



LOSTOCK

SUSTAINABLE ENERGY PLANT

PROPOSAL TO INCREASE THE WASTE TONNAGE THROUGHPUT OF THE LOSTOCK SUSTAINABLE ENERGY PLANT (LSEP), LOSTOCK WORKS, LOSTOCK GRALAM, NORTHWICH

ENVIRONMENTAL IMPACT ASSESSMENT REPORT VOLUME 4: NON-TECHNICAL SUMMARY

This Document has been prepared in support of the application to vary the existing consent under Section 36C of the Electricity Act 1989 and deemed planning permission direction under Section 90(2ZA) of the Town and Country Planning Act 1990 for the Lostock Sustainable Energy Plant (LSEP). The application is for an variation to the consented waste fuel throughput of the LSEP, as well as to the consented delivery movements and delivery hours. The application and associated documentation have been produced and co-ordinated by AXIS with technical inputs from:

- AXIS – Traffic and Transportation, Landscape and Visual, Socio-Economics;
- Fichtner Consulting Engineers Ltd – Air Quality, Odours and Human Health, Climate Change;
- Argus Ecology – Ecological Interpretation of Air Quality Assessment; and
- NVC – Noise and Vibration.

October 2021



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FOREWORD

This Environmental Impact Assessment Report is submitted in support of an application made by Lostock Sustainable Energy Plant Limited to vary their existing consent for the Lostock Sustainable Energy Plant at Lostock Works, Northwich.

The Environmental Impact Assessment Report has been prepared in accordance with the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2017 and comprises the following documents:

- **The Environmental Impact Assessment Report (Main Report) (Volume 1)**, which contains the detailed description of the proposal; the likely significant environmental impacts of the proposal; and details of any proposed mitigation measures required which would alleviate, compensate for, or remove adverse impacts identified in the study. Volume 1 also includes a summary of the overall likely significant environmental impacts of the proposal.
- **Illustrative Figures (Volume 2)**, which contains all relevant diagrams and illustrative figures.
- **Technical Appendices (Volume 3)**, which include details of the methodology and information used in the assessment, detailed technical schedules and, where appropriate, raw data.
- **This Non-Technical Summary (Volume 4)**, contains a summary of the Environmental Impact Assessment Report, expressed in non-technical language.

All of the application documentation, including the Environmental Impact Assessment Report, can be downloaded free of charge from the project web site. Hard copies of the Environmental Impact Assessment Report, as a four Volume set, are available at a cost of £300 by writing to AXIS, Camellia House, Water Lane, Wilmslow, Cheshire, SK9 5BB. Alternatively, the Non-Technical Summary can be purchased on its own from the same point of contact for £15, with the entire Environmental Impact Assessment Report available for purchase on a CD for £15.

1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

- 1.1.1 This Non-Technical Summary of the Environmental Impact Assessment Report is submitted in support of the application made by Lostock Sustainable Energy Plant Limited to vary their existing Section 36 ('s.36') consent and deemed planning permission ('DPP') for the Lostock Sustainable Energy Plant ('the LSEP') at Lostock Works, Northwich ('the LSEP site' – see figure NTS 1.1). The variation is being sought to allow an increase in waste (fuel) to be received at the facility, as well as an increase to the delivery vehicle movements and delivery hours.
- 1.1.2 The application is being made under Section 36C of the Electricity Act 1989 and Section 90 (2ZA) of the Town and Country Planning Act 1990.
- 1.1.3 This document summarises the findings of the Environmental Impact Assessment undertaken for the proposed amendments (which is referred to as 'the Proposal') in non-technical language.
- 1.1.4 As set out in detail within the Supporting Statement submitted with the application, the LSEP benefits from an existing s.36 consent and DPP, granted on 2nd October 2012, albeit for a different waste fuel throughput which consent is now being sought.
- 1.1.5 A variation to the s.36 consent and DPP was granted by the Department for Business, Energy and Industrial Strategy ('BEIS') on 10th July 2019. The variation increased the approved power output of the LSEP from up to 60Mwe to up to 90MWw. This represents the existing consent for the facility and is hereafter referred to as the 's.36 variation consent'.
- 1.1.6 The original application for the LSEP included a full Environmental Statement ('ES') which is referred to here as the May 2011 ES. A scoping exercise was undertaken for the Environmental Impact Assessment Report to understand what environmental topics the Proposal would have an impact on and therefore which topics needed to be re-assessed from the May 2011 ES work. Many topics were 'scoped out' of the assessment at this early stage (i.e. they were deemed

unnecessary to assess) due to the limited impacts which the Proposal was deemed to have on the environment. For example, ground conditions and flood risk were not re-assessed as the Proposal will not change the design or layout of the consented LSEP. Essentially, it would purely be an academic exercise to re-assess these topics as the Proposal will have no impact on them.

1.1.7 Environmental topics which the Proposal has been considered to have an impact on, and thus requiring re-assessment, have been done so in light of the current environmental conditions.

1.1.8 The Environmental Impact Assessment Report has been prepared as a standalone document in accordance with the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2017. It assesses the likely significant effects of the LSEP with the proposed amendments, on the relevant environmental topics and compares the effects to those that would arise from the scheme approved under the s.36 variation consent.

1.2 The Site and Its Context

1.2.1 The LSEP site is located within the wider Tata Chemicals Europe (formerly Brunner Mond) Lostock Works site which itself is located near Lostock Gralam, approximately 2km to the east of the centre of Northwich within the administrative area of Cheshire West and Chester.

1.2.2 The Lostock Works site is occupied by a number of independent businesses. Tata Chemicals Europe's operations form the main use of the site as the UK's only producer of soda ash (sodium carbonate) and related products. These uses occupy a total of 68 hectares, including a significant area of waste treatment lagoons. A number of other companies producing chemical and chemical related products are also clustered within the Lostock Works site. The Lostock Works site is overwhelmingly characterised / dominated by very large scale, heavy industrial uses.

1.2.3 The Lostock Works site is served by its own rail siding which extends into the LSEP site, and which branches off the Manchester to Chester main line. The Trent and Mersey Canal also cuts through the Lostock Works site in a north / south direction.

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- 1.2.4 Access to / from the Lostock Works site is gained via a dedicated junction off the A530 Griffiths Road. To the south of the Lostock Works site entrance, the A530 connects to the A556 dual-carriageway, which links to the M6 motorway at junction 19, circa 8km to the north east. To the north of the Lostock Works site entrance, the A530 connects to the A559 Manchester Road. However, HGVs cannot access Manchester Road from the A530 due to an intervening low railway bridge.
- 1.2.5 The LSEP site comprises an area of circa 10.3 hectares centred on land at the former Lostock Power Station site. This coal-fired power station ceased operation in 2000. Enabling works are currently being carried out on the LSEP site, which includes demolition of the former power station. Most of this is now complete and full commencement of the construction phase of the LSEP development occurred in March 2019.

2.0 ALTERNATIVES CONSIDERED

- 2.1.1 As previously mentioned, the proposed LSEP amendments will not change the design, layout or location of the facility, which is currently under construction in accordance with the s.36 variation consent. The decision has been made to seek to utilise the full treatment capacity of the plant and therefore no alternatives have fallen to be considered (reasonable or otherwise).
- 2.1.2 Accordingly, the Environmental Impact Assessment Report does not consider or report on any alternatives.

3.0 SCHEME DESCRIPTION

3.1 The Consented Facility

3.1.1 The LSEP facility, as consented, comprises a conventional, twin line, moving grate combustion plant, for the recovery of energy from residual waste. Residual waste is the non-hazardous waste material that cannot be re-used or recycled and therefore must either be disposed of in landfill or used for energy recovery.

3.1.2 The LSEP facility is currently under construction in accordance with the s.36 variation consent.

3.2 The Proposal

3.2.1 As previously explained, the proposed amendments sought to the LSEP scheme will not change the consented design of the facility and will only have an impact on its operation. The proposed amendments are set out below.

Waste Fuel Throughput

3.2.2 The consented LSEP facility is based on an anticipated waste fuel throughput of circa 600,000 tonnes per annum (tpa). It is proposed to increase this by 128,000 tpa, to circa 728,000 tpa overall.

HGV Movements

3.2.3 In order to facilitate the proposed increase in waste fuel throughput, it is also proposed to increase the HGV movements to / from the LSEP site from 131 HGV arrivals (262 round trips) per day; to up to 217 HGV arrivals (434 round trips) per day.

Delivery Hours

3.2.4 To allow a greater degree of flexibility in the delivery of waste fuel to the LSEP facility, it is proposed to extend the HGV delivery hours. This is currently consented as 07:00 - 19:00 on weekdays and 07:00 - 13:00 on Saturdays, with no deliveries allowed on Sundays or on Bank Holidays. The Proposal will

change the weekday delivery hours to 07:00 - 23:00. There will be no change to delivery hours on other days. This extension of delivery hours (and thus, giving the ability to spread imports and exports over increased daily hours) will reduce the road impacts on peak traffic periods.

3.2.5 A comparison of the currently consented LSEP scheme and the scheme as now proposed is set out in Table 1.1 below.

Table 1.1: Comparison of LSEP scheme now proposed against consented scheme

Description of item / feature	Scheme approved under the 2019 s.36 variation consent	LSEP scheme as now proposed
Waste Fuel Throughput capacity	600,000 tpa	728,000 tpa
Daily HGV movements to / from the facility	262 round trips (131 in, 131 out)	434 round trips (217 in, 217 out)
HGV delivery hours	Weekdays: 07:00 to 19:00 Saturdays: 07:00 to 13:00 Sundays / Bank Holidays: no deliveries	Weekdays: 07:00 to 23:00 Saturdays: 07:00 to 13:00 Sundays / Bank Holidays: no deliveries
Consented maximum generating capacity	90 MW	90 MW
Gross electricity generation	67.3 MW	76.9 MW
Net electricity generation exported to grid	58.5 MW	69.9 MW
LSEP / Application site area	10.3 hectares	10.3 hectares
Use of facility	Residual waste treatment with energy recovery	Residual waste treatment with energy recovery
Technology	Twin line, moving grate combustion	Twin line, moving grate combustion
Pre-treatment requirements	Not required – all residual waste will be pre-treated	Not required – all residual waste will be pre-treated
Estimated capital cost	£480 million	£480 million

4.0 SUMMARY OF EFFECTS

4.1 Introduction

- 4.1.1 The likely significant environmental effects of the Proposal are fully described within the Main Report of the Environmental Impact Assessment Report (Volume 1), with a brief summary of the overall findings detailed below in non-technical language.

4.2 Cumulative Impacts

- 4.2.1 Cumulative effects of the Proposal with other major schemes committed to planning in the local area were considered. As there are only a few environmental topics that could potentially be affected by cumulative effects, this was limited to Traffic and Transportation and Air Quality, although some other Chapters of the Main Report have commented on these effects for completeness. All technical assessments found there to be no significant cumulative effects together with the Proposal.

4.3 Traffic and Transportation

- 4.3.1 Chapter 4.0 of the EIAR, together with the supporting Transport Assessment and figures, has been prepared to consider the highways and transport related environmental impact of the LSEP scheme with the Proposal.
- 4.3.1 Changes in traffic flows that will result from the Proposal during the operational phase of the LSEP have been assessed against anticipated future road conditions (i.e. the vehicle composition on the roads).
- 4.3.2 As there will be no change to the design or layout of the consented LSEP scheme, construction phase traffic flows have not been re-assessed as these will remain unchanged. The assessment found that there will be a negligible or minor level of effect on all local road network link scenarios. These effects have ultimately been considered as not significant.
- 4.3.3 The Chapter concludes that the Proposal will not result in any significant impacts on operational or environmental conditions over the local transport

network and there is no requirement for further off-site transport improvement / mitigation works.

4.4 Air Quality, Odours and Human Health

- 4.4.1 Chapter 5.0 of the EIAR, together with the supporting figures and appendices, sets out an assessment of the likely significant effects of the Proposal upon air quality, including dust, human health and odour.
- 4.4.2 The impacts from the operational phase for both vehicle movements and the LSEP facility process emissions have been assessed. Impacts have been calculated for the total waste throughput of the scheme as now proposed (i.e. 728,000 tpa) rather than for only the proposed additional waste throughput (i.e. 128,000 tpa). In addition, a Human Health Risk Assessment has been carried out to determine the impact of pollutants on human health. These assessments conclude that the significance of the impact of process emissions and road vehicles from the LSEP scheme (as now proposed with 728,000 tpa of waste throughput) will be negligible and not significant on human health.
- 4.4.1 The impacts from emissions during the operational phase of the LSEP scheme, both from road generated emissions (i.e. from HGV movements) and process emissions of the facility itself, have also been determined at important ecological areas. The results have been compared to the 'Critical Levels' and 'Critical Loads' for the protection of local ecology. Critical Levels are the concentrations of pollutants in the atmosphere above which direct adverse effects on receptors (such as humans, plants, ecosystems) may occur. The Critical Load is the quantitative estimate of an exposure to one or more pollutants, below which significant harmful effects on specified sensitive elements of the environment are not expected to occur.
- 4.4.2 The assessment considered the significance of effects in the context of predicted changes to the LSEP scheme with the Proposal compared to the LSEP scheme as consented (essentially a 'with the Proposal' and 'without the Proposal'). In conclusion, the assessment found there to be no significant changes to the previously assessed conditions as a consequence of the Proposal.

4.4.3 Furthermore, no likely significant effects are predicted for European or Ramsar Sites, and no significant harm is predicted for Sites of Special Scientific Interest or locally designated sites.

4.4.4 The impacts of dust and odour from the operational phase activities have been determined in accordance with appropriate guidance. The results show that the measures imbedded in the consented design of the LSEP scheme are such to adequately control fugitive releases of dust and odour. The residual impacts of dust and odour from the LSEP scheme with the Proposal have been found to be negligible. In conclusion, dust / odours impacts will not be significant.

4.5 Noise and Vibration

4.5.1 Chapter 6.0 of the EIAR, together with the supporting appendix, sets out an assessment of the likely significant effects of the Proposal upon operational noise and vibration.

4.5.2 The assessment looked at the noise impacts on existing residential areas from the proposed increase in vehicle movements on local roads during the daytime operation of the LSEP facility. The findings indicate that there will be no significant change in noise levels and that the effects will not be significant.

4.5.3 In respect of the proposed additional vehicle movements within the LSEP site, the assessment showed no significant increase in noise levels at nearest sensitive receptors during the daytime operational period.

4.5.4 The assessment also looked at the noise impacts of the facility itself with the proposed increase in waste fuel being used. The assessment concludes that operational noise impacts from the facility (with the Proposal) are considered to represent a neutral level of effect and are considered as not significant.

4.5.5 Overall, the site generated noise levels will remain within the permissible noise limits of the existing consent for the LSEP scheme.

4.5.6 In relation to the increase in residual noise levels at receptors, the assessment results showed that there will be no significant change in noise level, which indicates a negligible magnitude impact. The predicted level of effect that will

be experienced by residential receptors is considered to be neutral and not significant.

- 4.5.7 In conclusion, the assessment in Chapter 6.0 shows that no significant noise impacts have been identified in relation to the operation of the LSEP scheme with the Proposal.

4.6 Landscape and Visual Effects

- 4.6.1 The Proposal will not change any physical features of the consented LSEP facility, which is currently under construction. The only Landscape and visual impacts associated with the Proposal are those associated with the emissions plume from the stack of the facility (i.e. the flow of water vapour / smoke released into the air). Accordingly, EIAR Chapter 7.0 only assessed the visual effects of the emissions plume from the LSEP with the Proposal (referred to as the 'Proposal Plume') against the plume of the LSEP as consented (referred to as the 'Consented Plume').

- 4.6.2 The landscape and visual effects of the Proposal Plume were found to not differ materially from those of the Consented Plume. Although the Proposal Plume was found to be more frequently visible than the Consented Plume, when visible it will typically be short in length.

- 4.6.3 The plume assessment concluded that the more frequent presence of the Proposal Plume will have little appreciable influence upon the views available due to the context of the industrialised area which the LSEP site sits within. This industrial area includes the consented LSEP and existing large scale industrial structures at Lostock Works.

4.7 Socio-Economics

- 4.7.1 Chapter 8.0 of the EIAR, together with the supporting figure, considers the likely effects of the Proposal with regards to socio-economic matters. The effects of the Proposal on both the construction and operational phases of the LSEP were assessed as the original scoping exercise included both.

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- 4.7.2 The assessment identified that the consented LSEP scheme will have a beneficial effect on construction employment within the Study Area and that, as the Proposal will not affect the construction of the LSEP, these benefits will not change through the proposed amendments.
- 4.7.3 Notwithstanding this, the Chapter notes that the LSEP scheme will have a clear positive influence upon the continued viability of a range of contractor companies and their employees, as well of other businesses forming part of the supply chain. As such, there may be significant effects for specific businesses, and indeed for individuals employed in construction. This will be of general benefit to the wider economy in terms of retention and possible upgrading of skilled workers and in terms of the viability of construction sector businesses. Construction is a sector that is dependent upon the availability of continued opportunities to undertake built development, and the assessment states that the LSEP scheme with the Proposal will provide such an opportunity.
- 4.7.4 The Chapter concludes that the LSEP scheme with the Proposal will have potential benefits in reducing the above average unemployment levels locally, particularly as a range of different job types, at different skill levels, will be provided. When considered in the context of the wider Study Area economy, the assessment concludes that there will be major beneficial and significant effects.

4.8 Climate Change

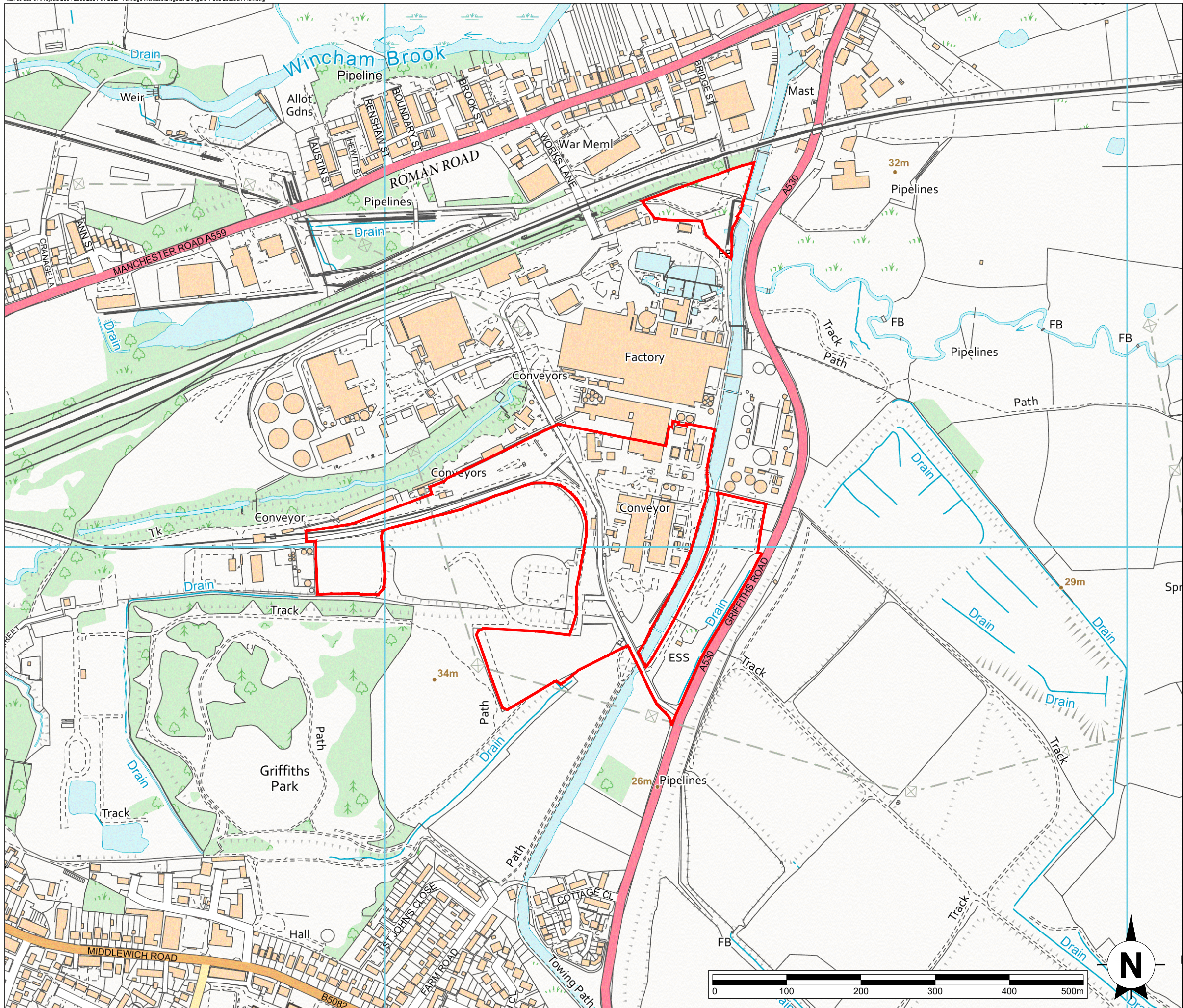
- 4.8.1 Chapter 9.0, together with the supporting figures and appendices, sets out the impacts of the LSEP scheme (accounting for the amendments now proposed) on climate with reference to greenhouse gas (GHG) emissions and the vulnerability of the project to climate change.
- 4.8.2 The carbon benefits of both the LSEP scheme as currently consented and for the LSEP scheme with the Proposal were assessed to allow a comparison. The 'baseline alternative' for the assessment was taken as disposal of the waste in landfill. In other words, the assessment compared the carbon benefits of using the 128,000 tpa of waste for energy recovery in the LSEP against disposing the same volume of waste in landfill.

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- 4.8.3 The assessment found that the consented LSEP scheme will deliver a net carbon benefit over its lifespan (of 25 years) over disposal of the equivalent waste in landfill. The assessment also found that these benefits will be significantly increased with the proposed extra 128,000 tpa of waste throughput.
- 4.8.4 The Consented Development will provide energy security for local electricity users (such as homes and businesses) to deal with shortages / outages. The Proposal will serve to provide extra security due to the additional electricity being generated by the LSEP.
- 4.8.5 The Chapter identifies that the measures to avoid, prevent, reduce or offset any significant adverse effects on climate change and the vulnerability of the LSEP scheme have already been included in the consented design of the LSEP, and that these will not be altered by the Proposal.
- 4.8.6 The Chapter concludes that the LSEP is considered to be resilient to the effects of climate change and the Proposal will deliver further net carbon benefits to those of the consented LSEP scheme.

4.9 Conclusion

- 4.9.1 The EIAR has assessed and evaluated all potential significant, direct, indirect, cumulative and in-combination environmental effects of the Proposal. Where adverse effects have been identified, measures to prevent, reduce, and if appropriate offset these have been described.
- 4.9.2 The assessment has concluded that the LSEP scheme with the amendments now proposed will not give rise to any significant adverse residual environmental effects.

Figures



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Site Boundary

Lostock Sustainable Energy Plant

Figure 1

Site Location Plan

Scale
1:5,000@A3

Date
March 2021