of the statement in the addendum, this application is only subject to a temporary period that will require the facility to cease operations by 2050 notwithstanding contracts and agreements made outside the planning process.

- 8.155 Any planning permission that is issued for this development will be temporary and will expire in 2050. In the event that circumstances change and the facility is still required beyond this date, a fresh planning application will have to be made for the continuation of the site and would need to be supported by the relevant flood risk data and assessed against the flood and waste management policies in effect at that time. In order meet the concerns set out by NRW and to meet the criteria set out in TAN 15, a pre-commencement condition will be imposed requiring submission of and approval in writing of a decommissioning scheme to include removal of all buildings from site and a return of ground levels to current levels. Under contractual arrangements the land and assets on it revert to the Council on termination of the contract so that the responsibility decommissioning will legally lie with the Council.
- 8.156 Although the proposed development is within an area that may be at long term risk of flooding, it is considered that the mitigation and alleviation proposed within the flood consequence assessment submitted, together with the applicant's willingness to limit the lifetime of the development demonstrates compliance with the policy guidance. Together with further conditions requiring surface water management and the restoration of the site to pre development levels by 2050 this can effectively manage flooding, would not increase the risk of flooding elsewhere and would not have any adverse effects on the integrity of tidal and fluvial flood defences. This therefore accords with policy GEN1 and EWP17 of the Flintshire Unitary Development Plan, Article 13 of The Waste Framework Directive and TAN 15.

9.00 CONCLUSION

- 9.01 The proposal involves the sustainable management of residual waste through an energy recovery process.
- 9.02 Within this planning report, it is demonstrated that the development is located within a site allocated for employment and is within the area of search for new waste management facilities. It is further demonstrated that the proposal will not have an adverse effect upon designated nature conservation sites or upon habitats and species generally. It is considered that the proposal can be developed and operated to minimise risks to ground and groundwater contamination. The highway network without it being harmful to highway safety or have a significant effect upon traffic locally and the proposal may utilise multi modal transport through the use of rail at a later date. Through the dual control of the planning process and environmental permitting regime it is considered that air quality and noise will not affect the amenity of local residents or compromise upon health. In relation to flooding, although concern and an objection was initially raised by NRW as to the potential of flooding based on 75 year model predictions of the northern section of the site and concerns regarding

	the surface water run off on site; this has been addressed by limiting the life of the development in accordance with Zero Waste Targets set by the Welsh Government for year 2050.
9.03	It is therefore considered that this proposal accords with planning policies adopted within The Flintshire Unitary Development Plan, supplemented by Planning Policy Wales, The Waste Framework Directive and other National and European policies, targets and guidance in relation to the sustainable management of waste and low carbon energy generation.
9.04	In considering this application the Council has taken into account all the environmental information and matters that are material to the determination of this application, as set out in the Application, Supporting Statement, Environmental Statement, Technical Appendices, Further Information and Addendums.
9.05	In considering this planning application the Council has acted in accordance with the Human Rights Act 1998 including Article 8 of the Convention and in a manner which is necessary in a democratic society in furtherance of the legitimate aims of the Act and the Convention.
9.06	Subject to the inclusion of the above planning conditions that are considered to be necessary, fulfil a planning purpose and fairly and reasonably relate to the development it is recommended that planning permission be granted.
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