

Medworth Energy from Waste Combined Heat and Power Facility

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Environmental Statement Appendix 16A: Summary of Consultation Responses

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Appendix 16A PINS and Key Stakeholder Consultation Response Summaries



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1. Scoping Opinion responses

16.2.1 An overview of the main scoping issues raised and responses in relation to Health are given in **Table 16A.1 Summary of EIA Scoping Opinion responses for health** below. This has been updated with minor changes to the text presented in the PEIR to clarify previous responses and reference other documents, including relevant chapters of the ES.

Table 16A-1 Summary of EIA Scoping Opinion responses for health

Consultee	Issue raised	Response
The Planning Inspectorate	Paragraph 3.3.15 of the Scoping Opinion, under the topic 'Risks of Major Accidents and/or Disasters' states that the assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage, or the environment. Measures to be employed to prevent significant effects should be presented in the ES.	Significant effects resulting from risks to human health are considered in Chapter 16: Health (Volume 6.2) , which also draws on relevant topic-specific chapters of the ES.
Cambridgeshire County Council	CCC references health under several environmental topics within its response to the Scoping Report. Under the topic of Air Quality, it includes a recommendation that informal and formal consultation in respect of health impacts includes the participation of Public Health England.	Public Health England were consulted on the Scoping Report. Further consultation on the consideration of health in the ES was undertaken with PHE and other Stakeholders, as outlined in Section 2 of this Appendix.
Cambridgeshire County Council	CCC welcomes the Applicant's proposal to include consideration of human health impacts within the socio-economic assessment and supports the methodology proposed. However, CCC refers to Fenland Local Plan Requirement Policy LP2, which requires the preparation of a Health Impact Assessment (HIA) as good practice (accepting it is not a statutory requirement). Additional reference is made to the Cambridgeshire and Peterborough Waste Local Plan proposed submission publication draft November 2019. Policy 1 of this document states that development should consider any significant impacts on human health and	Individual topic chapters consider human health as a specific Receptor within their remit, where relevant and where it cannot be scoped out from assessment. Relevant chapters include Chapter 6: Traffic and Transport, Chapter 7: Noise and Vibration, Chapter 8: Air Quality, Chapter 9: Landscape and Visual, Chapter 15: Socio-economics (all Volume 6.2) . In addition, Chapter 17: Major Accidents and Disasters (Volume 6.2) provides more detail in relation to embedded environmental measures and comments on the assessment used for scoping. It includes consideration of occupational health. The role of the Human Health ES chapter is to bring together the individual



Consultee	Issue raised	Response
	<p>wellbeing. Policy 18 ‘Amenity considerations’ states that there must not be unacceptable adverse impacts on amenity, including a risk of harm to human health or safety. CCC recognises that some of the environmental impacts to human health impacts may be considered as part of the EIA/ES. However, wellbeing and mental health issues are less likely to feature such that it calls for a HIA commensurate with the scale of the application. Recognising that EIA/HIA impacts are very similar; its preferred option is to produce a combined HIA/EIA/ES integrated assessment. It notes that if documents are to be separate, then clear cross-referencing is required.</p> <p>CCC indicates that the Applicant should be encouraged to discuss the HIA scoping with the public health teams at CCC and Norfolk County Council prior to submission.</p>	<p>assessments within the relevant ES chapters to assess the effects upon human health within the Study Area (which is discussed in Chapter 16: Health, Volume 6.2) and include consideration of measures to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment.</p> <p>At the Scoping stage, the Applicant intended to consider effects under the broader banner of health, including health facilities within the Socio-Economic ES Chapter, it is now considered that these are better presented within the Health Chapter referred to above. This chapter also includes consideration of the effects upon mental health and wellbeing (in response to guidance received during the scoping process). Further consultation on the consideration of health in the PEIR was undertaken with PHE and other Stakeholders, outlined in Section 2 of this Appendix.</p>
<p>Cambridgeshire County Council</p>	<p>CCC refers to Health in Environmental Impact Assessment - A Primer for a Proportionate Approach (IEMA 2017) which outlines five key principles that should underpin the coverage of population and human health within an EIA.</p> <p>CCC commented that the summary of data sources in paragraph 14.3.4 of the Scoping Report should also include a reference to local Joint Strategic Needs Assessments (JSNA), in particular the JSNA core data set and the Transport and Health JSNA. The data contained in these JSNA should form part of the baseline evidence base on human health to supplement health data already proposed as part of the EIA/ES.</p>	<p>Consideration has been given to the IEMA 2017 Guidance in Chapter 16: Health (Volume 6.2).</p> <p>The JSNAs have been included in the baseline set out in Chapter 16 (Section 16.5) (Volume 6.2).</p>
<p>Cambridgeshire County Council</p>	<p>In conclusion, CCC supports the Applicant’s proposed scope and method but considers that the assessment should include an assessment of the impact on mental health as well</p>	<p>Mental wellbeing has been included in Chapter 16: Health (Volume 6.2).</p>



Consultee	Issue raised	Response
	<p>as physical health during construction and operation. This should include consideration of the possible impacts on mental health of local residents and any additional pressure this may place on local primary and community health care services.</p>	
Norfolk County Council	<p>NCC recommended that the Applicant completes a full HIA as part of the ES to include any potential impact upon physical and mental health should be assessed for its impact on health inequalities.</p>	<p>Further consultation was undertaken on the assessment of potential impacts on human health and it was agreed with key Stakeholders that the ES should include a chapter on health, rather than rely upon a separate HIA.</p>
Borough of Kings Lynn & West Norfolk	<p>KLWN referenced human health in the context of Air Quality. The Council requested that a Human Health Risk Assessment (HHRA) be undertaken to assess the impact on receptors to include land and farm workers.</p>	<p>A HHRA has been undertaken for Chapter 8 Air Quality (Volume 6.2), the HHRA is Appendix 8B Annex G (Volume 6.4). Any findings of significance reported within the air quality assessment have been carried through to Chapter 16: Health (Volume 6.2).</p>
Public Health England	<p>PHE called for a proportionate assessment focused on the Proposed Development's significant effects. To ensure that public health is adequately considered it recommended that issues potentially affecting human health, e.g., air quality, contaminated land, etc. are covered individually and summarised into a specific section of the ES.</p>	<p>The requested approach has been adopted in preparing this chapter of the ES.</p>
Public Health England	<p>PHE welcomed the proposed inclusion of the Construction Management Plan (CMP) with commitments to mitigate exposure to air pollution (e.g., fine particulate matter, dusts and nitrogen dioxide) to as low as possible below the air quality standards.</p>	<p>The comments in relation to production of a CMP and emissions are noted. An Outline CEMP (Volume 7.12) accompanies the DCO application.</p> <p>Chapter 16: Health (Volume 6.2) considers the potential for significant effects on human health during the construction and operational phases.</p>



Consultee	Issue raised	Response
	<p>With regard to emissions from Energy from Waste developments. PHE has reviewed research undertaken to examine the suggested links between emissions from municipal waste incinerators and effects on health (https://www.gov.uk/government/publications/municipal-waste-incinerator-emissions-impact-on-health). PHE's risk assessment remains that modern, well run and regulated municipal waste incinerators are not a significant risk to public health. While it is not possible to rule out adverse health effects from these incinerators completely, any potential effect for people living close by is likely to be very small. PHE welcomed the operational emissions being scoped into the assessment.</p> <p>PHE's position is that pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen, are non-threshold; i.e., an exposed population is likely to be subject to potential harm at any level and that reducing public exposures of non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure), and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.</p>	
<p>Public Health England</p>	<p>PHE requested that the developer should confirm either that the proposed development does not impact any receptors from potential sources of Electric and Magnetic Fields (EMFs); or ensure that an adequate assessment of the possible impacts is undertaken and included in the ES.</p>	<p>EMFs are considered in Section 16.9 of Chapter 16: Health (Volume 6.2).</p>



Consultee	Issue raised	Response
Public Health England	<p>Under the heading of Human Health and Wellbeing, PHE identifies 21 wider determinants of health and wellbeing, which it expects the ES to address. Determinants are set out under four broad themes:</p> <ul style="list-style-type: none"> • Access; • Traffic and Transport; • Socio-economic; and • Land use. 	<p>The 21 wider determinants of health provided by PHE were subsequently used to help scope the assessment of health, See Section 16.8 of Chapter 16 (Volume 6.2) for further details.</p>
Public Health England	<p>PHE recommended the use of the broad definition of health proposed by the World Health Organisation (WHO) and we welcome a specific reference to mental health. There should be parity between mental and physical health, and any assessment of health impact should include the appreciation of both. A systematic approach to the assessment of the effects on mental health, including suicide, is required. The PEIR should reference the methodology used to complete assessments for the effects on mental health and wellbeing. The Mental Well-being Impact Assessment (MWIA) could be used as a methodology. The PEIR should clearly identify this Study Area and include justification for the decision. The Study Area must include the connection corridor for any under or over ground cables or pipework.</p>	<p>The ES adopts a broad definition of health, reflecting the 21 wider determinants of health provided by PHE.</p> <p>The ES includes consideration of the MWIA toolkit (refer to Section 16.8).</p> <p>The Study Area includes the Grid Connection Corridor (refer to Section 16.6 of Chapter 16: Health Volume 6.2).</p>
Public Health England	<p>An approach to the identification of sensitive receptors has been provided but does not make links to the list of protected characteristics within an Equality Impact Assessment (EqIA). The impacts on health and wellbeing and health inequalities of the scheme may have particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. The ES and any EqIA should not be completely separated.</p>	<p>There is no requirement to produce an EqIA in this instance.</p> <p>Chapter 16: Health (Volume 6.2) considers the characteristics of the population (refer to Section 16.5). Chapter 16: Health (Volume 6.2) does include consideration of potential effects on vulnerable groups where relevant.</p>



Consultee	Issue raised	Response
Public Health England	<p>The overall risk to Non Motorised Users (NMU) and impact on active travel should be considered on a case-by-case basis, taking into account, the number and type of users and the effect that the temporary traffic management system will have on their journey and safety. The traffic assessment must include any NMU of the local network and New Bridge Lane. Any traffic counts and assessment should also, as far as reasonably practicable, identify informal routes used by NMU or potential routes used due to displacement. The final ES should identify the temporary traffic management system design principles or standards that will be maintained with specific reference to NMU. This may be incorporated within the Code of Construction Practice.</p> <p>The scheme should continue to identify any additional opportunities to contribute to improved infrastructure provision for active travel and physical activity.</p>	<p>Chapter 6: Traffic and Transport (Volume 6.2) considers potential effects on NMUs and an Outline Construction Traffic Management Plan (Appendix 6A Outline CTMP Volume 6.4) has also been prepared. Regard has been given to the conclusions of these in Chapter 16: Health (Volume 6.2).</p>
Public Health England	<p>We expect an assessment to include consideration of the need for monitoring. It may be appropriate to undertake monitoring where:</p> <ul style="list-style-type: none"> • Critical assumptions have been made • There is uncertainty about whether negative impacts are likely to occur, as it may be appropriate to include planned monitoring measures to track whether impacts do occur. • There is uncertainty about the potential success of mitigation measures • It is necessary to track the nature of the impact and provide useful and timely feedback that would allow corrective mitigation to be taken. 	<p>The Environment Agency (EA) acts as the Competent Authority and regulates relevant activities under the Environmental Permitting (England and Wales) Regulations 2016 (SI 2016/1154). This will include requirements in relation to monitoring. In addition the Applicant is in discussion with KLWN and FDC with regard to their requirements for the monitoring of air quality.</p>



2. Key Stakeholder consultation

16.2.1 Following a review of responses to the Scoping Report, additional engagement was undertaken on the approach to the assessment of potential effects upon human health. Copies of the proposed methodology were submitted to consultees in September 2020 in a Technical Note. The following were consulted:

- Fenland District Council;
- Cambridgeshire County Council;
- Borough Council of Kings Lynn and West Norfolk;
- Norfolk County Council; and
- Public Health England.

16.2.2 A summary of the issues discussed in relation to the methodology from the consultees who replied is presented in **Table 16A.2 Summary of additional engagement regarding Health, September 2020**. This has been updated with minor changes to the text presented in the PEIR to clarify previous responses and reference other documents, including relevant chapters of the ES.

Table 16A.2 Summary of additional engagement regarding Health, September 2020

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Cambridgeshire County Council	Letter – September 2020	Support for specific inclusion of a Chapter on Health in the ES and for the intention that individual topic chapters consider human health as a specific receptor within their remit, where relevant and where it cannot be scoped out from assessment.	Comment noted. A Health-specific chapter was prepared for the PEIR and the same approach has been taken for the ES.
Cambridgeshire County Council	Letter – September 2020	The role of the Human Health ES chapter should be to bring together the individual assessments within the relevant ES chapters to assess the in-combination effects upon human	The role of the ES Chapter 16: Health (Volume 6.2) is to bring together the individual assessments within the relevant ES



Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		health within the Study Area. The move of this assessment from the Socio-economic chapter to the Human Health Chapter along with a consideration of the effects upon mental health and wellbeing was supported.	chapters to assess the effects upon human health within the Study Area and include consideration of measures to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment.
Cambridgeshire County Council	Letter – September 2020	Agreed that the Study Area should reflect the Study Areas adopted in the individual ES Assessments.	Section 16.4 of ES Chapter 16: Health (Volume 6.2) discusses the Study Area adopted for the assessment. Where likely significant effects that relate to health have been identified in other Chapters these have been considered within Chapter 16: Health (Volume 6.2) .
Cambridgeshire County Council	Letter – September 2020	The proxy indicators for mental health are agreed but narrow in scope, consideration should be given to other measures such as self-reported mental health status. There may not be an appropriate baseline on which to compare any effects on mental health, therefore the HIA methodology of identifying adverse effects on mental health should be considered to supplement the dynamic model of mental wellbeing proposed.	Data produced by the ONS on life satisfaction and anxiety has been referred to in Section 16.5 of Chapter 16: Health (Volume 6.2) .
Cambridgeshire County Council	Letter – September 2020	The “dynamic model of mental wellbeing for assessing mental wellbeing impact” diagram in the PDF supplied is not clear enough to read, and the web link given as the reference source does not work, however, the principle that a fuller assessment of the likelihood of significant effects upon mental health and wellbeing would only be undertaken if the likelihood of significant effects with mitigation in place cannot be screened out is supported but the results of the screening exercise should be shared and agreed with the County Council before it is reported within the Environmental Assessment.	A clearer version of the dynamic model was provided in a subsequent note (dated April 2021 and circulated on the 23 April 2021) and the web link was updated. The Applicant notes that CCC supports a screening approach and can confirm that the results of the exercise are included in the ES.



Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Cambridgeshire County Council	Letter – September 2020	Referenced Policy 18 of the Minerals and Waste Local Plan (submitted to the Secretary of State on 24 th March 2020) and the need to demonstrate that the policy requirements have been met.	The requirements of Policy 18 are reviewed in Table 16.5 and have been taken account of in preparation of Chapter 16: Health (Volume 6.2) .
Borough Council of Kings Lynn & West Norfolk	Letter – September 2020	Section 2.3 (Comparable Projects) does not contain reference to the Willows Power & Recycling Centre, Saddlebow, King's Lynn, Norfolk. Upon querying this omission, it was confirmed by the Developer [the Applicant] that the "Willows EfW Environmental Statement was produced before human health was introduced into the EIA Regulations in 2017. Taking this into account, together with the age of the assessment (2011) it was not considered relevant to this project". We accept this explanation, however, expect a comparable response for this application to that received from the Willows.	The Applicant reviewed the information submitted with the planning application for the Willows Power & Recycling Centre but concluded that given its age (2011) the more recent projects discussed would be of greater relevance to the approach for the consideration of effects upon health.
Borough Council of Kings Lynn & West Norfolk	Letter – September 2020	Section 4 details the Applicant's intended approach to the review of human health. Human health will be considered within individual topic chapters as a specific receptor, where relevant and where it cannot be scoped out of the assessment, for example traffic and transport, noise and vibration, air quality, socio-economic, geology, hydrogeology and contaminated land, hydrogeology and major hazards and accidents. A specific Human Health chapter within the ES will combine these individual assessments, to measure the in-combination effects upon human health within the Study Area, along with mental health and well-being.	Comment noted. No action required.
Borough Council of Kings Lynn & West Norfolk	Letter – September 2020	The BCKLWN support the methodology and the scope of the assessment, including that the Study Area is dependant upon that adopted in the individual ES assessments. BCKLWN also welcomed that, to understand broader public health conditions,	Comment noted. Ward data is restricted to the 2011 Census but is incorporated in the Chapter 16: Health (Volume 6.2) .



Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		the study data will utilise data at the local authority level supplemented by ward level data in order to represent local community circumstances.	
Borough Council of Kings Lynn & West Norfolk	Letter – September 2020	Section 4.3.6 and 4.3.7 detail the baseline to be used when considering Mental health and Wellbeing. We do however note that West Norfolk is not mentioned in either section. We are keen to ensure that the mental health of the residents of West Norfolk is included and considered in any assessment.	Data relating to wellbeing and anxiety in Kings Lynn and West Norfolk has been referred to in Section 16.5 of Chapter 16: Health (Volume 6.2) .
	Letter – September 2020	The environmental impact of electromagnetic fields (EMF) from a potential new grid connection is examined.	EMF has been considered in Section 16.9 of Chapter 16: Health (Volume 6.2) and no effects on health are anticipated.
		The Applicant should consider effects due to interaction between humans, land and soil. There is potential for impacts at both the construction and operational phases. We agree with the approach to assess contaminated land as an individual section within the ES and for the potential health impacts to be considered together in a HIA chapter however we note that Table 2.1 does not include land contamination as a determinant for consideration of mental wellbeing. The Applicant should explain if this has been screened out from 'Environmental Impacts'.	Table 16.6 in Chapter 16: Health (Volume 6.2) has been prepared to enable the screening of the Proposed Development for its potential to impact upon mental health. The determinants listed are taken from those identified as wider determinants of mental health within the Mental Wellbeing Impact Assessment Toolkit for Wellbeing, which have been incorporated into the table along with the 21 wider determinants of health identified by PHE. Land contamination is considered in Table 16.7 of Chapter 16: Health (Volume 6.2) .
Public Health England	Letter – September 2020	PHE welcomed the proposal, noted in paragraph 4.3.2 for the Environmental Statement (ES) to include considerations of the effects upon Human Health and Wellbeing within the Human Health Chapter. PHE's expectations are that the proponent of an NSIP will conduct a proportionate and evidence-based	Chapter 16: Health (Volume 6.2) considers the potential for effects upon human health and wellbeing by considering the 21 wider determinants of health identified by PHE and the Mental Wellbeing Impact Assessment



Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		assessment of the anticipated direct and indirect effects upon health and wellbeing in line with the relevant regulatory and policy requirements.	Toolkit for Wellbeing. Chapter 16 draws on the results of other relevant Chapters in the ES, including Chapter 6: Traffic and Transport, Chapter 7: Noise and Vibration, Chapter 8: Air Quality, Chapter 9: Landscape and Visual, Chapter 15: Socio-economics, Tourism, Recreation and Land Use and Chapter 14: Major Accidents and Disasters (all Volume 6.2).
Public Health England	Letter – September 2020	The ES should take a broad approach to human health, looking at the wider determinants of health and not solely reference health protection topics presented in other chapters within the ES eg, air quality, noise and vibration and traffic.	Comment noted. The methodology presented in Section 16.8 of the chapter sets out an approach which, whilst informed by other ES chapters, also identifies and considers the potential for effects upon wider determinants, those which could give rise to effects upon mental health and wellbeing.
Public Health England	Letter – September 2020	The Human Health chapter should also present information on local health priorities and health inequalities which can be found within local authority policy and strategy documents and using tools such as PHE’s Fingertips tool. It should then consider the effect of the Proposed Development on these priorities, and within populations to which the development is relevant and who are experiencing health inequalities.	The baseline presented in Section 16.5 of Chapter 16: Health (Volume 6.2) includes reference to documents setting out local health priorities within the Study Area. Data sources used to profile baseline conditions in Chapter 16: health and Appendix 16B Health Baseline (Volume 6.4) include reference to data published by PHE (see Section 16.5).



Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Public Health England	Letter – September 2020	PHE has developed a list of 21 determinants of health and wellbeing under four broad themes. These determinants should be considered and if the Applicant proposes to scope any areas out of the assessment they should provide clear evidence based upon reasoning and justification.	The four themes of Access, Traffic and Transport, Socio Economics and Land Use as well as the 21 determinants have been used to inform the assessment (see Table 16.7 in Chapter 16: Health (Volume 6.2)).
Public Health England	Letter – September 2020	Currently there is no standard methodology for assessing the population and human health effects of infrastructure projects but a number of guides exist including IEMA's Health in Environmental Assessment, a primer for a proportionate approach, NHS London healthy Urban Development Toolkit (HUDU) 2015 and Wales Health Impact Assessment Unity 2012: HIA a practical guide. PHE expects assessments to follow best practice from these guides and from methodologies adopted within other successful health/environmental impact assessments.	These and other technical guidance and best practice were reviewed in the preparation of the methodology. Table 16.4 of this chapter sets out the sources that were considered.
Public Health England	Letter – September 2020	PHE also welcomes the proposal to include a screening of the Proposed Development's effects on mental health. Per paragraph 4.3.12 in cases where it is judged that there would be no significant effect, PHE would prefer to see deletions to the screening matrix, with a record of 'no effect'.	Where no potential for a significant effect is concluded, this has been recorded and noted as being screened out (see Table 16.7).

16.2.3 As a result of the consultation on the Technical Note issued in September 2020 it was decided to use the 21 wider determinants of health provided by PHE with the factors identified in the MWIA toolkit to help determine the scope of the assessment. In April 2021 a further consultation took place with Stakeholders to agree this approach.

16.2.4 The following were consulted:

- Fenland District Council;
- Cambridgeshire County Council;



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- Borough Council of Kings Lynn and West Norfolk;
- Norfolk County Council; and
- Public Health England.

16.2.5 The comments received and the organisations who responded are summarised in **Table 16A.3 Summary of additional engagement regarding Health, April 2021.**

Table 16A.3 Summary of additional engagement regarding Health, April 2021

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Cambridgeshire County Council	Letter – April 2021	Confirmed no further comments.	Comment noted. No action required.
Norfolk County Council	Letter – April 2021	Reiterated the need for the assessment to include Norfolk data.	Norfolk data included in the baseline (Section 16.5 of Chapter 16: Health (Volume 6.2)).
Public Health England	Letter – April 2021	Welcomed the overall approach but highlighted the need for the approach to also consider community perception and risk.	Consideration has been given to community perceptions of risk (impacting upon quality of life and wellbeing) as part of the assessment of potential impacts on human health. This is a Receptor in the Chapter 16: Health (Volume 6.2) .



3. Responses to the health chapter of the PEIR

16.2.1 Comments from material submitted by the following organisations are summarised in Table 16A.4 Summary of responses to the PEIR for Health:

16.2.2 There is a high degree of overlap with responses to other chapters, for example, Natural England suggested that relevant aspects of the Cambridgeshire Green Infrastructure Strategy should be incorporated where appropriate. This Appendix should therefore be read in conjunction with other relevant Appendices relating to **Chapter 6: Traffic and Transport, Chapter 7: Noise and Vibration, Chapter 8: Air Quality, Chapter 9: Landscape and Visual, Chapter 15: Socio-economics, Tourism, Recreation and Land Use and Chapter 17: Major Accidents and Disasters (all Volume 6.2).**

Table 16A.4 Summary of responses to the PEIR for Health

Consultee	Issue raised	Response
Cambridgeshire County Council	The Applicant has addressed previous concerns regarding the need for a health impact assessment and had acknowledged that the Cambridgeshire and Peterborough Waste Adopted Core Strategy (2011) Policy CS34 states that waste management development will only be permitted where it can be demonstrated that there would be no significant harm to e.g., human health.	Noted. Chapter 16: Health (Volume 6.2) considers the effects upon health arising from the construction and operation of the Proposed Development. It is supported by other ES topic assessments and by a Human Health Risk Assessment Appendix 8B Annex G: (Volume 6.4).
Cambridgeshire County Council	In addition they [the Applicant] have also acknowledged that the Cambridgeshire and Peterborough Waste Local Plan: Proposed Submission (Publication) Draft (Nov 2019) Policy 1: Sustainable Development and Climate Change (Adopted 28 July 2021) required proposals to demonstrate how development will help to reduce greenhouse gas emissions and take into account any significant impacts on human health and wellbeing and on air quality, and Policy 18 'Amenity Considerations' states that proposals must ensure that the development proposed can be effectively integrated with existing or planned development and must not result in unacceptable adverse impacts on the amenity of existing occupiers of land or property, including risk of harm to human health or safety.	Noted.



Consultee	Issue raised	Response
Cambridgeshire County Council	<p>The Applicant should further acknowledge in the preparation of the ES that the Cambridgeshire and Peterborough Mineral and Waste Local Plan was formally adopted on 28th July 2021 and that Policy 18 requires that developments proposed can be integrated effectively with existing or planned neighbouring development and they must not result in unacceptable adverse impacts on the amenity of existing occupiers of any land or property.</p>	<p>ES Chapter 16: Health (Volume 6.2) acknowledges that the Local Plan has been adopted.</p> <p>The criteria set out in Policy 18 have been considered and compliance is demonstrated in the Planning Statement (Volume 7.1), informed by relevant elements of this ES.</p>
Cambridgeshire County Council	<p>However, as the health chapter of the Environmental Statement is still to be completed the previous comments on the need for a systematic approach to identifying beneficial and adverse impacts on health still apply. A Health Impact Assessment is only one method by which the Applicant could demonstrate that the planned development does not result in unacceptable adverse impacts on the amenity of the existing occupiers of land or property, therefore the Applicant will still need to demonstrate that the policy requirements stated above will be met.</p>	<p>A systematic approach to Chapter 16: Health (Volume 6.2) has been adopted. The four themes of Access, Traffic and Transport, Socio Economics and Land Use, provided by Public Health England, as well as the 21 determinants provided by them have been used to inform the assessment. These were supplemented by factors identified in the Mental Wellbeing Impact Assessment Toolkit. The Planning Statement (Volume 7.1) addresses the requirements set out in Policy 18 of the Adopted Mineral and Waste Local Plan.</p>
Environment Agency	<p>When assessing the application for a permit to operate we will set conditions to ensure the emissions and discharges are at a level that will not result in significant impact on people and the environment, reflecting current statutory requirements and to ensure compliance with European Directive 2010/75/EU on Industrial Emissions. We cannot grant a permit until we are satisfied that the operation of the process will not cause significant pollution to the environment or harm to human health.</p>	<p>Noted.</p>
Borough of Kings Lynn & West Norfolk (Environmental Health comments)	<p>The impact using the Institute of Air Quality Management (IAQM) guidance is “negligible” impact, i.e., process contribution will be less than 1% of the NAQS objectives. Whilst we agree with this approach, as part of the Scoping Opinion we raised the issue of the impact on the two Air Quality Management Areas in King’s Lynn, designated for protection of human health, but this has not been included. We asked for a statement</p>	<p>The anticipated operational traffic along roads in or adjacent to AQMAs from the facility do not exceed the IAQM criteria that would require further assessment. ES Chapter 8: Air Quality (Volume 6.4) provides more detail on the Study Area adopted for the assessment.</p>



Consultee	Issue raised	Response
	<p>as to why they have not been considered further and scoped out. We can find no reference within the PEIR and ask again that a reason is provided as to why they have not been included.</p>	
<p>Borough of Kings Lynn & West Norfolk (Environmental Health comments)</p>	<p>This chapter set out the basis of what should be included in the health assessment such as air quality during construction, operation and abnormal operations and electric and magnetic field impacts from the 132kV HV line. We agree with this approach and the updated health assessment should form part of the ES which will be reviewed as part of the planning application.</p>	<p>Chapter 16: Health: (Volume 6.2) provides the updated health assessment, drawing on other relevant ES chapters.</p>
<p>Borough of Kings Lynn & West Norfolk (Environmental Health comments)</p>	<p>Comments made as part of the Scoping Exercise have been included in Appendix 16A and have been taken onboard.</p>	<p>Noted.</p>
<p>Borough of Kings Lynn & West Norfolk</p>	<p>No assessment of chimney emissions during abnormal operations has been completed to date. This assessment will need to be completed and then considered as part of the applications process. This is also relevant to Chapters 8 Air Quality & 16 Health Impact.</p>	<p>ES Chapter 8: Air Quality (Volume 6.2) includes an assessment of emissions during abnormal operations. The conclusions of the air quality assessment, including the HHRA (Appendix 8B, Annex G, Volume 6.4) are used to inform the assessment presented within Chapter 16: health (Volume 6.2).</p>
<p>Borough of Kings Lynn & West Norfolk</p>	<p>If particles of sand over 2,000 miles away can cause a serious health risk in Clenchwarton, it is not possible for an incinerator company to claim that air pollution residues from combusted waste, only 13 miles away, would be insignificant.</p>	<p>All model inputs and a full detailed breakdown of results can be seen in Appendix 8B Air Quality Technical Report (Volume 6.4). Background concentrations of particulates have been included in the modelling inclusive of current levels and therefore transboundary transport of particulates is accounted for. Transboundary transport of particulates can have a much higher effect on particulate concentrations at ground level than that which would be expected from the Proposed Development given the emission controls and chimney height.</p>



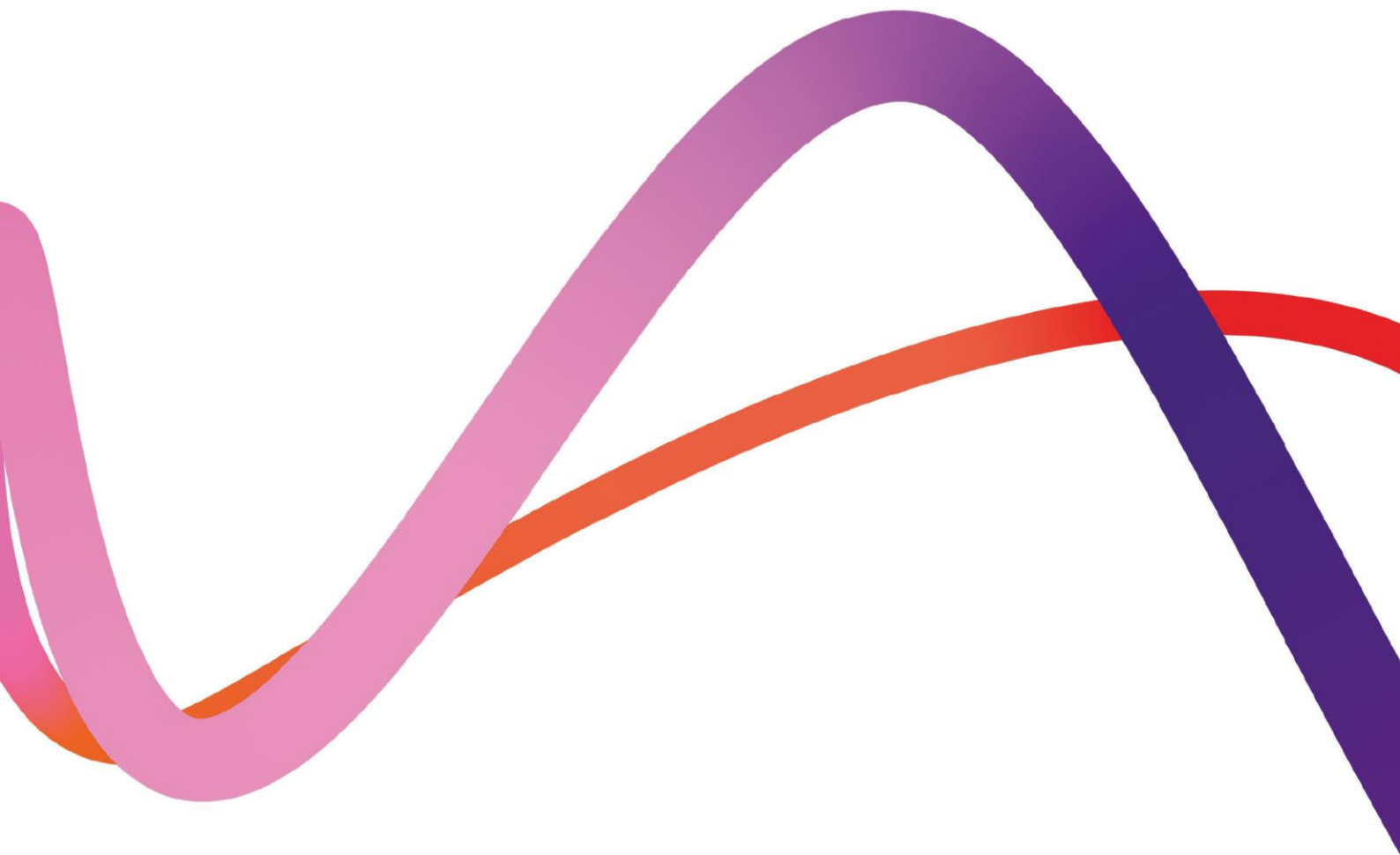
Consultee	Issue raised	Response
<p>Borough of Kings Lynn & West Norfolk</p>	<p>Research being carried out at Oxford University, shows how it is deprived communities that are chosen as the location for incinerators. The health effects caused by incinerators is masked by deprivation from other sources. We do know the areas near incinerators tend to have lower life expectancies than other areas. An incinerator in Wisbech could increase poor health and inequality downwind in South Lynn, a ward with residents in the 10% most deprived wards in England. Medworth Ward inhabitants are in the worst 2 deciles for health deprivation and disability, morbidity and premature death, and in the worst two deciles for Multiple Deprivation (Source: Cambridge Insight). The Wisbech incinerator would perpetuate health and social inequalities. For this reason, it should not go ahead. It is against Govt policy about levelling up.</p>	<p>The methods adopted for the assessment of potential effects for relevant topics, e.g., air quality, noise, transport etc comply with relevant guidance and standards and the potential for significant effects would not be masked by socio-economic conditions in the area. Baseline conditions were considered in relevant chapters of the PEIR and also the socio-economic and health assessments. The ES adopts a similar approach.</p>
<p>Borough of Kings Lynn & West Norfolk</p>	<p>The technical report doesn't properly address the human health issues from potential air and soil pollution.</p>	<p>ES Chapter 8: Air Quality (Volume 6.2) and the accompanying Human Health Risk Assessment (Appendix 8B Annex G, Volume 6.4) consider human health issues in relation to air and soil pollution.</p>
<p>Borough of Kings Lynn & West Norfolk</p>	<p>MVV have not carried out an assessment of chimney emissions if there is a mechanical failure or filter failure and they should do so.</p>	<p>Abnormal emissions have been considered within the ES, ES Chapter 8: Air Quality (Volume 6.2).</p>
<p>Borough of Kings Lynn & West Norfolk</p>	<p>It is known that incinerators emit carcinogenic dioxins and furans, heavy metals, sulphur dioxide, cadmium, lead, arsenic, ammonia and do not capture the finest air particles they emit. Research shows tiny air pollution particles have been revealed in the brain stems of young people with proteins that are closely associated with Alzheimer's and Parkinson's disease. There is good evidence that air pollution crosses the blood brain barrier and leads to neurodegenerative diseases. Once in the atmosphere, the pollution can stay in the environment indefinitely, in the air, or find its way into the soil and the food chain.</p>	<p>Chapter 16: Health (Volume 6.2) relies on the findings in relation to air quality, including the HHRA (Appendix 8B Annex G, Volume 6.4) and these are summarised in the health chapter.</p>



Consultee	Issue raised	Response
Public Health England	Please note that we have replied to earlier consultations as listed below and this response should be read in conjunction with that earlier correspondence: Request for Scoping Opinion 27/12/2019	Chapter 16: Health (Volume 6.2) takes account of earlier responses from PHE.
Public Health England	The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from, for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.	The four themes of Access, Traffic and Transport, Socio Economics and Land Use, provided by PHE in their response to the Scoping Report, as well as the 21 determinants have been used to inform the assessment (see Table 16.6 in Chapter 16: Health (Volume 6.2)). The Chapter focusses on significant effects, drawing on relevant topic-specific chapters of the ES.
Public Health England	We welcome the addition of the Health Impact Assessment Chapter within the Environmental Statement (ES)	Noted.
Public Health England	Construction activity (including traffic movements) associated with the development may generate emissions leading to exposure of local residents and the public. We welcome the proposed inclusion of the Construction Management Plan (CMP) with commitments to mitigate exposure to air pollution (e.g., fine particulate matter, dusts and nitrogen dioxide) to as low as possible below air quality standards.	An Outline CEMP (Volume 7.12) is submitted with the DCO application.
Public Health England	Regarding emissions to air from municipal energy from waste developments, PHE has reviewed published research to examine the suggested links between emissions from municipal waste incinerators and effects on health (https://www.gov.uk/government/publications/municipal-waste-incinerators-emissions-impact-on-health). PHE's risk assessment	Noted. The HHRA (Appendix 8B Annex G, Volume 6.4) has considered the effects arising from emissions to air upon human Receptors.



Consultee	Issue raised	Response
	<p>remains that modern, well run and regulated municipal waste incinerators are not a significant risk to public health. While it is not possible to rule out adverse health effects from these incinerators completely, any potential effect for people living close by is likely to be very small.</p>	
<p>Public Health England</p>	<p>Our position is that pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen, are non-threshold; i.e., an exposed population is likely to be subject to potential harm at any level and that reducing public exposures of non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure), and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.</p>	<p>Chapter 6: Air Quality (Volume 6.2) of the ES considers transport related emissions and the results are summarised in Section 16.9 of the Health Chapter (Volume 6.2) of the ES.</p>
<p>Wisbech Town Council</p>	<p>Health and well-being concerns relating to air quality and odour issues from the EfW CHP Facility have been key concerns for local residents. Wisbech Town Council is very concerned with the lack of key information within an easily accessible format, which is considered to represent a flawed community consultation.</p>	<p>Chapter 16: Health (Volume 6.2) provides relevant and full information in relation to health, drawing on information from other chapters of the ES and HHRA (Appendix 8B Annex G, Volume 6.4). A preliminary assessment was provided at PEIR.</p>



Medworth Energy from Waste Combined Heat and Power Facility

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Revision 1.0
June 2022



Environmental Statement Appendix 16B: Health Baseline

Regulation reference: The
Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009
Regulation 5(2)(a)

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Appendix 16B Health Baseline



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1. Introduction

1.1 Background and Study Area

1.1.1 This Technical Note sets out the health baseline to help contextualise the local health circumstances of the communities living in the Study Area. The Study Area comprises the local wards where the Proposed Development will take place including the Grid Connection to Walsoken. The wards are located in two local authority areas: Fenland District Council (FDC) within the county of Cambridgeshire and King's Lynn and West Norfolk Borough Council (KLWN) in the county of Norfolk. The following wards are relevant for FDC:

- Medworth;
- Octavia Hill; and
- Elm & Christchurch.

For the KLWN area the following wards are relevant:

- Emneth & Outwell; and
- Walsoken, West Walton & Walpole.

1.1.2 The relevant wards are shown in **Figure 1.1 Ward boundaries** The Study Area as a whole is shown in **Figure 1.2 Study Area**.

1.1.3 Where possible ward level data has been presented in this Technical Note. However, where this is not available information has been solely presented at local authority level. To allow comparison of data analysis has been provided for the regional level (East) and national level (England). This note should also be read in conjunction with **Chapter 16 Health (Volume 6.2)**, which provides additional information in relation to the baseline.



2. Baseline

2.1 Demography

Age Structure

Table 16B.1 Population split by age

Administrative boundary level	Name	All ages	Aged total	0-15	Aged percentage of total population	Aged total	16-64	Aged percentage of total population	Aged total	65+	Aged percentage of total population
Ward	Elm & Christchurch	4,931	855	17.34	2,795	56.68	1,281	25.98			
Ward	Medworth	3,114	426	13.68	2,023	64.96	665	21.36			
Ward	Octavia Hill	6,161	1,052	17.08	3,852	62.52	1,257	20.40			
Local Authority	Fenland	102,080	18,218	17.85	60,105	58.88	23,757	23.27			
County	Cambridgeshire	657,204	123,242	18.75	406,640	61.87	127,322	19.37			
Ward	Emneth & Outwell	4,883	835	17.10	2,704	55.38	1,344	27.52			
Ward	Walsoken, West Walton & Walpole	5,762	996	17.29	3,294	57.17	1,472	25.55			
Local Authority	King's Lynn and West Norfolk	151,245	26,565	17.56	84,753	56.04	39,927	26.40			
County	Norfolk	914,039	154,232	16.87	534,464	58.47	225,343	24.65			

16B5 ES Chapter 16 Health. Appendix 16B Health Baseline

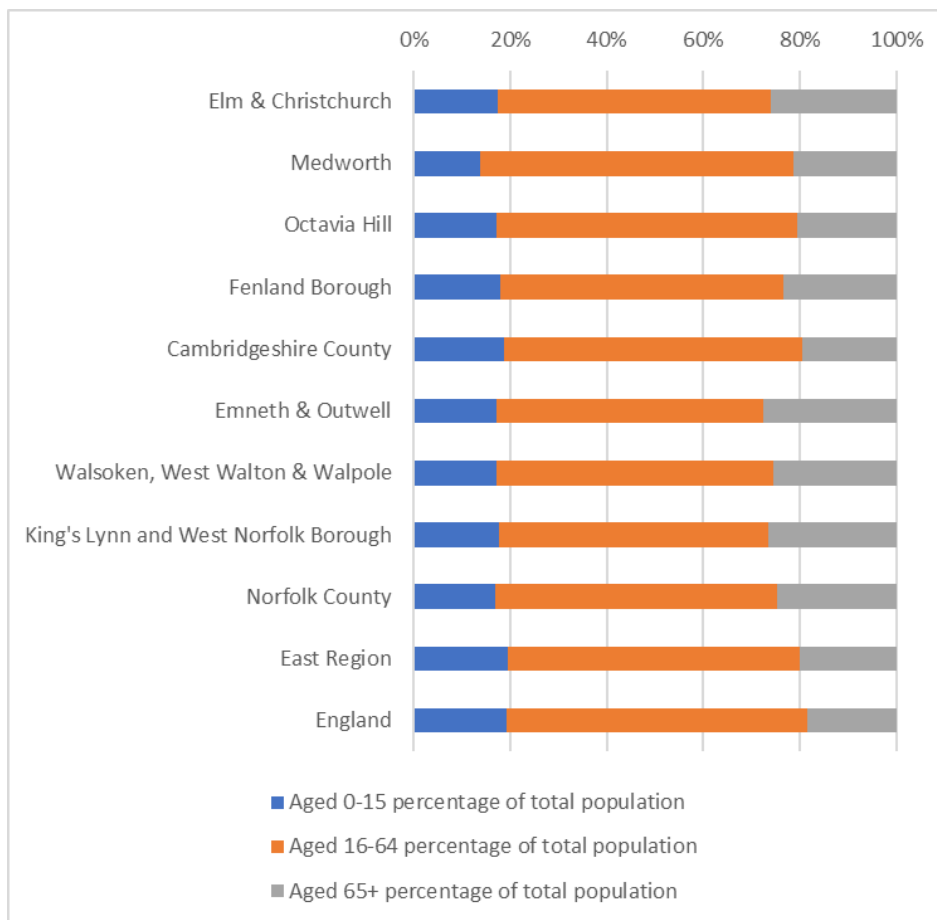


Administrative boundary level	Name	All ages	Aged total	0-15	Aged percentage of total population	Aged total	16-64	Aged percentage of total population	Aged total	65+	Aged percentage of total population
Region	Region	6,269,161	1,217,958	19.43	3,799,941	60.61	1,251,262	19.96			
Country	England	56,550,138	10,852,240	19.19	35,233,879	62.31	10,464,019	18.50			

Source: ONS Mid-year population estimates, 2020



Graphic 16B.1 Population split by age as percentage of total population



Source: ONS Mid-year population estimates, 2020

2.1.1 As shown in **Graphic 16B.1 Population split by age as percentage of total population** the wards of Medworth and Octavia Hill have relatively fewer people aged 65 or over as a percentage of the population than the neighbouring ward of Elm & Christchurch and the FDC area as a whole and have slightly lower percentage of people aged 65 or over than Cambridgeshire County, the East region and England average.

2.1.2 The wards of Emneth & Outwell and Walsoken, West Walton & Walpole have a similar population split to the King’s Lynn and West Nork Borough Council area and Norfolk County. Compared to the East region and England average there is greater proportion of those over 65 and fewer aged 0-15 at both ward, district and county level.



Population by gender

Table 16B.2 Population split by males/females

Administrative boundary level	Name	Male	Female
Ward	Elm & Christchurch	49.7	50.4
Ward	Medworth	52.3	47.7
Ward	Octavia Hill	49.3	50.7
Local Authority	Fenland District	49.5	50.5
County	Cambridgeshire County	50.0	50.0
Ward	Emneth & Outwell	49.4	50.6
Ward	Walsoken, West Walton & Walpole	48.8	51.2
Local Authority	King's Lynn and West Norfolk Borough	48.9	51.1
County	Norfolk County	49.1	50.9
Region	East Region	49.3	50.7
Country	England	49.5	50.5

Source: ONS Mid-year population estimates, 2020

2.1.3 The population split by gender is largely similar to the national and regional averages across the wards in the Study Area with the exception of Medworth, which has a higher percentage of male residents than female residents. With regards to the county level, Cambridgeshire has an equal share of male and females which does not reflect the pattern of slightly higher proportion of females at the national and regional levels.

2.2 Physical Health

Health status

2.2.1 As demonstrated in **Table 16B.3 Health status** the wards located in Fenland (Elm and Christchurch, Octavia Hill and Medworth) generally have a higher percentage of people whose day-to-day activities are limited a lot due to ill health (10.2%, 11.2% and 12.6% respectively) than the Cambridgeshire average (6.5%) and England average (8.3%). The percentage of people whose day-to-day activities are not limited is also lower than the county and national average.



- 2.2.2 The wards in King's Lynn and West Norfolk Borough (Emneth & Outwell, Walsoken, West Walton & Walpole) are generally consistent with the Norfolk average in terms of the percentage split of people whose day-to-day activities are limited a lot, a little or not limited. However, the figures reflect poorer general health than across England as a whole, in terms of limitation on day-to-day activities.
- 2.2.3 The three wards in Fenland show a lower percentage of people (Elm and Christchurch 39.4%; Octavia Hill 37.7% and Medworth 32.8%) reporting having 'very good health' than the Cambridgeshire (49.4%) and national average (47.2%). However, the percentage saying they had 'good health' in these wards (Elm and Christchurch 37.6%; Octavia Hill 38.3%; Medworth 39.7%) is higher than the county (34.7%) and national average (34.2%). However, the percentage of people in 'bad health' or 'very bad health' is also higher in these wards than the county and national averages.
- 2.2.4 The Fenland wards show a similar pattern. The percentage of people in 'very good health' (Emneth & Outwell 39.4%; Walsoken, West Walton & Walpole 39.8%) is lower than the county (42.7%) and national average (47.2%) but those in good health is higher. As with the Fenland wards, the percentage of people reporting being in 'bad health' and 'very bad health' is higher than that seen at the county and national level.



Table 16B.3 Health status

	Elm Christchurch		and Octavia Hill		Medworth		Emneth & Outwell		Walsoken, Walton & Walpole		West Cambridgeshire		Norfolk		England	
Health status	number	%	number	%	number	%	number	%	number	%	number	%	number	%	number	%
Day-to-day activities limited a lot	491	10.2	592	11.2	326	12.6	489	10.4	649	10.4	40,621	6.5	77,696	9.1	4,405,394	8.3
Day-to-day activities limited a little	560	11.7	593	11.2	313	12.1	542	11.5	718	11.5	54,406	8.8	94,735	11	4,947,192	9.3
Day-to-day activities not limited	3,744	78.1	4,123	77.7	1,946	75.3	3,660	78.1	4,872	78.1	526,183	84.7	685,457	79.9	43,659,870	82.4
Very good health	1,887	39.4	1,999	37.7	847	32.8	1,853	39.4	2482	39.8	306,910	49.4	366,280	42.7	25,005,712	47.2
Good health	1,803	37.6	2,033	38.3	1,027	39.7	1,749	37.2	2340	37.5	215,746	34.7	314,157	36.6	18,141,457	34.2
Fair health	779	16.2	896	16.9	531	20.5	794	16.9	1004	16.1	73,386	11.8	129,218	15.1	6,954,092	13.1
Bad health	257	5.4	303	5.7	146	5.6	230	4.9	318	5.1	19,715	3.2	37,527	4.4	2,250,446	4.2
Very bad health	69	1.4	77	1.5	34	1.3	74	1.6	95	1.5	5,453	0.9	10,706	1.2	660,749	1.2

Source: Nomisweb using 2011 Census data



2.2.5 As demonstrated in **Table 16B.4**, the rate of obesity in Year 6 children in Fenland and King’s Lynn and West Norfolk is in line with the national average although slightly above the East of England region.

Table 16B.4 Prevalence of obesity in Year 6 children (2019/20)

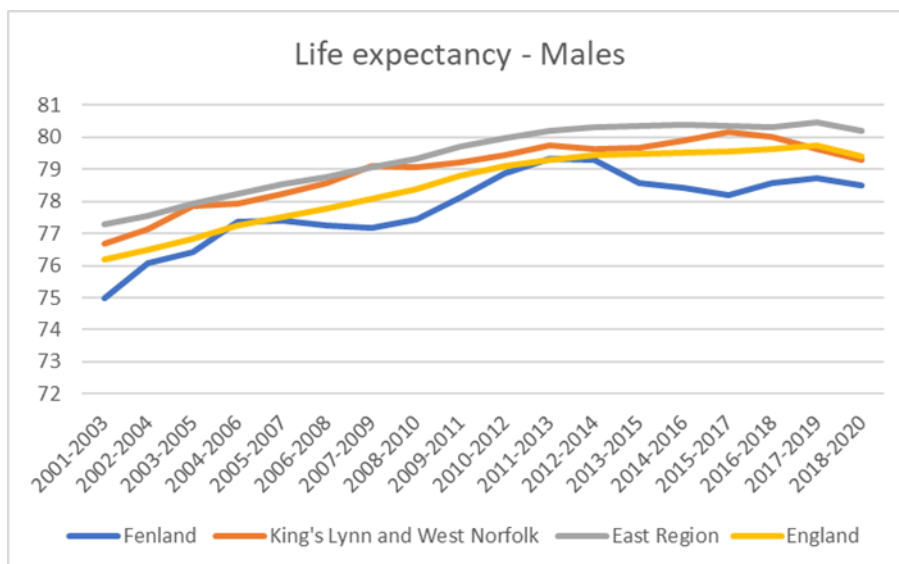
	Fenland	King's Lynn and West Norfolk	East of England	England
Percentage of Year 6 classed as obese (%)	20.5	21.5	19.1	21

Source: PHE Local Authority Profile

Life expectancy

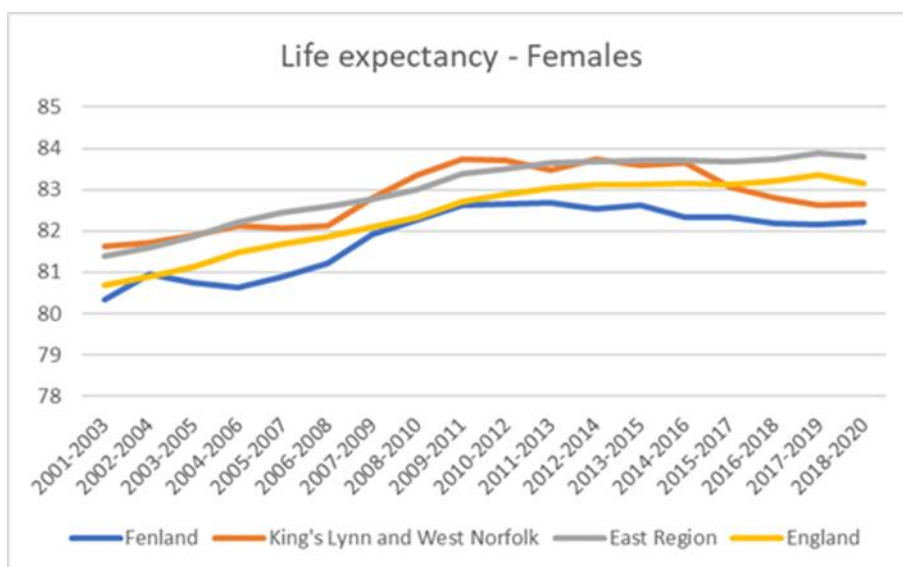
2.2.6 Male and female life expectancy (shown in **Graphic 16B.2 Life expectancy at birth – Males** and **16B.3 Life expectancy at birth – Females**) had generally been increasing in recent years both nationally and in the east region until the most recent time period covering 2018-20). Life expectancy in Fenland has been generally below the national regional average for both males and females whereas for King’s Lynn and West Norfolk life expectancy has generally above the averages. Within both local authority areas life expectancy has fluctuated. Female life expectancy has decreased in recent years but slightly increased in 2018-20, which does not follow the national and regional trend.

Graphic 16B.2 Life expectancy at birth – Males





Graphic 16B.3 Life expectancy at birth – Females



Source: ONS Male and female life expectancy at birth across local areas in the UK

Mortality rates for under 75s

2.2.7 **Table 16B.5 Mortality rates for under 75s (2017-19)** shows the mortality rates for under 75s within Fenland, King's Lynn and West Norfolk, East of England and England. Within Fenland, mortality rates from all cardiovascular diseases per 100,000 (84.0); mortality rates from cancer (138.1) and from all causes (385.7) are higher than the regional average and England averages. The rates for King's Lynn and West Norfolk are very similar to the England average although greater than the regional average.

Table 16B.5 Mortality rates for under 75s (2017-19)

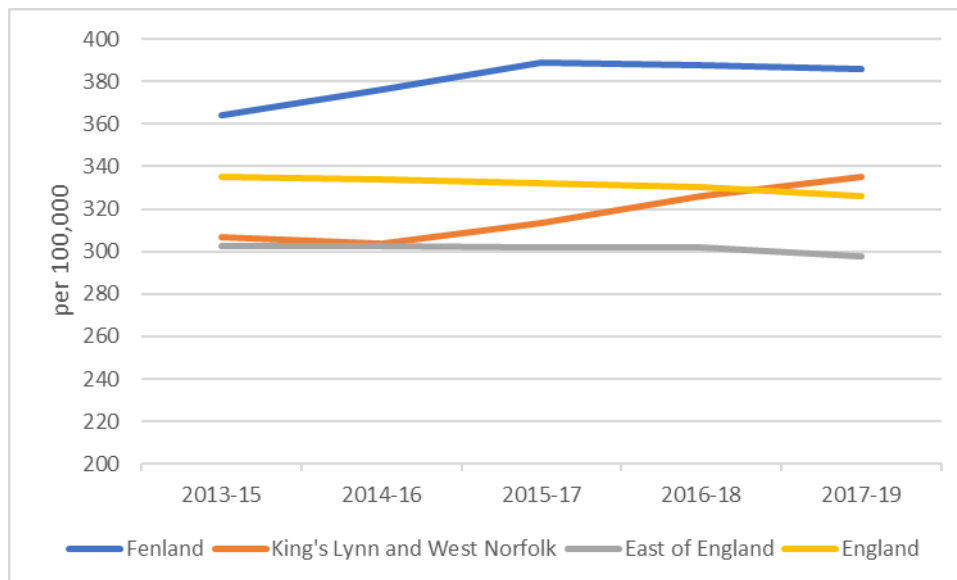
	Fenland	King's Lynn and West Norfolk	East of England	England
Under 75 mortality rate from all cardiovascular diseases per 100,000 (2017-19)	84.0	72.2	62.9	70.4
Under 75 mortality rate from cancer per 100,000 (2017-19)	138.1	130.0	122.6	129.2
Under 75 mortality rate from all causes per 100,000 (2017-19)	385.7	335.4	297.6	326.0

2.2.8 As demonstrated by **Graphic 16B.4 Mortality rates for under 75s from all causes (2013-15 to 2017-19)** the trend in mortality rates for under 75s from all causes in recent years shows that Fenland has had a higher rate than the regional and national average whilst King's Lynn and West Norfolk rate has shown an increase



in recent years. The trend regionally and nationally is a decline in mortality rates over the time period.

Graphic 16B.4 Mortality rates for under 75s from all causes (2013-15 to 2017-19)



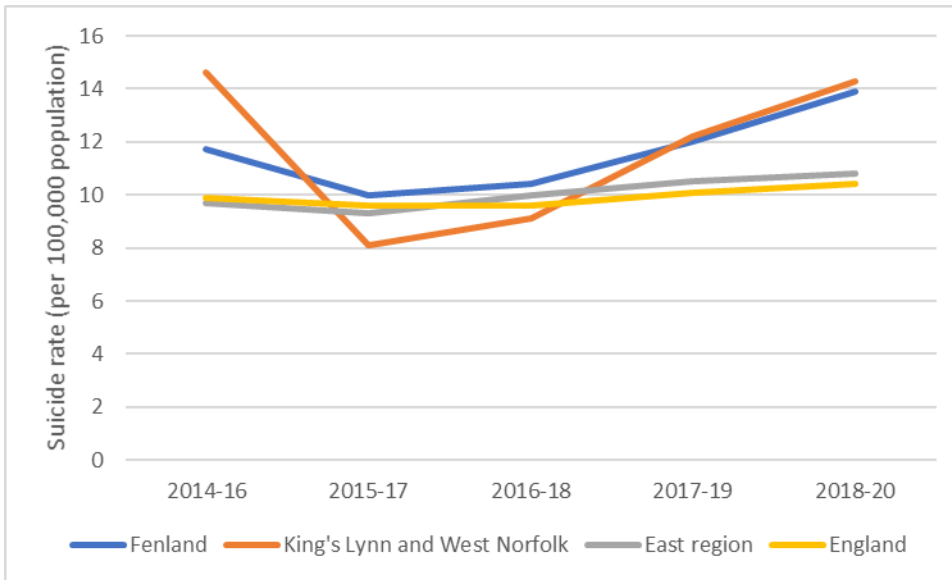
2.3 Mental Health

Suicide rates

2.3.1 Suicide rates (**Graphic 16B.5 Suicide rates**) in the Fenland and King's Lynn and West Norfolk local authority areas initially decreased from 2014-16 to 2015-17 but have increased since 2015-17 and are now above the national and the regional averages. In 2018-20 Fenland had a rate of 13.9 per 100,000 whilst King's Lynn and West Norfolk had a rate of 14.3 per 100,000. This is higher than both the East region (10.8) and the national average (10.4).



Graphic 16B.5 Suicide rates

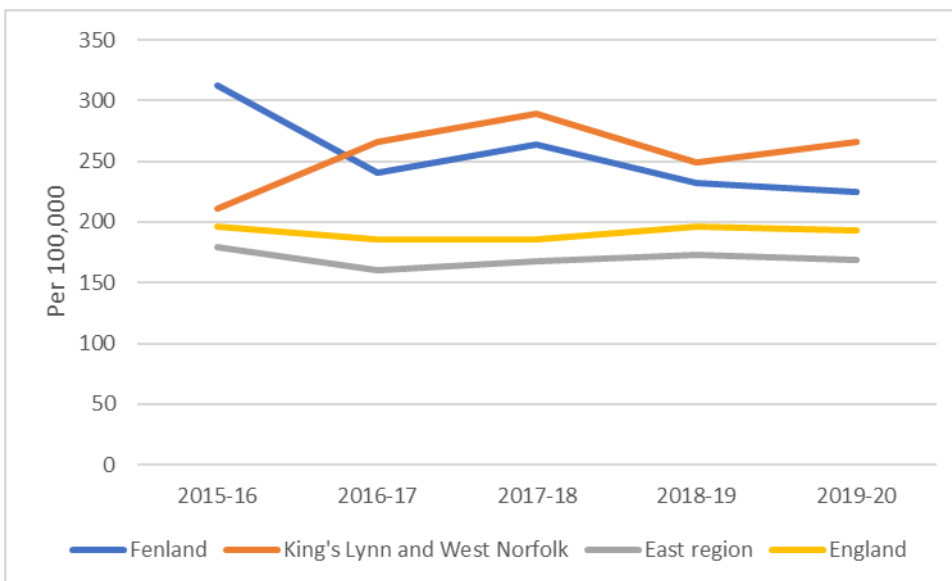


Source: Public Health England Local Authority Health Profiles

Hospital admissions for self-harm

2.3.2 The rate of hospital admissions for intentional self-harm (**Graphic 16B.6 Emergency hospital admissions for intentional self-harm**) have fluctuated but for both local authorities they have constantly been above the regional East of England average and the national average.

Graphic 16B.6 Emergency hospital admissions for intentional self-harm



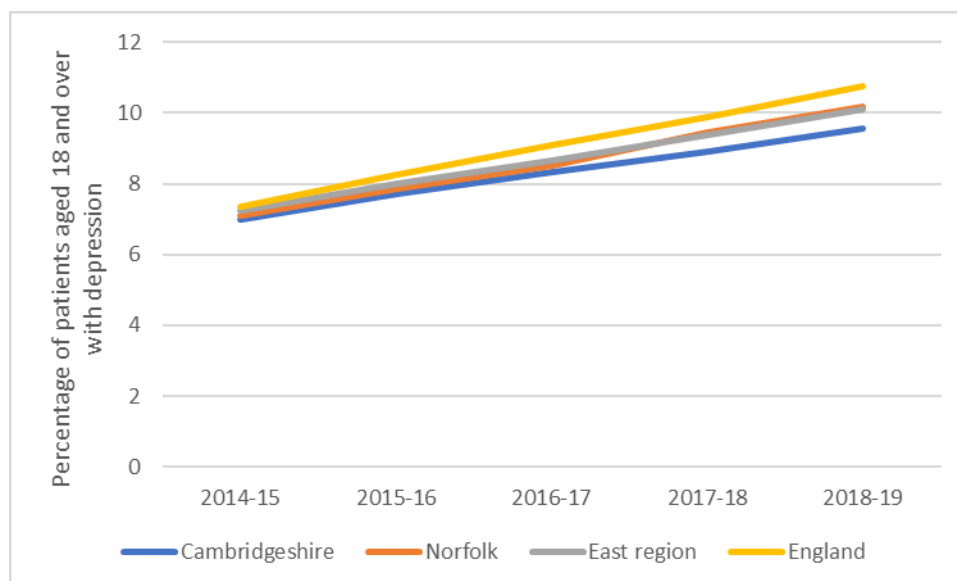
Source: Public Health England Local Authority Health Profiles



Depression

- 2.3.3 Recorded incidences of depression (**Graphic 16B.7 Depression recorded incidence**) in the Norfolk and Cambridgeshire areas have increased since 2014-15 to 2018-19 in line with the increases seen at the national and regional level. However, both Cambridgeshire (9.6% of patients) and Norfolk (10.2% of patients) have lower a lower percentage of patients aged 18 who have diagnosed depression than the England average (10.7%).

Graphic 16B.7 Depression recorded incidence



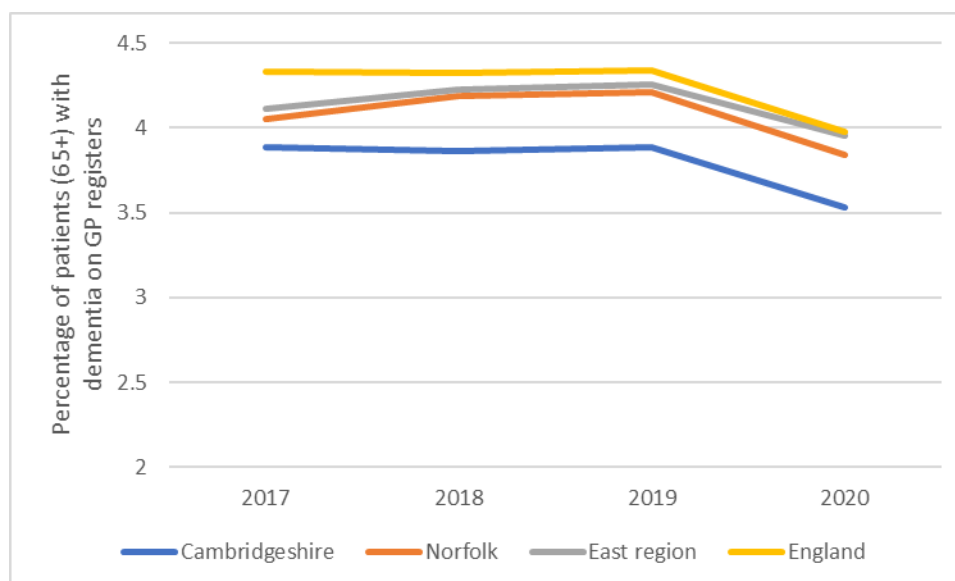
Source: PHE Fingertips via Cambridgeshire Insight and Norfolk Insight

Dementia

- 2.3.4 Recorded incidences of dementia (**Graphic 16B.8 Dementia: Recorded incidence**) have decreased between 2019 and 2020 in both local authority areas, regionally and nationally. Cambridgeshire (3.5%) has slightly lower percentage of patients aged 65 and over with diagnosed dementia than Norfolk (3.8%), the East region and national average (4.0%).



Graphic 16B.8 Dementia: Recorded incidence



Source: PHE Fingertips via Cambridgeshire Insight and Norfolk Insight

2.4 Deprivation

2.4.1 The Index of Multiple Deprivation 2019 (IMD 2019) is the official measure of relative deprivation for small area geographies called Lower-layer Super Output Areas (LSOAs), in England. LSOAs are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales. The Minimum population of an LSOA is 1,000 and the mean is 1,500. There is a total of 32,844 LSOAs nationally. **Figure 2.1 (Index of multiple deprivation)** shows the incidence of deprivation within the Study Area.

2.4.2 Under the measures in the 2019 Indices of Multiple Deprivation the FDC area is ranked as the 51st out of 317 local authorities nationally and King's Lynn and West Norfolk 79th out of 317 (rank of average rank, where 1 is the most deprived local authority). Fenland ranks as the 2nd most deprived local authority in the Cambridgeshire and Peterborough area and the most deprived district in Cambridgeshire. King's Lynn and West Norfolk is the 3rd most deprived area in Norfolk. Medworth Ward is in the 10% most deprived LSOAs in England (see **Figure 2.1 Index of multiple deprivation**).

2.4.3 The Health Deprivation and Disability Domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health. The domain measures morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of future health deprivation. Fenland District ranks 50th out of 317 local authorities. King's Lynn and West Norfolk ranks 63rd (rank of average rank). Fenland ranks 1st among the other districts for this domain. King's Lynn and West Norfolk is the 3rd most deprived district in Norfolk for this domain. **Figure 2.2 (Index of health deprivation)** presents the results within the Study Area. This shows that LSOAs within Medworth are in the worst 2 deciles for this domain.



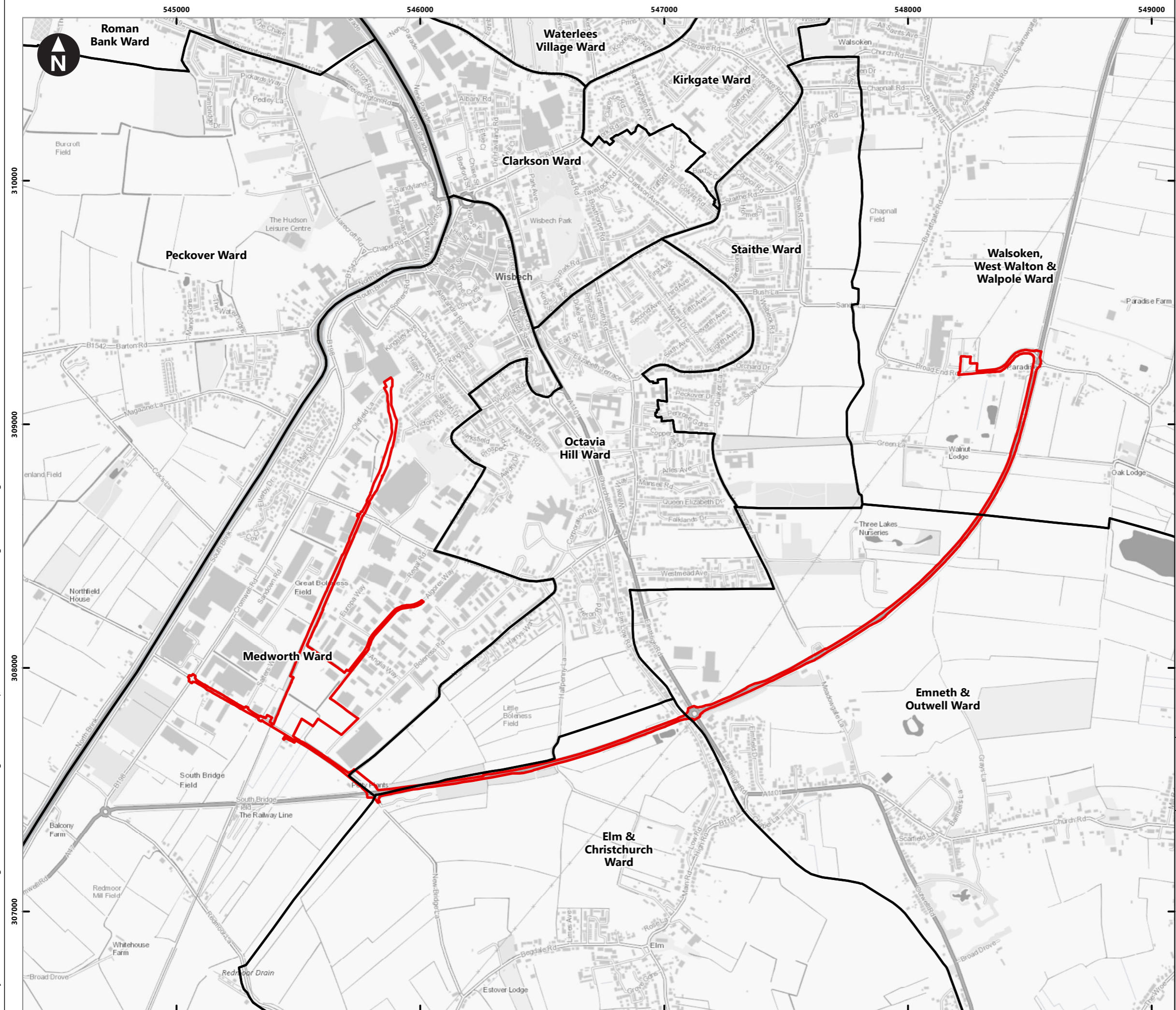
2.5 Conclusions

- 2.5.1 This Technical Note sets out the health baseline to help contextualise the local health circumstances of the communities living in the Study Area.
- 2.5.2 Where possible ward level data has been presented in this Technical Note. However, where this is not available information has been solely presented at local authority level, with comparative data presented at the regional and national levels.
- 2.5.3 There are demographic variations in the Study Area, in terms of age and sex of the population. The wards located in Fenland (Elm and Christchurch, Octavia Hill and Medworth) generally have a higher percentage of people whose day-to-day activities are limited a lot due to ill health. Deprivation, including the health domain is high in the Medworth ward.



Figures

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Key

- Order limits
- Ward boundary

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Client

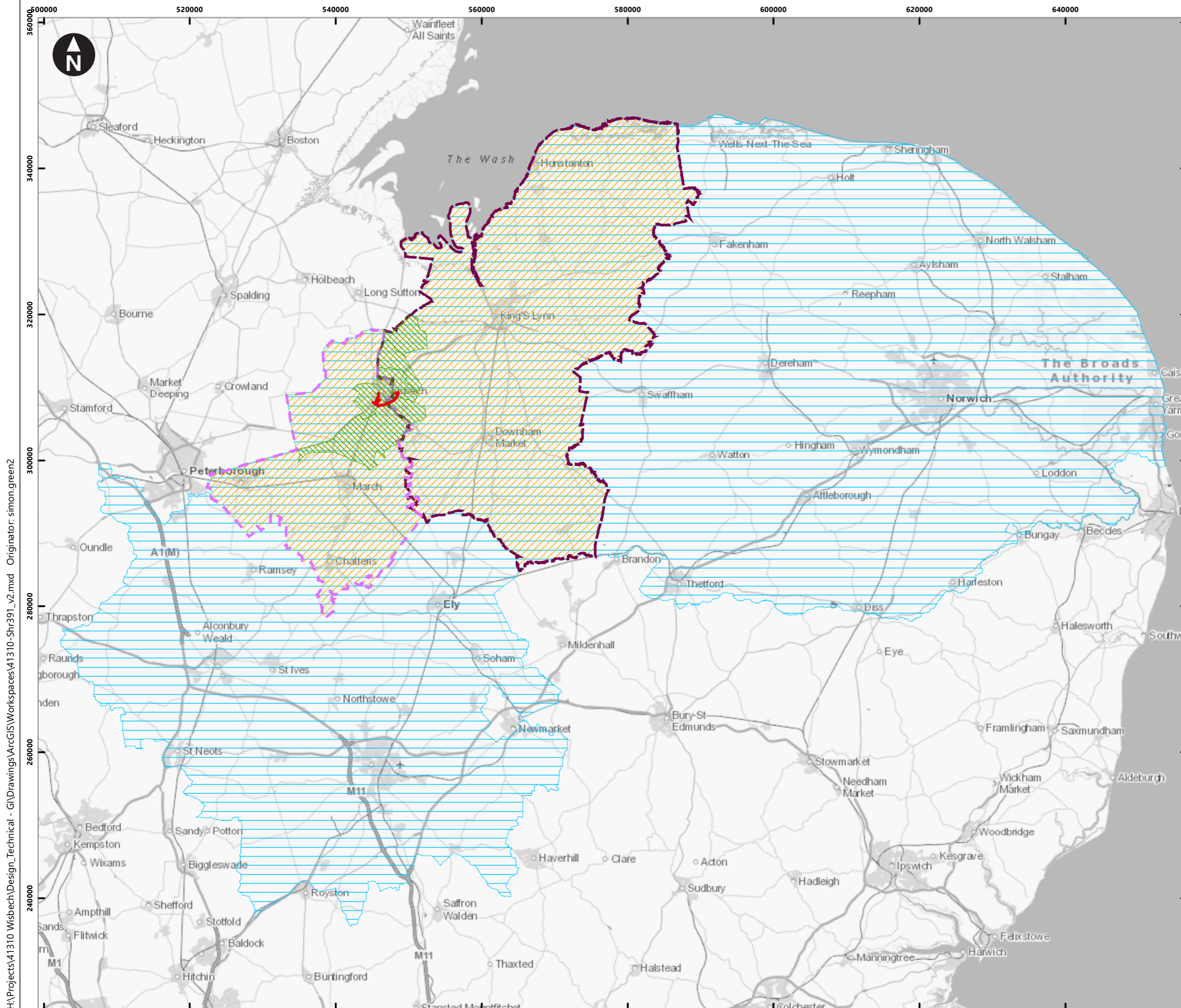


Medworth CHP Limited
 Medworth Energy from Waste Combined Heat and Power Facility
 Environmental Statement
 Appendix 16B Health Baseline






Figure 1.1
Ward boundaries

June 2022





Key

-  Order limits
- Study Area**
-  Local level - Medworth, Wisbech, Elm, Elmeth, Walsoken, West Walton and Walpole Wards
-  District level - Fenland District
-  District level - King's Lynn and West Norfolk Borough
-  County level - Cambridgeshire and Norfolk

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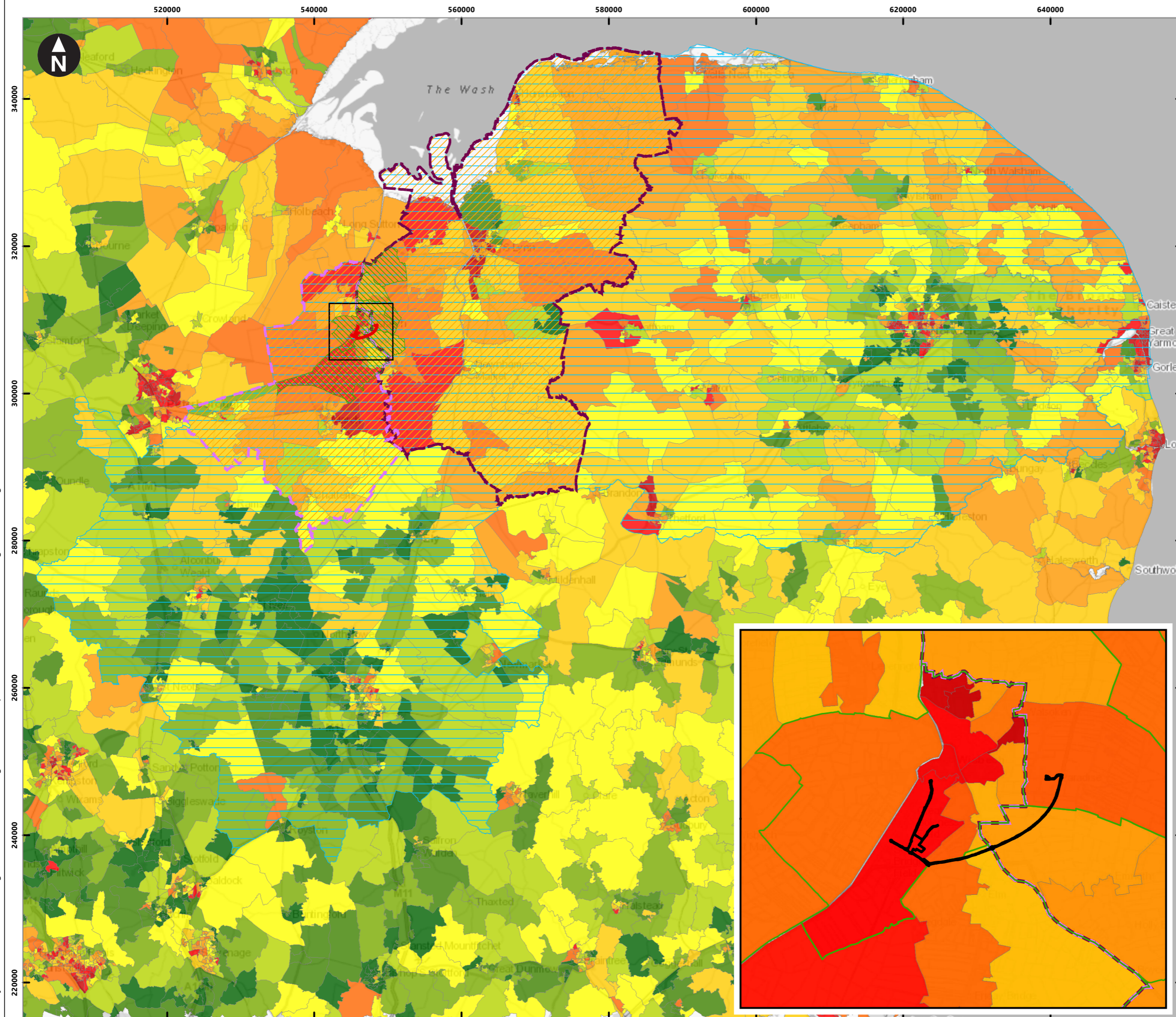
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Figure 1.2
Study Area

June 2022



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Key

- Order limits

Study Area

- Local level - Medworth, Wisbech, Elm, Elmeth, Walsoken, West Walton and Walpole Wards
- District level - Fenland District
- District level - King's Lynn and West Norfolk Borough
- County level - Cambridgeshire and Norfolk

Index of Multiple Deprivation (IMD) Decile (2019)

- 1 (10% Most Deprived)
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 (10% Least Deprived)

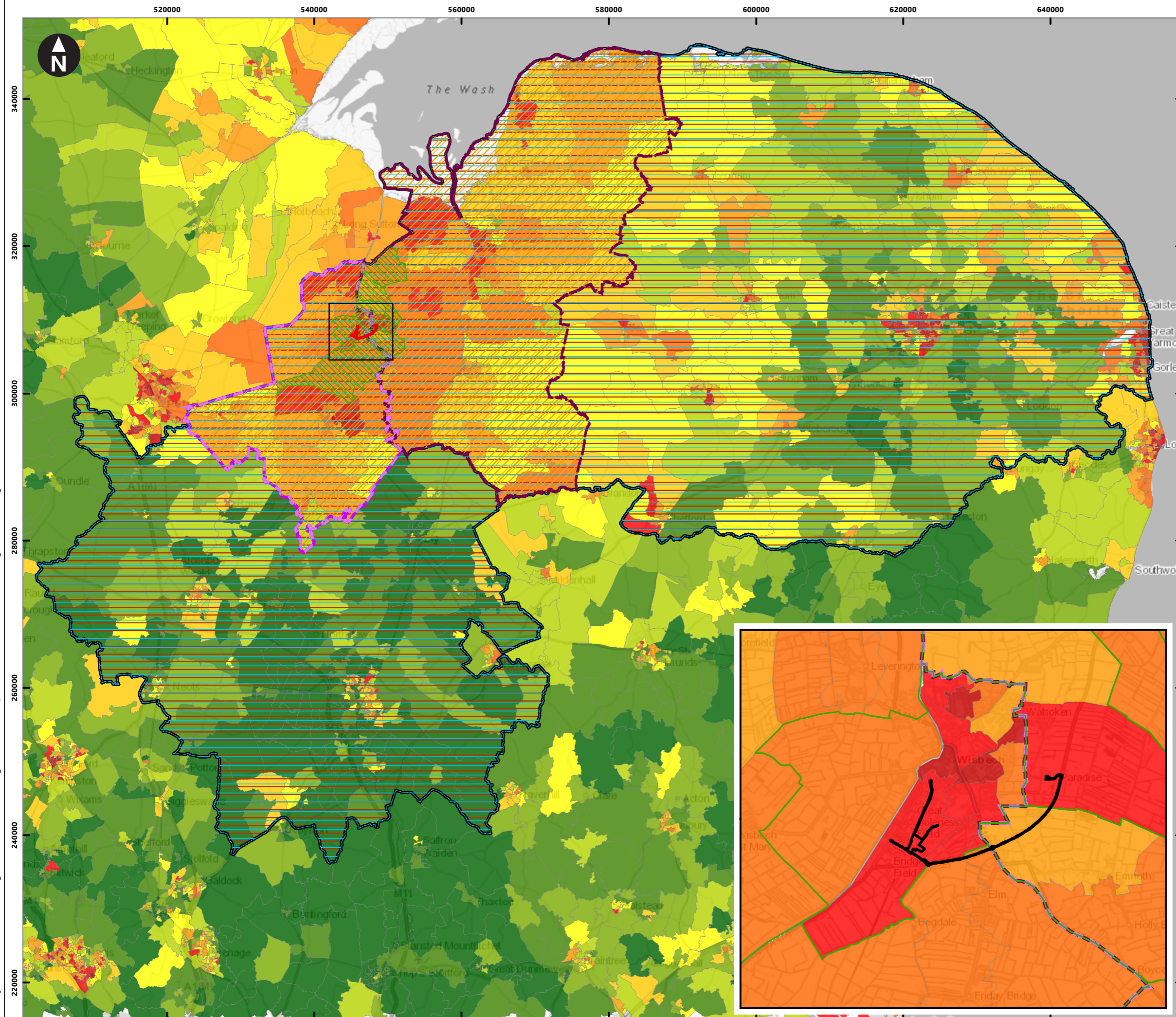
0 5,000 10,000 15,000 20,000 25,000 m
Scale at A3: 1:500,000
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Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 16B Health Baseline

Figure 2.1
Index of multiple deprivation

June 2022



Key

- Order limits

Study Area

- Local level - Medworth, Wisbech, Elm, Elmeth, Walsoken, West Walton and Walpole Wards
- District level - Fenland District
- District level - King's Lynn and West Norfolk Borough
- County level - Cambridgeshire and Norfolk

Index of Health Deprivation (HDD) Decile (2019)

- 1 (10% Most Deprived)
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 (10% Least Deprived)

0 5,000 10,000 15,000 20,000 25,000 m
Scale at A3: 1:500,000
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Client

Medworth CHP Limited
Medworth Energy from Waste Combined Heat and Power Facility
Environmental Statement
Appendix 16B Health Baseline

Figure 2.2
Index of health deprivation

June 2022

