Cambridge Waste Water Treatment Plant Relocation Project
Anglian Water Services Limited

Equalities Impact Assessment Scoping

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Cambridge Waste Water Treatment Plant (CWWTP) Relocation Project

Equality Impact Assessment (EqIA) scoping report

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Equality Impact Assessment (EqIA) scoping report

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1 Introduction

This document sets out the scope, methodology and preliminary analysis supporting the Equality Impact Assessment (EqIA) of the Cambridge Waste Water Treatment Plant Relocation (CWWTPR) Project. The document has been prepared in line with policy and legislative requirements and should be used as a guide to discuss equality considerations for the proposed waster water treatment plant going forward. The findings of this scoping report will form the basis of the main EqIA report, including any proposed mitigations and recommendations.

This chapter introduces the Proposed Development, provides an overview of the EqIA process and its legislative context, and outlines the overarching purpose of this scoping report.

1.1 Overview

The Proposed Development involves a new Waste Water Treatment Plant (WWTP) together with the associated waste water transfer infrastructure, comprising Waste Water Transfer Tunnel, and Treated Effluent Transfer Pipelines with a new outfall to the River Cam. The Proposed Development also includes a transfer pipeline corridor from a pumping station off Bannold Drive (Waterbeach), and a new access road to the proposed WWTP.

The Proposed Development is a nationally significant infrastructure project (NSIP) as directed by the Secretary of State for Environment, Food and Rural Affairs under Section 35 of the Planning Act 2008 (as amended). Anglian Water Services intends to submit an application for a Development Consent Order (DCO) to the Planning Inspectorate for the Proposed Development. The Planning Inspectorate will examine the DCO application and will make a recommendation to the Secretary of State on whether development consent for the Proposed Development should be granted or refused. The DCO application will include an EqIA report alongside other required documentation.

This EqIA scoping report sets out the requirements of the Equality Act 2010 ('the Equality Act'), and the potential impacts of the Proposed Development on people with characteristics protected under this legislation. The findings set out within this report are based on an initial review of desk-based evidence and available information pertaining to the Proposed Development. The EqIA scoping report is a preliminary report to consider the potential effects (both positive and negative) arising from the Proposed Development.

1.2 Overview of the Equality Impact Assessment

1.2.1 Policy context

1.2.1.1 National policy

National planning policy of relevance to the Proposed Development includes the National Policy Statement (NPS) for Waste Water and the National Planning Policy Framework (NPPF).

As required by the NPS for Waste Water, an EqIA should be submitted for the DCO in order to 'highlight the potential impacts policy may have on communities and equality groups'.[1]

Table 1.1 below shows the scope and the compliance of the Proposed Development with the NPS for Waste Water.

[1] HM Government (2012): 'National Policy Statement for Waste Water'. Available at: pb13709-waste-water-nps.pdf (publishing.service.gov.uk)

Table 1.1: Scope and compliance with the NPS for Waste Water

NPS requirement	Compliance of EqIA scope with NPS requirements
Section 3.2 (Environmental Impact Assessment) states that the applicant needs to set out information on the likely significant social and economic effects of the development, which could include employment, equality, community cohesion and wellbeing.	This report provides equality analysis and sets out impacts of the Proposed Development on people with protected characteristics, including effects of construction and operation on environmental conditions, community facilities, employment, economic activity, health, and neighbourhood quality. Section 3.1 of this report details potential impacts of the Proposed Development such as noise, air quality, noise, traffic and neighbourhood quality on populations and people with protected characteristics.
Section 3.8 (Safety) states that applicant needs to set out information and undertake analysis on health and safety matters related to security related to the construction, operation and decommissioning of waste-water infrastructure.	Section 3.1 of this report sets out potential health and safety effects of the Proposed Development on people with protected characteristics, also proposing mitigation strategies to mitigate risks.
Section 3.12 (Security considerations) states that national security considerations apply across all infrastructure sector and projects. The applicant should therefore set out sufficient information on security-related matters such as personal and public safety effects.	Section 3.1 of this report includes safety amongst the potential effects of the Proposed Development in construction and operation. Mitigation is also proposed in managing risks relating to the personal and public security. Sections 5.7, 5.10 and 5.11 of the literature review, set out in Appendix A also provide evidence on security issues and the people with protected characteristics likely to be affected.
Section 4.8 sets out the Government's commitment to ensure adequate provision of open space and recreational facilities to meet the needs of local communities.	Section 3.1 of this report considers effects on open space and recreational areas as one of the potential effects both in construction and operation. Section 5.12 of the literature review also sets out evidence on potential impacts on open space, PRoWs and recreational areas.
Section 4.15 suggests the types of socio-economic impacts that could be addressed during the construction, operation and decommissioning phases. They include: • The creation of job and training opportunities. • The changing influx of workers which may alter the demand for services and facilities in the areas surrounding the proposed CWWTP. • The equalities impact on people living, working or owning businesses who might be displaced as a result of the development.	Section 3.1 of this report considers the potential impacts on job creation, influx of construction workers and the impacts of potential environmental effects on the population. These effects include noise, air quality, landscape and visual, traffic and transport and neighbourhood quality, which is the combination of effects in causing severance and changes to localities. The existing socio-economic conditions in the areas surrounding the Proposed Development are set out in the baseline section of Appendix B. This includes demographic profile of the area, along with maps to illustrate areas with disproportionate representation of people with protected characteristics to inform the impact assessment.

Source: National Policy Statement for Waste Water (2012)

The NPPF with particular reference to Section 6: Building a strong, competitive economy (paragraphs 80, 82-83), Section 12: Achieving well designed places (paragraphs 127-128) and Section 8: Building health and safe communities (paragraphs 91, 92, 96 and 98).[2]

1.2.1.2 Local policy

Local planning policy of relevance to the Proposed Development includes the following local plans and strategies.

- South Cambridgeshire District Council Local Plan 2018 with particular reference to:
  - Chapter 2: Spatial Strategy, with particular reference to Policy S/4: Cambridge Green belt.

[2] National Planning Policy Framework, February 2019, Ministry of Housing, Communities and Local Government, available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

  - Chapter 9: Successful Communities, with particular reference to:
    - Policy SC/1: Allocation for Open Space;
    - Policy SC/3: Protection of Village Services and Facilities;
    - Policy SC/4: Meeting Community Needs;
    - Policy SC/7: Outdoor Play Space, Informal Open Space and New Developments;
    - Policy SC/8: Protection of Existing Recreation Areas, Playing fields Allotments and Community Orchards;
    - Policy SC/9: Lighting Proposals;
    - Policy SC/10: Noise Pollution; and
    - Policy SC/12 Air Quality.[3]
- Cambridge City Local Plan 2018 [4] with particular reference to:
  - Section Five: Supporting the Cambridge Economy
  - Section Seven: Protecting and enhancing the character of Cambridge
  - Section Eight: Services and local facilities
  - Section Nine: Providing the infrastructure to support development.
- Cambridge County Council Single Equality Strategy 2018-2022: Promoting equality, accessibility and responsibility in communities and the workforce.

1.2.2 Legislative context

This EqIA scoping report has been undertaken in support of Anglian Water Services obligations under UK equality legislation, and in particular the Equality Act. Section 149 of the Equality Act s ets out the Public Sector Equality Duty (PSED), as outlined in Figure 1.1 below.

The PSED is intended to support good decision-making. It encourages organisations delivering public functions, such as Anglian Water Services, to understand how different people will be affected by their activities. This helps to ensure projects being delivered are appropriate and accessible to all and meet different people's needs. Anglian Water Services and its partners must have due regard to the aims of the PSED throughout the decision-making process for the Proposed Development. The process used to do this must take account of those with protected characteristics, as outlined in below.

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) require that an application for a DCO be accompanied by the documents specified at Regulation 5(2)(a) to (r). An EqIA would be one of those documents and is specified at Regulation 5(2)(q).

[3] South Cambridgeshire District Council (2018): 'South Cambridgeshire Local Plan' Available at: South Cambridgeshire Local Plan 2018 - South Cambs District Council (scambs.gov.uk)

[4] Cambridge City Council (2018): 'Cambridge Local Plan' Available at: Cambridge Local Plan

Figure 1.1: Article 149 of the Equality Act 2010: The Public Sector Equality Duty

(1) A public authority must, in the exercise of its functions, have due regard to the need to

(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;

(b) advance equality of opportunity between persons who share a relevant protected characteristics and persons who do not share it.

(2) A person who is not a public authority but who exercises public functions must, in the exercise of those functions, have due regard to the matters mentioned in subsection (1).

(3) Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, the need to –

(a) remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic;

(b) take steps to meet the needs of persons who share a relevant protected characteristic that are different form the needs of persons who do not share it;

(c) encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

Source: The Equality Act 2010

1.2.3 Protected characteristics

This EqIA provides an analysis of the likely or actual effects of policies or proposals on social groups with the following protected characteristics (as defined by the Equality Act): age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief; sex; and, sexual orientation.[5] The protected characteristics and the equality groups that are considered as part of EqIA are set out in more detail in Chapter 3.

This EqIA scoping exercise determines the likely or actual effects of the Proposed Development on equality groups by:

- Assessing whether one or more of these groups could experience disproportionate or differential effects (over and above the effects likely to be experienced by the rest of the population) as a result of the Proposed Development.
- Identifying opportunities to promote equality more effectively.
- Developing ways in which any disproportionate negative impacts could be removed or mitigated to prevent any unlawful discrimination and minimise inequality of outcomes.

By understanding the effect of their activities on different people, and how inclusive delivery can support and open up opportunities, public bodies can be more efficient and effective.

1.3 Purpose of this scoping report

The overarching aims of this EqIA scoping report are as follows:

- to identify the potential impacts of the Proposed Development that could affect equality groups;
- to define how the geographic and temporal scope for the main EqIA report will be determined;
- to outline the methodological approach that will be used for the main EqIA report; and

[5] Equality Act, 2010 and Equality and Human Rights Commission, 2019

- to provide a focus for discussing equality effects going forward for the Proposed Development.

1.4 Structure of this report

The following table outlines the structure of this scoping report:

Chapter	Detail
Chapter 2: CWWTPR project context	Providing outline information around the Proposed Development based on a review of project documentation. Construction and operation activities expected to be involved in the Proposed Development are explored.
Chapter 3: Proposed scope	Setting out the potential effects of the Proposed Development relevant to equality groups, the proposed study area (geographic scope) and timescales (temporal scope).
Chapter 4: Methodological approach	Explaining the proposed methodology for identifying and assessing equality effects.
Chapter 5: Next steps	Timeframes for the main EqIA report.
Appendix A: Literature review	A review of relevant published literature to better understand the potential effects of the Proposed Development on equality groups.
Appendix B: Demographic information and mapping	A social and demographic profile of the local population to build a picture of the area in which the Proposed Development is located.
Appendix C: Evidence sources considered	A list of sources used to inform the evidence review.

2 CWWTPR project context

This chapter provides further background information for the Proposed Development, highlights the policy context and gives an overview of any previous equalities related work.

2.1 Overview

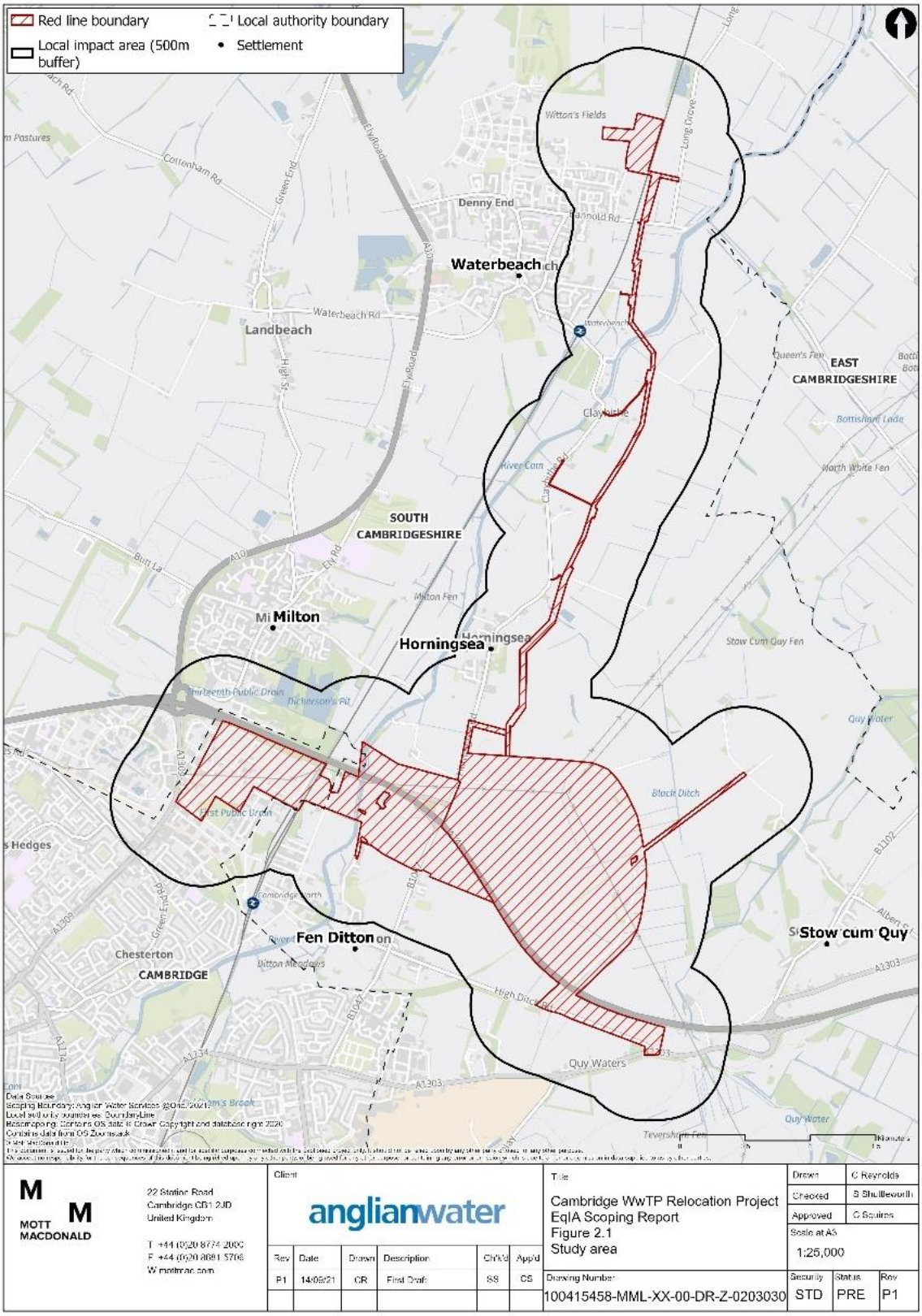
2.1.1 Need for the proposed WWTP

The Proposed Development will allow Anglian Water to continue to provide critical waste water treatment and recycling services to residents in Cambridge and Greater Cambridge in a modern, low-carbon facility designed in collaboration with stakeholders and the community. The relocation will also support the delivery of South Cambridgeshire District and Cambridge City Councils' Area Action Plan (AAP) by supporting the future development of sustainable communities through the unlocking of land.

2.1.2 Project location

Figure 2.1 below shows the map of the study area. The proposed WWTP is located 2km to the east of the existing Cambridge WWTP, within the administrative boundary of South Cambridgeshire Council. The existing Cambridge WWTP is located north east of Cambridge, immediately to the south of the A14. The proposed WWTP lies between the villages of Horningsea to the north, Stow Cum Quy to the east and Fen Ditton to the south east. The A14 extends along the south western boundary of the Proposed Development and Low Fen Drove Way, an unclassified road and public byway follows parts of the eastern and north eastern boundary of the site area

Figure 2.1: Study area



Source: Mott MacDonald (2021)

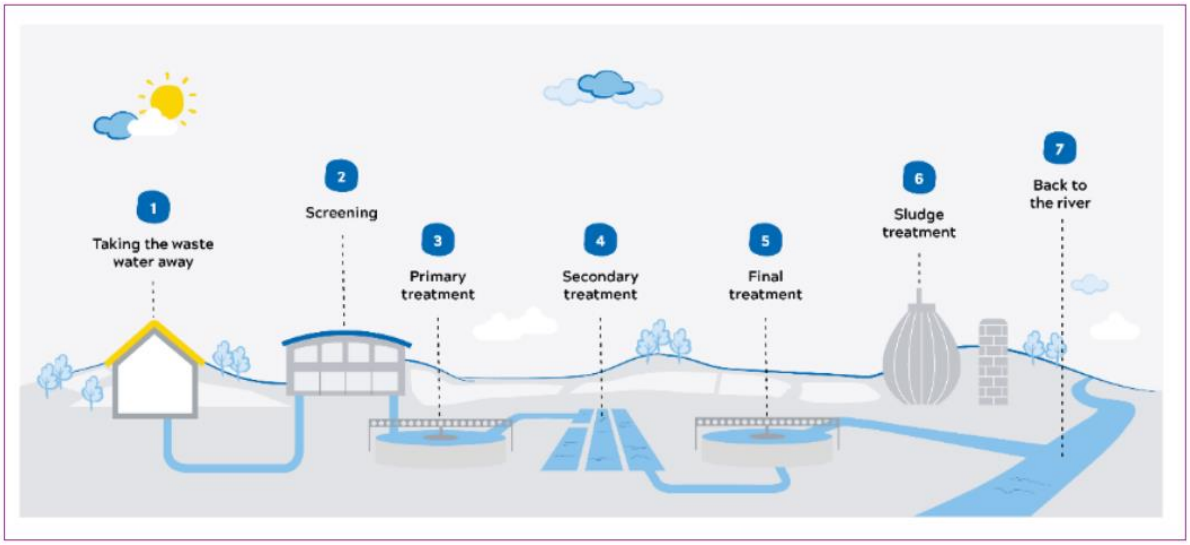
2.2 The proposed development

The existing Cambridge WWTP is an integrated WWTP, as would be the Proposed Development. Integrated WWTP incorporate a sludge treatment function, in the form of a Sludge Treatment Centre (STC), which treats the sludge derived from the waste water from the catchment, and the “wet sludge” produced by other satellite plants which do not have integrated STC.

Figure 2.2 provides an overview of the waste water and sludge treatment processes proposed for waste water and sludge. Alongside waste water treatment, all storm flows which are conveyed to the proposed WWTP following heavy rainfall would be partially treated. The sludge treatment process would produce sludge for use as bio-fertiliser for spreading on agricultural land and produce energy via anaerobic digestion as biogas is produced as a by-product.

The Proposed Development will also include the installation of photovoltaic panels to harness solar energy for conversion into electricity to service some of the site demand.

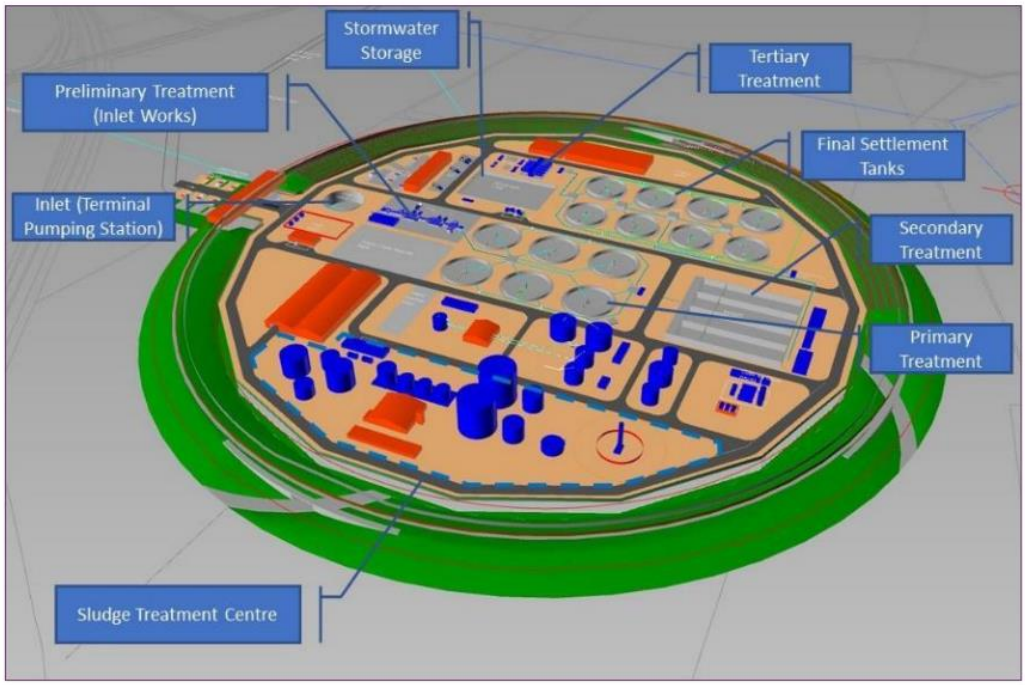
Figure 2.2: Treatment process overview



The Proposed Development comprises:

- a new integrated WWTP (see Figure 2.3);
- a transfer tunnel from the existing Cambridge WWTP to the new location with ancillary infrastructure;
- a new pipeline to transfer waste water from Waterbeach to the Proposed Development;
- a return tunnel to a new discharge point at the River Cam, including ancillary structures;
- a site access to the proposed WWTP;
- utilities connections
- offsite highway network alterations;
- delivery of a landscaping masterplan; and
- renewable energy generation and storage for use on-site and export; and
- ancillary on-site buildings (including a site office, amenities building, substation building, security kiosk and vehicle parking).

Figure 2.3: Indicative layout of proposed WWTP



Integrated waste water treatment plants act as “hubs” dealing not only with the waste water treatment process for the catchment areas in which they, and their nearby population centres, are located but also completing the waste water treatment process for the “wet sludge” tankered in from the local satellite facilities. The “wet sludge” from these satellite plants is transported to the WWTP by tankers and deposited into the first stage of the STC process at the WWTP. The existing Cambridge WWTP acts as a “hub” for local satellite sites. The overall Cambridge catchment has around 45 such satellite sites which send wet sludge to the existing Cambridge WWTP. Other local catchments, Huntingdon and Ely also feed into the existing Cambridge WWTP.

Sludge treatment is undertaken to separate suspended solids from the waste water which are then digested anaerobically. The dewatered solids at the conclusion of the digestion process are reduced to methane (which is used to generate heat required to activate the water treatment process, and power in the form of electricity), and an agricultural product to be used as fertilizer. The waste water removed as a result of the digestion process is then returned to the start of the waste water treatment process.

2.2.1 Capacity

The design capacity of the proposed WWTP will be approximately 548,000 population equivalent (PE). The waste water treatment element (i.e. the Water Recycling Centre not including the Sludge Treatment Centre) will be designed to 300,000 PE in capacity, to take 296000 PE which covers the duration of the Greater Cambridge Local Plan’s anticipated growth to 2041 and will comprise an integrated WWTP and Sludge Treatment Plant with a range of buildings, structures, facilities and features.

2.2.2 Biogas generation

At the existing Cambridge WWTP heat and electrical power are generated through burning biogas produced at the STC in combined heat and power (CHP) engines. Two options are under consideration for the proposed WWTP. These are:

- Biogas generated by the process will be firstly burned within onsite steam raising boilers to generate heat for use in the sludge treatment process and the surplus cleaned (concentration of methane increases as impurities are removed to create bio-methane) and exported to the national natural gas network; or
- The approach utilised at the existing Cambridge WWTP of burning biogas within CHP (no greater than 5MW) engines to generate electricity, will be used with the waste heat utilised within the process.

The biogas system also includes a waste-gas-burner, which burns the biogas during a failure event on site, to protect people and the environment from potential harmful impacts associated with high concentrations of methane and other gasses, in accordance with Environmental Permit requirements.

2.2.3 Discharge to river cam

The Environment Agency regulates WWTP by assessing the quality of the treated effluent returned to the environment against set compliance limits. The required level of treatment and monitoring is based on the population that the WWTP serves and the characteristics of the receiving environment. The level of treatment that a WWTP must provide and monitoring by the operator depends on the PE of the 'agglomeration[6]' it serves.

During construction of the proposed WWTP the existing Cambridge WWTP would remain in operation under the current environmental permit (ref: AN/ASCNF1033/014). There would be a planned transition period between the two WWTPs.

Once fully operational the existing Cambridge WWTP permit will be rescinded to the standards required by the Environment Agency.

As per paragraph 3.7.3 of the National Policy Statement (NPS) on Waste Water, 'the Examining Authority and the decision maker should work on the assumption that the relevant pollution control regime will be properly applied and enforced'. The main pollution control mechanism in the case of a WWTP is the Environment Agency environmental permit. The NPS goes on to say that the focus should rest on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves.

The proposed WWTP would be designed and operated to meet the requirements of the Environment Agency environmental permit.

2.2.3.1 Storm flow management

Due to the nature and design of the Cambridge sewer network all flow conditions (including storm) will be delivered via the terminal pumping station to the proposed WWTP. The provision of full treatment capacity for these larger diluted 'storm' flows is not required. Therefore, once the rate of flow into the terminal pump station exceeds the expected 'Flow to Full Treatment' (FFT) (2,000litres/second) storm pumps will start working and divert the excess incoming flows

[6] An agglomeration is an area where the population and economic activities are sufficiently concentrated for urban waste water collection. The waste water is then taken for treatment to a WWTP and to a final discharge point.

to the stormwater storage and treatment plant. This stormwater management solution will be in accordance with the agreement reached with the Environment Agency as part of the environmental permit for storm and emergency overflows which aims to minimise the risk of release of waste water to the environment.

The storm tanks will also have discharge overflow pipework that transfer flows to the River Cam only once the stormwater storage is full. These flows will be screened and partially settled. The Environment Agency's response to the environmental permit pre-application and other interactions indicate a "no detriment" impact to the River Cam approach between the existing Cambridge WWTP and proposed WWTP for storm water management.

The influent flows to the proposed WWTP are currently being refined by hydraulic models of the existing sewer network and include allowances to accommodate the planned development requirements and growth allowances. During a 1 in 100 year storm in the catchment area the flow rates to the proposed WWTP, dependant on the storm intensity chosen, are expected to peak at 7,000litres/second. The storm flows will be influenced by the treatment plant, processes and attenuation capabilities in line with the environmental permit for storm and emergency overflows (storm storage in the permit). The estimated magnitude and frequency of the storm events are currently being developed through network modelling and storm storage and treatment options.

2.2.4 Landscaping

A Landscape and Ecological Management Plan (LEMP) will be submitted as part of the DCO application, which will set out the principles for how the landscape and ecological features included within the DCO application would be delivered and how the land will be managed long term. The majority of management will be carried out in the operational phase, although landscape and habitat features will be created from the construction phase and onwards.

The delivery of elements of the landscape masterplan such as tree planting and grassland creation would start during the construction phase to ensure trees planted for visual screening can be effectively established.

2.2.5 Reinstatement

During the construction phase and once construction works are complete, for example after a certain construction compound has served its purpose, reinstatement will be undertaken. This would be done in a phased manner once certain areas are complete.

2.2.6 Construction activities required to deliver the Proposed Development

2.2.6.1 Construction staff and working hours

Construction working hours are still to be defined. It is expected that industry standard working hours are anticipated (typically Monday to Friday, 07:00 to 18:00 and Saturday, 08:00 to 13:00).

2.2.6.2 Existing Cambridge WWTP staff and working hours

The number of staff on the existing Cambridge WWTP would remain as current during construction of the proposed WWTP:

- Eight office staff are expected to be on site each day, with normal working hours of 0730-1700
- Six operations daytime staff are expected to be on site each day, with normal working hours of 0730-1700

- One operations process controller is expected to be on site at any time working two 12hr shifts per day (0700-1900 & 1900-0700)
- One operation shifts technician is expected to be on site at any time working two 12hr shifts per day (0600-1800 & 1800-0600)
- Four mechanical and electrical specialists are expected to be on site each day, with normal working hours of 0730-1700.

2.2.6.3 Construction access

It is anticipated that the main construction access will be via either Horningsea Road or from Low Fen Drove Way close to where it crosses the A14. Either access will be established as soon as possession of the site is agreed, along with the permission from the local highways authority. The following will be required to enable construction site access:

- Highways improvements will be needed to facilitate new HGV trips via either Horningsea Road or High Ditch Road. The improvements may include increasing the width of a road or implementing junction improvements.
- Temporary diversions or road closures may be required to undertake highway improvements.
- All construction access will be confirmed as the design progresses, ensuring consultation with National Highways and the county highways authority.

2.2.6.4 Construction vehicle movements

At this stage, it is anticipated that during the peak construction period, particularly during the large concrete pour, construction-based traffic could equate to an additional 200 to 300 vehicle movements. When not carrying out large concrete pours this number would likely be between 100 and 200 vehicle movements. In addition, there will be light goods vehicles (LGV) delivery vehicle movements and construction worker arrival and departures. Construction traffic predictions will be confirmed in the Environmental Statement (ES).

2.2.6.5 Construction compounds

The land identified in Figure 2.1 includes land for the proposed WWTP as well as land to accommodate the construction of the proposed WWTP and associated transfers and pipelines. Construction compounds will be required in implementing various components of the Proposed Development, such as construction of vent shafts and pipe laying. It currently understood that up to five construction compounds, two of which will be on the land of the existing Cambridge WWTP; one at the end of Green End Road adjacent to the River Cam; one on Horningsea Road and another one will be along the River Cam bank, with the exact location yet to be determined.

2.2.7 Construction programme and duration

The earliest construction is expected to start is 2024. Main works construction would commence in early 2025, followed by tunnel construction in mid-2025. Following a period of progressive commissioning, commencing autumn 2026 the proposed WWTP is planned to be fully operational in 2028. Indicative construction durations are as follows and would overlap progressively, as illustrated in Figure 2.4:

A) Enabling works and mobilisation: 3.5 months

B) Waste water recycling centre within the proposed WWTP construction including water testing and dry commissioning: 31 months

C) Proposed Sludge Treatment Centre within the proposed WWTP construction including water testing and dry commissioning: 19 months

D) Sewer transfer construction: 18 months

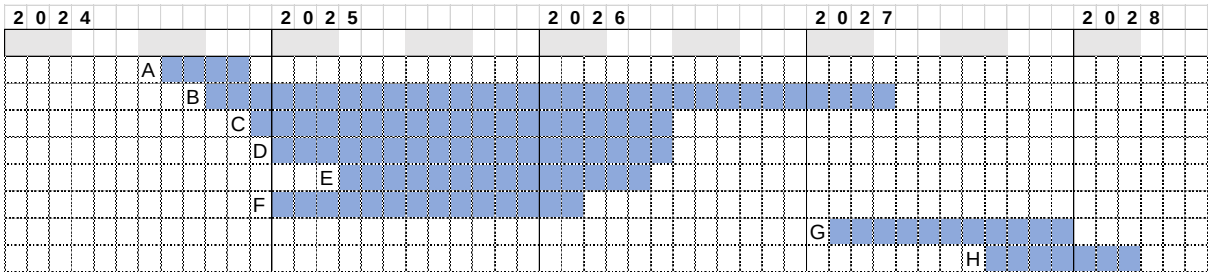
E) Treated effluent transfer construction: 14 months

F) Waterbeach connection followed by decommissioning the existing Waterbeach waste water recycling centre: 12-14 months

G) Wet Commissioning of the proposed WWTP: 11 months

H) Decommissioning the existing Cambridge WWTP: 8 month

Figure 2.4: Indicative construction programme



Source: CWWTPR Scoping Report Document reference: 100415458-MML-XX-00-RP-Z-0203001

2.2.8 Operation activities required to deliver the Proposed Development

2.2.8.1 Operational staff and hours

The proposed WWTP would be operated by the following staff with the following operational hours.

- Eight office staff are expected to be on site each day, with normal working hours of 0730-1700
- Six operations daytime staff are expected to be on site each day, with normal working hours of 0730-1700
- One operations process controller is expected to be on site at any time working two 12hr shifts per day (0700-1900 & 1900-0700)
- One operation shifts technician is expected to be on site at any time working two 12hr shifts per day (0600-1800 & 1800-0600)
- Four mechanical and electrical specialists are expected to be on site each day, with normal working hours of 0730-1700.

2.2.8.2 Operational traffic

Once the existing Cambridge WWTP ceases to operate this would result in a reassignment of all operational vehicles across the strategic and local road network. Vehicle trips, including the 129 two-way operational HGV trips that currently travel to and from the existing WWTP would reassign on the highway network to routes to and from the proposed WWTP.

2.2.9 Decommissioning of existing water treatment facilities

Once the proposed WWTP is fully operational and the Waterbeach transfer pipeline works are complete, the existing Cambridge WWTP and existing water recycling centre (WRC) at Waterbeach will be decommissioned. Decommissioning is expected to include the draining down and cleaning of existing tanks (including the disposal/treatment of any waste), making the plant mechanically and electrically safe, preventing heat generating equipment from being

As part of the relocation process the existing Cambridge WWTP will be decommissioned once the proposed WWTP is fully operational and taking all the flows that would have previously been treated at the existing Cambridge WWTP. The scope of the decommissioning will be aligned with the requirements set out by the Environment Agency in respect of the anticipated rescinding of the current operational permits, specifically the final effluent and storm discharge consents, and sludge treatment operation permit. Whilst the detail of these requirements is not yet defined but would include the draining down and cleaning of existing tanks (including the disposal/treatment of any waste), making the plant mechanical and electrically safe, preventing heat generating equipment from being operated and prevention of rainwater storage in open top tanks.

Other decommissioning activities, including the demolition of structures and site preparation for the site's redevelopment are outside of the scope of the relocation project DCO and will be carried out by the site developer in accordance with a separate planning permission. The connection shaft for the new waste water transfer tunnel will be retained as a permanent surface feature to allow access for future maintenance activities.

The existing Waterbeach Water Recycling Centre (WRC) would cease to operate once the Waterbeach transfer pipeline is fully operational taking all Waterbeach flows to treatment. Waterbeach WRC currently discharges final effluent (up to 1350m^3/day) into the adjacent Bannold Drain which runs parallel to Bannold Drove and is maintained by the Internal Drainage Board (IDB). Once the new pipeline is operational and the existing Waterbeach WRC decommissioned, the existing final effluent flow into Bannold Drain will cease.

2.2.9.1 Maintenance activities

The type and frequency of maintenance activities will be defined as the design evolves.

3 Proposed scope

This chapter presents the technical, geographical and temporal scope for the EqIA. It also considers the demographic profile of the study area and sets out the potential effects on Protected Characteristics Groups (PCGs) and proposes measures to mitigate the effects.

3.1 Technical scope of EqIA

Table 3.1 provides definitions of protected characteristics as defined in the Equality Act 2010.

Table 3.1: Protected characteristics

Protected characteristic	Equality and Human Rights Commission (EHRC) definition
Age	A person belonging to a particular age (for example 32 year-olds) or range of ages (for example 18 to 30-year olds)
Disability	A person has a disability if they have a physical or mental impairment which has a substantial and long-term adverse effect on that person's ability to carry out normal day-to-day activities.
Gender reassignment	The process of transitioning from one gender to another.
Marriage and civil partnership	Marriage is a union between a man and a woman or between a same-sex couple. Couples can also have their relationships legally recognised as 'civil partnerships'. Civil partners must not be treated less favourably than married couples (except where permitted by the Equality Act).
Pregnancy and maternity	Pregnancy is the condition of being pregnant or expecting a baby. Maternity refers to the period after the birth and is linked to maternity leave in the employment context. In the non-work context, protection against maternity discrimination is for 26 weeks after giving birth, and this includes treating a woman unfavourably because she is breastfeeding.
Race	Refers to the protected characteristic of race. It refers to a group of people defined by their race, colour, and nationally (including citizenship) ethnic or national origins.
Religion and belief	Religion has the meaning usually given to it, but belief includes religious and philosophical beliefs including lack of belief (such as Atheism). Generally, a belief should affect someone's life choices or the way they live for it to be included in the definition.
Sex	A man or woman
Sexual orientation	Whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes.

Source: Equality Act, 2010 and Equality and Human Rights Commission, 2019

For the purposes of this EqIA, 'equality groups' have been identified within certain protected characteristics, based on the desk-based evidence review, to improve the assessment. Equality groups are people who share one or more protected characteristics. These may be groups of people such as children, women, or ethnic minority groups. Equality groups refer to the groups of people who are protected under the Equality Act.

- Within ‘age’, all age ranges are considered, but specific sub-groups include children (aged under 16 years), younger people (aged 16-24 years), and older people (those aged 65 or over).
- Within ‘race’, all races and ethnicities are considered, but the sub-group of ‘minority ethnic groups’ is identified to refer to non-White British communities.
- Within ‘religion and belief’, all religious and belief groups are considered, but the term ‘minority faith groups’ refers to religious groups who are not Christian (Buddhist, Hindu, Jewish, Muslim, Sikh, and ‘other’).
- Within ‘sexual orientation’ and ‘gender reassignment’, all sexual orientations and gender statuses are considered, but the ‘Lesbian, Gay, Bisexual, Transgender +’ (LGBT+) community is considered together.
- Within ‘sex’, the sub-groups of men and women are used.
- Within ‘pregnancy and maternity’, pregnant women are reported as a sub-group where the effect only relates to pregnancy.

3.1.1 Equalities related work

The EIA scoping report sets out the proposals of the Proposed Development and undertakes an initial scoping of the potential impacts of the Proposed Development. The potential impacts that that need to be considered are set out in Table 3.1 and 3.2 and are drawn from interfacing chapters in the EIA including Community, Human Health, Sound, Noise and Vibration, Air Quality, Landscape and Visual and Traffic and Transport.

3.1.2 Evidence from published literature

Appendix A sets out the findings from the desk-based evidence review. The findings for the evidence review highlight why and how certain equality groups are more susceptible to experience certain effects as a result of the Proposed Development. The evidence review considers the different potential effects and draws on published literature to show how these ought to be considered in the context of the Proposed Development. The sources considered as part of the evidence review are listed in Appendix C.

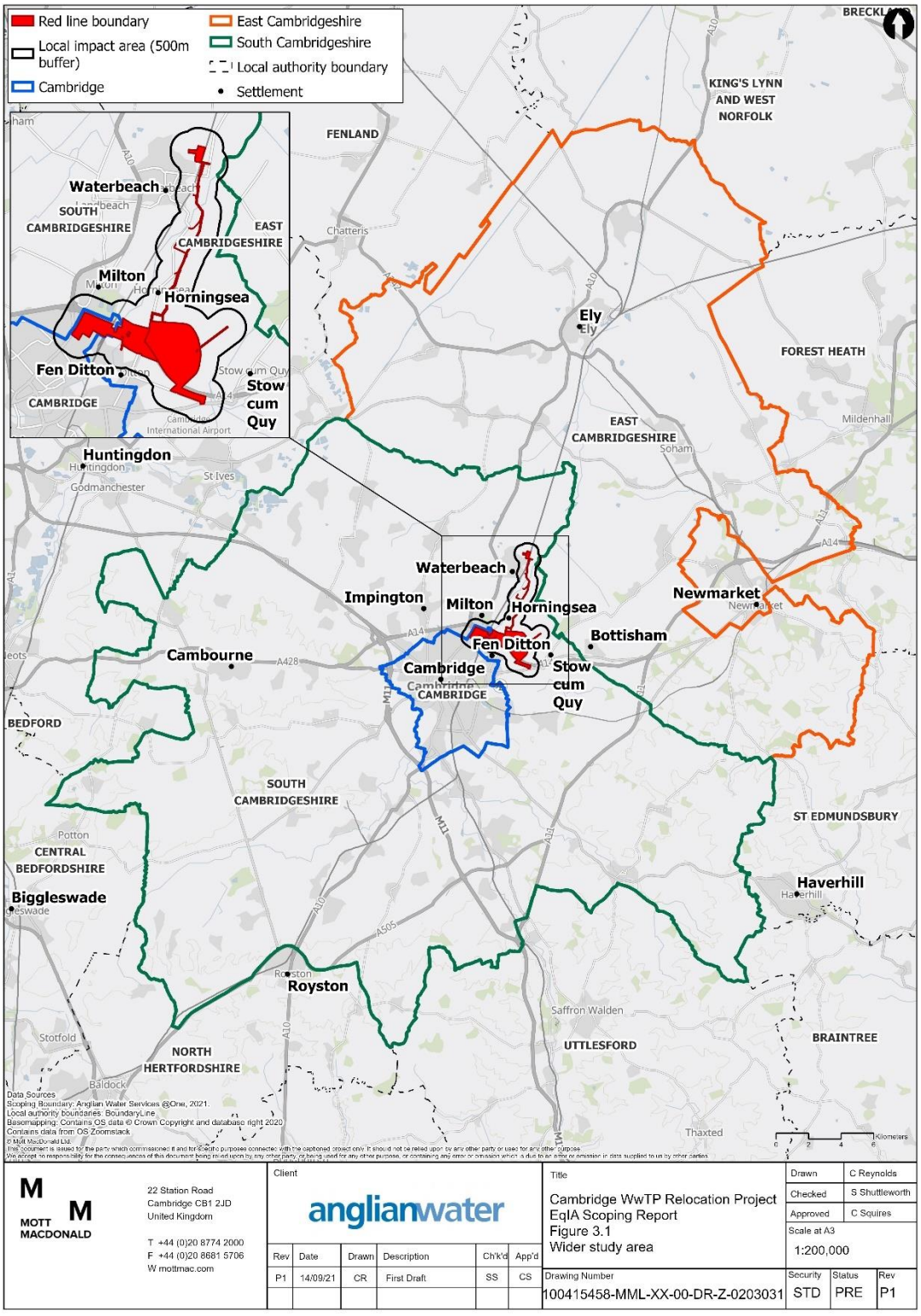
3.2 Geographic scope (study area)

The activities associated with the Proposed Development, described in Chapter 2, are split into three distinct activity ‘zones’. These are:

- Core zone: proposed WWTP, earth bund and surrounding area including the features of the proposed landscape and habitat masterplan and proposed improved public access
- Waste water transfers and final effluent: existing Cambridge WWTP, underground transfer pipelines from existing Cambridge WWTP to proposed WWTP, final effluent pipeline, final effluent outfall; and
- Waterbeach zone: transfer pipeline to proposed WWTP.

The EqIA study area has been determined as 500m from the EIA Scoping boundary. This study area was chosen as it incorporates the extent of effects from interfacing topics in the EIA, that are considered as part of this EqIA. The EIA Scoping boundary, study area and East and South Cambridgeshire district boundaries are shown in the figure below.

Figure 3.1: Map of wider study area



Source: Mott MacDonald (2021) and Ordnance Survey (2021)

3.3 Temporal scope

The phases of construction and operation for the Proposed Development guide the temporal scope for the EqIA. As the Proposed Development would be constructed and implemented over a four-year period, effects on equality groups across the entirety of this timeframe need to be considered.

The earliest construction is expected to start is 2024. Main works construction would commence in early 2025, followed by tunnel construction in mid-2025. Following a period of progressive commissioning, commencing autumn 2026 the proposed WWTP is planned to be fully operational in 2028.The EqIA considers the duration of effects throughout this period where information is available.

The Proposed Development is scheduled to be fully operational by 2028. The EqIA will consider the longer-term effects of the Proposed Development, including duration and the years that these effects may be most apparent where information is available.

3.4 Demographic profile

In order to gain further insight into the local community and potential impacts of the Proposed Development, existing socio-demographic data has been reviewed and analysed to establish the composition of the local population living in the area. The Office for National Statistics (ONS) 2011 census data and mid-year estimate figures (2019) have been used. The figures for Cambridge, South Cambridgeshire and East Cambridgeshire[7] have been considered in comparison to the East of England region and English national figures. Local area demographic data aids understanding of how potential impacts of the Proposed Development may affect different equality groups.

More detailed demographic analysis of the area – including density maps of equality groups and detailed figures about the total population for the study area, Cambridge, South Cambridgeshire, East Cambridgeshire, East of England, and England – can be found in Appendix B.

- The proportion of young people in the study area (9%) is considerably lower than Cambridge (22%) averages, but broadly in line with East Cambridgeshire (8%), South Cambridgeshire (8%), East of England (10%) and England (11%) averages.
- 13% of the total population in the study area have a disability or long-term health problem, which is in line with Cambridge average of 13%, East Cambridgeshire average of 15% and South Cambridgeshire average of 14%. However, the proportion of disabled and people with long term health problem in the study area is considerably lower than the East of England (17%) and England (18%) averages.
- The proportion of White British population in the study area is 81.3%. This figure is considerably higher than the Cambridge average of 66%, but lower than East Cambridgeshire (89.7%), South Cambridgeshire (87.3%) and East of England (85.3%) averages. White British population in England is broadly in line with that of the study area.
- The proportion of people from ethnic minority groups in the study area is 18.7%, which is considerably lower than Cambridge average of 34% and broadly in line with the national average of 20.2%. In comparison, the proportion of ethnic minorities in East Cambridgeshire, South Cambridgeshire and East of England are all lower than the proportions in the study area.

[7] South Cambridgeshire and East Cambridgeshire have both been included as part of the demographic profile as the study area crosses the boundary of the two Local Authority areas.

- The Christian population in the study area (53.7%) is significantly higher than that of Cambridge (44.8%) and lower than that of East Cambridgeshire (62.3%), South Cambridgeshire (58.8%), East of England (59.7%) and England (59.4%).
- Those who belong to a minority religion in the study area make up 5% of the population, which is considerably lower than that of Cambridge (8.3%) and England (8.7%). In comparison, the study area has a higher proportion of people from minority religion than East Cambridgeshire (1.6%). It is in line with South Cambridgeshire (3%) and East of England (5.2%).

3.5 Potential effects of the Proposed Development

Based on the description of the Proposed Development set out in Chapter 2, different equality groups could be affected by various activities. These activities may give rise to a number of potential effects, occurring during the construction or operational phases of the Proposed Development, which are set out in Table 3.1 and Table 3.2. The tables outline the geographic area expected to experience each type of effect and a preliminary view on which equality groups may be affected by each effect, informed by an initial review of literature presented in Appendix A.

Table 3.2: Potential equality effects during the Proposed Development's construction phase

Impact theme	Potential equality effect	Project zone potentially affected	Equality groups that could be affected
Impacts due to noise exposure	The Proposed Development is anticipated to result in temporary changes to noise and vibration during construction. Noise sensitive areas will be 300m from any construction works (including the main treatment site, pipelines, access roads and construction compound). Noise sensitive areas and receptors include residential properties and community facilities that are used by equality groups such as places of worship, schools and community centres. Changes in noise and vibration has the potential to result in equality effects.	Core Zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • Disabled people
Changes to air quality	The Proposed Development is anticipated to result in temporary changes to air quality during construction, associated with dust, particulate matter PM_{10} and nitrogen dioxide (NO_2). An Air Quality Management Area (AQMA) is identified as being 350m from the Proposed Development and 200m from the proposed construction traffic routes.[8]	Core Zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • People from ethnic minority groups • Disabled people • Pregnant people
Changes to landscape and visual environment	The Proposed Development has the potential to result in disruption to local visual and landscape characteristics during construction. Visual receptors in Landscape Character Areas (LCAs) of Fen Ditton, Horningsea, Stow cum Quay and Waterbeach.	Core Zone Transfer and final effluent zone Waterbeach transfer zone	• Older people • Disabled people • Children
Changes in traffic flow	The Proposed Development is likely to increase traffic flow in local and strategic highway network during construction. HGV's, LGV's and works vehicles would access the site from A14, Horningsea Road or Low Fen Drove Way via High Ditch Road. It is considered that an increase in	Core Zone Transfer and final effluent zone	• Children • Older people • Disabled people

[8] Mott MacDonald (2021): 'CWWTP EIA Scoping Report'

Impact theme	Potential equality effect	Project zone potentially affected	Equality groups that could be affected
	HGV movements has the potential to impact on delay and accident rates at junction 34 and junction 35 (The Quy Interchange) of the A14. There is also a potential for construction vehicle movements to impact the local road network, along the B1047 Horningsea Road, High Ditch Road and the A1303 Newmarket Road.	Waterbeach transfer zone	
Changes to the pedestrian and cycle environment	A temporary disruption to pedestrians and cyclists, and people living or working along the construction route may arise from the construction works for the site access and on-site works. These may require traffic management, which could impact severance, amenity and delay. Therefore, there will be potential equality effect due to the changes in non-motorised user routes.	Core zone Transfer and effluent zone Waterbeach transfer zone	• Children • Disabled people • Older people • Women • LGBT+ people
Feelings of personal safety and security	The Proposed Development has the potential to change perceptions of personal safety and security during the construction phase, as well as in the transfer of effluent and pipelines. There is potential for trespass, anti-social behaviour (such as vandalism) and crime if this is unmanaged. This is likely to result in equality effects.	Core zone Transfer and effluent zone Waterbeach transfer zone	• Young people • Older people • Disabled people • People from ethnic minority groups • LGBT+ people • Men • Women
Potential generation of employment associated with the Proposed Development	The Proposed Development has the potential to support and/or create new employment opportunities during construction. A construction workforce will be required to deliver the infrastructure necessary to build the proposed CWWTP, maintain the existing Cambridge CWWTP and carry out pipeline and effluent transfer.	Core zone Transfer and effluent zone Waterbeach transfer zone	• Young people • Disabled people • People from ethnic minority groups • Men
Presence of construction workforce within the local area	The Proposed Development is likely to result in an increase in construction workers in the local area. The presence of construction workers may give rise to local people feeling unsettled, and their perceptions of their community may change. Such effects are most likely to be felt by those living adjacent to construction sites, or by those who use local facilities near construction sites.	Core zone	• Older people • Disabled people • Women
Health and safety risks	The Proposed Development is likely to require storage, handling and transfer of hazardous chemicals or pollutants. Several equality groups may be affected by the associated health and safety implications if this is not properly managed.	Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • Disabled people
Impacts on open space, PRoW and recreational areas	The Proposed Development is likely to cause temporary disruption in access to open space, PRoW and recreational areas during construction. This includes disruption to the River Cam navigation as well as land based recreational resources.	Core zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Young people • Older people • Disabled people

Table 3.3: Potential equality effects during the Proposed Development's operation phase

Impact theme	Potential equality effect	Project zone potentially affected	Equality groups that could be affected
Changes to noise exposure	The operation of the Proposed Development is likely to result in permanent changes to noise due to operation of fixed plant and machinery associated with the proposed WWTP. This has the potential to result in equality effect.	Core zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • Disabled people
	The operation of the Proposed Development may result in permanent changes in road traffic noise levels at the closest noise sensitive receptors located on access routes to the site. This has the potential to result in equality effects.	Core zone	
Changes to air quality	The Proposed Development is anticipated to result in emissions of NO_2 and PM_{10} due to operational vehicles. This has the potential to result in equality effects in nearby receptors. There may also be air quality impacts as a result of the on-site CHP or boiler plant, and from the release of emissions during operation.	Core Zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • People from ethnic minority groups • Disabled people • Pregnant people
Changes to landscape and visual environment	The Proposed Development may result in permanent effects on the character of the Eastern Fen Edge LCA and River Cam Corridor LCA. The Proposed Development would be a new feature in the rural landscape. The operation of the Proposed Development would also result in permanent changes to the views from Low Fen Drove Way, B1047 Horningsea Road and the A14. These changes have the potential to cause equality effects.	Core Zone Transfer and final effluent zone Waterbeach transfer zone	• Older people • Disabled people • Children
Changes in traffic flow	The operation of the Proposed Development is likely to result in a reassignment of all operational vehicles across the strategic and local road network. Vehicle trips, including the 129 HGVs and trips made by pedestrians and cyclists that currently travel to and from the existing Cambridge WWTP would move to routes to and from the new site.	Core zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • Disabled people
Changes to the pedestrian environment	The pathways within the landscape proposals as part of the Proposed Development, and the associated improved connectivity to the PRoW network, may provide new and or different opportunities for exercise and access to outdoor spaces. This may have associated beneficial health and wellbeing effects, including mental health.	Core zone Transfer and final effluent zone Waterbeach transfer zone	• Children • Older people • Disabled people
Health and safety risks	Operation of the Proposed Development may result in health and safety risks from polluting water (toxicity and disease risk) from discharges to the River Cam, as well as from hazardous waste.	Core zone	• Children • Older people • Disabled people

Tables 3.2 and 3.3 set out preliminary analysis of the potential equality effects of the Proposed Development. Potential effects will be assessed as part of the full EqIA. The EqIA will continue to review evidence, supplemented with stakeholder engagement, once this has been undertaken.

Preliminary assessment indicates that no equality effects are expected to be experienced in relation several impact themes. These are:

- Feelings of personal safety and security during operation; and
- Impacts on open space, PRoW and recreational areas during operation

Protected characteristics that are not mentioned in the above tables are:

- Gender reassignment; and
- Marriage and civil partnership.

While these groups are not expected to experience any equality effects, they have not been scoped out of the EqIA at this stage. The main EqIA report will keep effects on people with these protected characteristics under review.

3.6 Proposed management measures for potential equality effects

Table 3.4 below shows the Proposed Development mitigation and management measures for each of the identified impact themes in construction and operation.

Table 3.4: Proposed management measures in construction and operation

Impact theme	Proposed mitigation (construction)	Proposed mitigation (operation)
Changes to noise exposure	Measures to mitigate noise and vibration would include good practice implemented through the development of a Noise and Vibration Management Plan (NVMP), Construction Traffic Management Plan (CTMP) and Construction Environmental Management Plan (CEMP). Likely significant effects arising during the Construction Phase would be mitigated by secondary mitigation in the form of measures set out in the CoCP. Specific mitigation measures would also be included to avoid and prevent potential significant adverse effects during construction. These may include acoustic screening around construction working areas and compounds, sequencing of works, and restricting construction working hours to avoid more sensitive time periods such as evenings, night-time or weekends[9].	Appropriate mitigation design would aim to minimise any potential adverse noise impacts at the nearest noise sensitive receptors. For instance, selection of low noise generating equipment, implementation of noise reduction to specific plant items and the use of acoustic barriers will help mitigate any potential significant adverse noise effects in operation.
Changes to air quality	The risk of construction dust effects would be mitigated through standard practices which will be set out within the CoCP.	The Proposed Development would be required to meet the emissions limit requirements and best practice guidance within the IAQM documents. The Proposed Development would be designed to minimise dispersion of emissions, with further mitigation to be specified for significant effects identified within the full EIA chapter.
Changes to landscape and visual environment	Primary mitigation measures would include minimising the footprint of the proposed development to reduce the loss of trees and designing construction lighting to minimise light pollution. Trees will also be planted in gaps along the Horningsea Road and Low Fen Drove Way. Further mitigation would be provided in the CEMP.	Several primary mitigation measures would be implemented such as implementing a landscape masterplan to include new woodland, tree belts, hedgerows, meadows and long-term screening of the new structures from the surrounding area. The new buildings, fencing and surfacing would be designed to minimise their prominence in the surrounding landscape. In addition to the key primary mitigation, secondary measures would

[9] Anglian Water (2021) Cambridge Waste Water Relocation Project EIA Scoping Report

Impact theme	Proposed mitigation (construction)	Proposed mitigation (operation)
	Likely significant effects arising during the construction phase would be mitigated by secondary mitigation in the form of measures set out in the CoCP.	involve setting out a landscape and ecological management plan (LEMP) and ensuring the lighting of the proposed WWTP would be with sensors to minimise the visual obstruction as much as possible.
Changes in traffic flow	There are several mitigation measures proposed for the potential changes in traffic flow during construction. These include a selection of construction traffic routes to avoid sensitive receptors and reducing the vehicle movements around the site through: • Designing of any diversion routes to minimise impact of construction vehicles on existing transport routes. • Timing of construction works to avoid peak transport network periods. • Implementing construction methods such as pre-casting of project components. Secondary measures include implementation of CoCP, construction phase management plans such as the Travel Plan and Construction Traffic Management Plan (CTMP) to ensure good practice. This would be through: • Limiting the number of HGVs, LGVs and cars and phasing out construction activities to minimise the impact upon the local road network • Engaging with vulnerable road users and ensure road safety during traffic management works and traffic control measures • Encouraging night works where possible • Enforcing the requirement to follow procedures for the temporary or permanent closure or diversion of roads, PRoW or accesses.	Design and mitigation strategies would be in place to identify alternative design and route options that avoid introducing or worsening severance. In addition, road alignment would be altered to minimise severance to communities and disruption to pedestrian, cyclists or horse riders in operation. Design of connections from the proposed WWTP to the existing SRN would aim to avoid traffic impacts in construction. Where avoidance of impacts is not possible in operation, measures to reduce the severity and or magnitude of potential impacts may involve altering road alignments to minimise severance to communities.
Changes to the pedestrian environment	CoCP, construction phase management plans such as the Travel Plan and Construction Traffic Management Plan (CTMP) will be in place to mitigate the potential impact on pedestrian routes, as well as the NMU routes in general. Further good practice measures include limiting the number of HGV's required for delivery during peak construction and limiting access to worksites during peak periods. The completion of CEMP will also provide more detail on the specific diversion routes and the impact on pedestrian routes.	See above - no further mitigation needed
Feelings of personal safety and security	Measures set out in the CoCP would provide safety measures to mitigate against potential impacts. This includes temporary lighting that would be provided during the construction phase in construction laydown areas, parking facilities and office areas.	Site security arrangements for the Proposed Development will be in line with the requirements set out the Construction (Design and Management) Regulations 2015 and appropriate levels of security (personnel / CCTV) will be provided. Road and area lighting will also be provided around the site to ensure the safety of staff and visitors. A security fence will also enclose the operational areas of the

Impact theme	Proposed mitigation (construction)	Proposed mitigation (operation)
		WWTP, with automated gates to be provided to increase site safety.
Potential generation of employment associated with the Proposed Development	No mitigation needed	No mitigation needed
Presence of construction workforce within the local area	The CoCP which will be developed will include liaison with the nearby communities throughout the construction period.	Not applicable
Health and safety risks	Contracts with companies involved in the construction works would incorporate health and safety regulations to ensure best practice guidance is adhered to. Relevant mitigation would involve minimising noise and vibration levels, traffic and transport severance, and reducing emissions, which will be outlined in the corresponding specialist chapters in the EIA Scoping Report.	No further operational health and safety mitigations have been proposed at this stage of the assessment. Mitigation for operational health and safety risks will be reviewed and updated once more information is available.

4 Methodological approach

This chapter outlines the proposed methodological approach to EqIA including an overview of the approach to identifying and assessing impacts, and the difference between differential and disproportionate effects. This methodological approach will be utilised in the main EqIA report, although several components have already been utilised to deliver this scoping report.

4.1 EqIA guidance

Although guidance on undertaking EqIA is limited with no statuary guidance for the process, national good practice guidance to inform the process exists. Such guidance includes the following:

- Government Equalities Office (2011): 'Equality Act 2010 – Public Sector Equality Duty What Do I Need to Know? A Quick Start Guide for Public Sector Organisations', which identifies a range of requirements around EqIA.
- Equality and Human Rights Commission (2014): 'Meeting the Equality Duty in Policy and Decision-Making', which covers areas of EqIA good practice.
- Equality and Human Rights Commission (2014): 'Engagement and the Equality Duty: A Guide for Public Authorities', which provides suggestions for effective engagement with equality groups.
- Equality and Human Rights Commission (2015): 'The Public Sector Equality Duties and financial decisions – a note for decision makers'.
- Equality and Human Rights Commission (2017): 'Equality Act 2010 – Handbook for Advisors', which covers the general requirements of the Equality Act 2010.

According to the guidance published by the EHRC[10], a robust EqIA should consider the following questions:

- Is the purpose of the policy change/decision clearly set out?
- Has a person suffered a disadvantage? Is any disadvantage 'because of' a protected characteristic?
- Have those affected by the policy/decision been involved?
- Have potential positive and negative effects been identified?
- Are there plans to alleviate any negative effects?
- Are there plans to monitor the actual effects of the proposal?

The methodology for the EqIA will draw on this guidance to inform the identification and assessment of equality effects.

[10] Equality and Human Rights Commission (2015): 'The Public Sector Equality Duties and financial decisions – a note for decision makers'

4.2 Approach to this EqIA

The approach to this EqIA is outlined below and takes the following key steps:

Source: Mott MacDonald, 2021

This scoping report has begun the process of building an understanding of the Proposed Development, and reviewing evidence, policy, and data relating to the Proposed Development, to establish a preliminary appraisal of likely effects and to establish the scope and methodology for further assessment.

4.3 Steps to be undertaken to establish equality effects

4.3.1 Understanding the Proposed Development and its drivers

Review of CWWTPR project documentation: A review of documentation associated with the Proposed Development to better understand its overarching objectives, the challenges it aims to address and how it will address them. Policy and legislative drivers for the Proposed Development will be reviewed to better understand the project context. This activity has already commenced as part of this EqIA scoping report.

4.3.2 Reviewing existing evidence

Desk-based evidence and literature review: In order to better understand the potential risks and opportunities arising from the Proposed Development, and to identify any associated mitigations and opportunities, relevant published literature from governmental, academic and third sector sources will be reviewed. This allows for the identification of potential risks and opportunities typically associated with the construction and operation of waste water treatment plants, to understand whether they apply to this project. This activity has already commenced as part of this EqIA scoping report.

Review of technical assessments from other technical disciplines: The findings from other technical disciplines will be reviewed in order to inform the EqIA. The EIA disciplines of Community, Health, Air quality, Landscape and Visual, Noise and Vibration, Odour and Traffic and Transport will be predominantly reviewed to understand where effects being reported may result in equality effects.

Demographic analysis of the EqIA scoping boundary and surrounding area: A social and demographic profile of the local population will be compiled alongside wider social and

demographic data to build a picture of the area in which the Proposed Development is located. This will include the review and mapping of local community resources, businesses and residential properties so that potential impacted stakeholders could be identified, particularly in the context of equality impacts.

4.3.3 Stakeholder engagement

Engaging with stakeholders: Stakeholders relevant to equality will be identified and engaged using a semi-structured topic guide. Data from engagement activities will be analysed against key themes to inform the impact assessment. Wider engagement will be undertaken as part of the CWWTPR project, minutes from these meetings will be shared and will be reviewed against its relevance to the findings of the EqIA. Where the stakeholder or information from the meeting is relevant to the EqIA it will be analysed and incorporated into the EqIA.

4.3.4 Impact assessment

Assessing potential equality effects: Potential impacts will be assessed using the evidence gathered in the stages described above. Assessment of impacts will be undertaken in light of the sensitivity of the affected parties to the Proposed Development, and distribution of people with protected characteristics amongst the population within close proximity to the proposed WWTP. Both risks and opportunities will be considered in the context of the implementation of mitigation measures.

4.3.5 Managing equality effects

Approach to mitigation: Based on the potential equality effects identified, appropriate mitigation and management measures will be identified for relevant technical disciplines. Mitigation recommendations from the EqIA will be shared with the relevant technical disciplines and incorporated into the EIA at an early stage. Recommendations will be shared with the design team to be taken forward into the final design. Such mitigation will help to manage the construction and operation processes in a way that minimises the potential adverse equality effects on the local population.

4.4 Approach to identifying impacts

4.4.1 Assessing impacts

The assessment of impacts across the EqIA process is predominantly qualitative, and describes, where possible and applicable:

- Whether the impact is positive, negative, or neutral;
- Whether the impact is a direct relationship (e.g. construction noise) or an indirect relationship (e.g. disrupted access to services), affecting lives of people from protected characteristic groups;
- The duration, frequency and permanence of the impacts;
- The severity of the impact and the amount of change relative to the baseline;
- The size of the population experiencing the impact or the extent of usage of a particular affected facility or service;
- Local, regional and national equality priorities;
- The views of local people, captured through consultation and engagement; and
- The capacity of the affected groups to absorb the impacts (their resilience), including their access to alternative facilities, resources or services.

4.4.2 Types of equality effect

Equality effects arise *disproportionately*, and *differentially*. For people with protected characteristics who live or work in the study area, or in the wider area, changes could affect them more (‘disproportionately’), or in a particular way (‘differentially’).

4.4.2.1 Disproportionate effects

Disproportionate effects occur where there is likely to be a comparatively greater effect on people from a particular protected characteristic group than on other members of the general population. Disproportionate effects may occur if the affected community comprises of a higher-than-average proportion of people with a particular protected characteristic, or because people from a particular protected characteristic group are the primary users of an affected resource.

Identifying disproportionate effects involves determining the demographic composition of the area where impacts are expected to arise. This identifies the numbers and proportions of people from protected characteristic groups around the proposed WWTP study area with local, regional and national data used as comparators.

4.4.2.2 Differential effects

Differential effects occur where people with protected characteristics are likely to be affected in a different way to other members of the general population. This may be because groups have specific needs or are susceptible to the impact due to their protected characteristics. These effects are not dependent on the number of people affected.

Desk-based research and stakeholder engagement findings are analysed to explore the potential impact of the Proposed Development. The output of this work identifies those protected characteristic groups that are likely to experience impacts arising from the Proposed Development and explains why.

5 Summary and next steps

5.1 Summary

This EqIA scoping analysis has been undertaken to demonstrate Anglian Water's commitment to UK equality legislation, namely the Equality Act, as well as the NPS for Waste Water.

The assessment has identified what the potential effects of the Proposed Development might be on equality groups. The report sets out the initial analysis of how the Proposed Development may affect different sections of the community, ensuring Anglian Water effectively plans for and can manage the equality effects of the proposed WWTP.

A review of relevant published governmental, academic and third sector evidence has been conducted to identify the range of potential effects and risks on people with protected characteristics as a result of the Proposed Development. Potential effects included those associated with the environment (changes in noise exposure, air quality, the local landscape, active travel, traffic and public transport, and the pedestrian environment, employment (job creation), road safety and feelings of personal safety and security.

5.2 Next steps

The EqIA will be included as part of the DCO Application and take account of consultation feedback received on the EqIA scoping Report. This EqIA scoping report will be used to inform the main EqIA.

6 Abbreviations

Acronym / Abbreviation	Detail
AAP	Area Action Plan
AOD	Above Ordnance Datum
AWS	Anglian Water Services
CWS	County Wildlife Site
CWWTP	Cambridge Waste Water Treatment Plant
CWWTPR	CWWTP Relocation
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EqIA	Equalities Impact Assessment
HE	Homes England
HIF	Housing Infrastructure Fund
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NPPF	National Planning Policy Framework
PCG	Protected Characteristics Groups
PE	Population Equivalent
PRoW	Public Right of Way
PINS	Planning Inspectorate
SSSI	Site Special Scientific Interest
STC	Sludge Treatment Centre
WRC	Water Recycling Centre
WWTP	Waste Water Treatment Plant

A. Literature review

This appendix presents the findings of a desk-based review of wider evidence and literature relating to the interaction of equality issues with infrastructure schemes of a similar nature. The findings have been provided thematically to demonstrate the potential impact associated with the Proposed Development. In line with the Equality Act, where these impacts are more likely to affect those with a protected characteristic, this has been highlighted.

6.1 Changes to noise exposure

The Proposed Development has the potential to change noise levels in both construction and operation phases. Changes in exposure to noise has been linked to health outcomes for children, older people and disabled people as these groups are vulnerable to such changes.

Changes in noise levels in proximity to community facilities used by children, such as schools and nurseries, can negatively impact their concentration and long-term cognitive development. Longitudinal studies on the impact of unwanted noise on children and infants also show that increased noise exposure can adversely impact children's psychological and physiological wellbeing, sleep quality and long-term memory. Children are especially vulnerable as they may be unable to recognise or cope with dangerous noise levels, and because they are in a critical period of cognitive development and learning.[11]

The health impacts of increased noise exposure on older people include cardiovascular disease, sleep deprivation, stress and anxiety. Prolonged exposure to construction and transportation noise can cause a higher prevalence of cardiovascular disease, stroke and dementia in affected communities. For example, research on noise levels and health outcomes shows that older people living near noisy roads may have increased stroke risk.[12] Older people are also more susceptible to changes in noise as they are more likely to be home during the day when construction / noise generating activities take place.

Disabled people are also particularly susceptible to change in noise levels. For example, an increase in noise can affect people with learning disabilities and lead to challenging behaviours. Individuals with mental health conditions have been found to be especially sensitive to health effects associated with an increase in noise levels, such as sleep disturbance, annoyance and stress. Noise may also discourage disabled people from participating in activities outside home, leading to social isolation.[13] People with hearing impairment are also disproportionately affected by the masking effects of background noise on speech.[14] Prolonged, excessive noise can therefore compound communication issues, potentially leading to issues around community cohesion and social isolation.

6.2 Changes to air quality

During the construction and operation phases, CWWTP has the potential to change air quality in the local area. Adverse changes in air quality are most likely to impact children, older people, disabled people, people from ethnic minority groups and those who are pregnant, due to the particular sensitivity of these groups to certain airborne pollutants.

[11] Stansfield, S. and Clark, C. (2015): 'Health effects of noise exposure on children'

[12] NHS (2015): 'Elderly living near noisy roads have increased stroke risk'

[13] NCBI (2016): 'Environmental noise annoyance and mental health in adults: findings from cross-sectional German health update study'

[14] Clavier O, Le Prell C (2017): 'Effects of noise on speech recognition: challenges for communication by service members'

There is a direct relationship between health and air quality. Research undertaken by the Royal College of Physicians estimates that 40,000 deaths every year in the UK are attributable to exposure to outdoor air pollution.[15] According to the Department for Environment, Food and Rural Affairs (DEFRA), 'poor air quality is currently the largest environmental risk to public health in the UK'.[16] The concentration of air pollutants tends to be highest in towns and cities, and road transport is a major source of emissions such as hydrogen oxide (35% of total emissions) and particulate matter (PM).[17] DEFRA has estimated that particulate air pollution alone reduces life expectancy of people in the UK by six months on average, imposing an estimated cost of around £16 billion per year.[18] There is also emerging evidence for an association between air pollution and COVID-19 disease[19], putting those who are disproportionally affected by air pollution at greater risk.

Children have faster breathing rates and their lungs are still developing which can make them more susceptible to changes in particulate matter concentrations in the air. Children can therefore be negatively affected by reduced air quality. Children are also more likely to spend time outdoors, where changes in air quality and pollution levels tend to be the greatest.[20]

Guidance published by DEFRA highlights that older people are more likely to have respiratory or cardiovascular illness when compared to other age groups, making them more susceptible to the effects of reduced air quality.[21]

Those who are pregnant living in areas with poor air quality are at risk of giving birth to a baby with a low birthweight, which can lead to an increased risk of the child developing chronic disease in later life. Research conducted by Royal College of Physicians indicates that air pollution may negatively impact upon the growth, intelligence and weight of babies in the womb.[22]

People who live in deprived areas can be more susceptible to the impacts of air pollution, potentially because they tend to be in poorer health than the rest of the population.[23] The vulnerability of this group may also be because more deprived areas are often closer to busy roads in large urban areas.[24] For those living in deprived areas, poor housing and often lack of access to green spaces may also increase their time spent in areas with high levels of air pollution, [25] compounding issues for a group who already suffer disproportionately from health inequalities. In rural areas it was found that differences in air quality was greater between deprivation deciles when compared to urban areas, with the exception of those living in the most deprived decile, results suggested this may be attributed to the relatively low number of people living in most deprived rural areas (approximately 2% of the British population).[26]

People from all ethnic minority groups except Indian, Chinese, White Irish and White Other groups are more likely than White British people to live in the most overall deprived 10% of neighbourhoods in England.[27] Asian people as a whole (15.7%) are the most likely out of all

[15] Royal College of Physicians (2016): 'Every breath we take: the lifelong impact of air pollution'

[16] DEFRA (2018): 'Clean air strategy'

[17] DEFRA (2019): 'Air quality: Explaining air pollution – at a glance'

[18]DEFRA (2019): 'Air quality: Explaining air pollution – at a glance'

[19] Miyashita L, Foley G, Semple S, Grigg J (2020) Traffic-derived particulate matter an angiotensin-converting enzyme 2 expression in human airway epithelial cells

[20] Asthma UK (2020): 'Air pollution and asthma'

[21] DEFRA (2013) 'Effects of air pollution'

[22] Royal College of Physicians (2016): 'Every breath we take: the lifelong impact of air pollution'

[23] British Lung Foundation (2016): 'How air pollution affects your children's lungs'

[24] Greater London Assembly (date unknown): 'Health and exposure to pollution'

[25] Royal College of Physicians (2016) 'Every breath we take: The lifelong impact of air pollution'

[26] Milojevic, A. et al (2017): 'Socioeconomic and urban-rural differentials in exposure to air pollution and mortality burden in England'

[27] The most overall deprived 10% of neighbourhoods are measured based on the index of multiple deprivation, which combines 7 types of deprivation.

ethnic groups to live in the most deprived neighbourhoods, followed by Black people (15.2%). White people are the least likely to live in the most deprived neighbourhoods (9.0%).[28]

6.3 Changes to landscape and visual environment

During the construction, operation and reinstatement phases of CWWTP there will be a change to the landscape and local visual environment as a result of the new infrastructure being provided. Such changes may impact groups particularly sensitive to the changes in visual stimuli including older people and disabled people, particularly those with autism.

As people age, visual acuity tends to worsen, increasing the risk of eye disorders such as cataracts. Due to sensory changes, eyes become more sensitive to glare which can make reflective and shiny surfaces difficult, and even painful, to see clearly.[29] Older people are therefore more likely to be more sensitive to light pollution and rapid visual changes around them.

Research has shown that almost 90% of children with autism spectrum conditions develop atypical sensory experience, which can involve hypersensitivity to visual stimuli. This results in more detail-focused perception in people with autism, so that any minor visual change might have detrimental impact on quality of life and socio-psychological wellbeing.[30]

6.4 Potential changes in traffic flow

CWWTP will change traffic congestion and vehicle movements during construction and operation at the different project zones. Any potential increase in traffic is associated with severance for both pedestrians and road users, which can differentially impact children, older people, and disabled people.

Changes in road traffic levels may reduce children's access to community and recreational facilities due to road severance and traffic delays.[31] Increased traffic in proximity to schools, or community facilities that are frequently used by children can also impact their concentration and long-term cognitive development.[32] Changes in traffic levels in construction could also affect how older people interact with community facilities.[33] Older people may find it difficult to access public spaces further away from their home or integrate into new social networks, which could be required as a consequence of severance caused by increases in road traffic.[34] This is because mobility declines in older people, resulting in living and travelling in the most accessible and immediate vicinity.[35]

Research shows that the presence of vehicular traffic can present a barrier for disabled people accessing community resources. National Travel Survey data shows disabled people are generally more likely to experience travel difficulties in the daily trips that they make.[36] Disabled people who travel by car are more likely to report difficulties due to congestion and roadworks, especially when the severity of the disability the person experiencing increases.[37] Short-term change to transport networks and road alignment can act as a barrier for disabled people

[28] Ministry of Housing, Communities and Local Government (2020): 'People living in deprived neighbourhoods'

[29] Sensory Trust (2017): 'Designing landscapes for older people' Available at: [redacted]

[30] Bakroon, A. and Lakshminarayanan, V. (2016): 'Visual function in autism spectrum disorders: a critical review'

[31] Hiscock, R. and Mitchell, R (2011): 'What is needed to deliver places that provide good health to children?'

[32] Institute of Education (2001): 'The effect of travel modes on children's mental health, cognitive and social development: a systematic review'

[33] DfT (2017): 'Health impact analysis for the draft Airports National Policy Statement'

[34] NatCen (2019): 'Transport, health and wellbeing: an evidence review for the Department for Transport'

[35] Noon, R and Ayalon, L (2018): 'Older adults in public open spaces: age and gender segregation'

[36] Department for Transport (2019): 'National Travel Survey: 2018'

[37] Department for Transport (2017): 'Disabled people's travel behaviours and attitudes to travel'

wanting to access community facilities, exacerbating issues such as loneliness and social isolation.[38]

Research has also shown that maternal exposure to traffic-related air pollution has been associated with adverse pregnancy outcomes and health impacts[39]. As a result, changing traffic flows may lead to increased exposure, leading to significant risk of negative mental and physical health effects.

6.5 Changes to the pedestrian environment

During construction, there will be temporary and permanent changes to the pedestrian environment and non-motorised user routes. This can impact several equality groups including disabled people, children, older people, women and lesbian, gay, bisexual and trans (LGBT+) people.

Disabled people can experience challenges in accessing community resources, services and opportunities for social interaction when compared to other sections of the population.[40] This may be due to challenges in navigating the physical environment and pedestrian routes. Any change in pedestrian infrastructure therefore has the potential to make people with mobility differences less independent.[41] Evidence also suggests that having a sensory impairment or disability such as visual and hearing impairment can be a further barrier in accessing bus stops or the pedestrian environment around bus stops.[42]

Children, along with older people, are more dependent on walking than other age groups. [43] Children's limited choice of travel mode means they are more likely to be pedestrians. However, pedestrian injury is the leading cause of accidental death among children in the UK, with an average of one death [37] and seriously injured children every week due to pedestrian accidents.[44]

With age, people are increasingly likely to give up driving due to loss of sensory cognition such as eyesight and reaction time. Older people are therefore more likely to travel on foot to access social contacts and interact with their community in their daily lives. Research findings from a cross sectional study on ageing and pedestrian behaviour in the UK show that the majority of older pedestrians are unable to cross the road safely and in good time.[45] According to the same study, 93% of women and 84% of men aged 65 years and above could either not walk safely or had a walking speed which was too slow to cross the road in good time. Therefore, older people are generally considered to be one of the most at-risk pedestrian groups.[46]

In terms of the pedestrian environment, the upkeep of streets and the design of the environment are recognised as common barriers older people, parents and carers with young children and pregnant people face when using the public realm. Uneven surfaces, steeps hills and a lack of places to rest have been cited in research as reasons older people feel anxious about walking.[47]

[38] Equality and Human Rights Commission (2017): 'Being disabled in Britain: a journey less equal'

[39] Wu J, Jiang C, Douglass-Jaimes G, Bartell S (2013) Travel Patterns during pregnancy: Comparison between Global Positioning System (GPS) tracking and questionairre data

[40] Office for National Statistics (2015): 'Life opportunities survey'

[41] NatCen (2019): 'Transport, health and wellbeing: an evidence review for the Department for Transport'

[42] Social Exclusion Unit (2003): 'Making the connections; final report on transport and social exclusion'

[43] British Youth Council (2012): 'Transport and Young People'

[44] DfT (2018): 'Reported road casualties in Great Britain: 2017 annual report'

[45] Tournier et al (2016): 'Review of safety and mobility issues among older pedestrians' Available at:

[46] Tournier et al (2016): 'Review of safety and mobility issues among older pedestrians'

[47] TfL (2016): 'Older Londoners' perceptions of London streets and the public realm: Final report'

Further research has highlighted other physical barriers such as high kerbs and holes in pavements as challenges faced by older people in accessing the public realm.[48]

Women are more likely to have security concerns as pedestrians than men, with almost two-thirds of women in the UK feeling unsafe walking alone.[49] This is due to the perceived risk of abuse, harassment or general feeling of unsafety due to poor lighting or visibility.[50] Walkability of a neighbourhood is also fundamental factor in influencing the safety perception of women, influenced by lighting, clear signage and safety procedures.[51] Therefore, potential changes in pedestrian environment in construction is particularly likely to affect women.

6.6 Impacts on feelings of personal safety and security

The Proposed Development has the potential to change the feelings of personal safety and security during construction. The Proposed Development may impact feelings of safety and security, largely depending on the provision and the extent of surveillance. Young people, older people, disabled people, people from minority faith groups and ethnic minority groups, LGBT+ groups, women, men and people who live in deprived areas are vulnerable to such changes.

The fear of crime is the anxiety people feel about potentially being victim of crime. This does not necessarily relate to the probability of being a victim of crime, but instead can be influenced by external factors and narratives. Empirical research evidence has revealed that young people are most likely to commit or be victims of low-level disorder and anti-social behaviour.[52]

Women are more likely to have security concerns as pedestrians than men, with almost two-thirds of women in the UK feeling unsafe walking alone.[53] A 2015 community needs assessment for Cambridge City found that women felt unsafe on the streets of Cambridge at night.[54] This is due to the perceived risk of abuse, harassment or general feeling of unsafety due to poor lighting or visibility.[55] Walkability of a neighbourhood is also fundamental factor in influencing the safety perceptions of women, influenced by lighting, clear signage and safety procedures.[56] Therefore potential changes to the local pedestrian environment are particularly likely to affect women.

Young men aged 16 to 19, in particular, are more likely to be victims of crime compared to all other groups. Despite this, research has shown that men are less fearful of crime than women. Of types of crime that are feared by men, violent crime and particularly confrontation and assault by other groups of men, was stated as being one of the most commonly feared crimes.[57]

6.7 Potential generation of employment associated with the Proposed Development

The Proposed Development has the potential to bring new temporary employment opportunities during construction. A construction workforce will be required to deliver the construction of the

[48] Wennberg, H. Phillips, J. and Stahl, A. (2017): 'How older people as pedestrians perceive the outdoor environment: Methodological issues derived from studies in two European countries'

[49] Plan International (2016): 'Almost two thirds of women feel unsafe walking alone after dark'

[50] International Transport Forum (2018): 'Women's safety and security: a public transport priority'

[51] Department for Transport (2020): 'TAG Unit A4.1: Social Impact Appraisal'

[52] British Transport Police Authority (2008): 'Fear of crime and concerns about personal safety on the rail network: summary of findings from existing research, 2008 update'

[53] Plan International (2016): 'Almost two thirds of women feel unsafe walking alone after dark'

[54] Cambridge City Council and Cambridgeshire District Council (2015): 'Joint EqIA for Draft North East Cambridge Area Action Plan 2020'

[55] International Transport Forum (2018): 'Women's safety and security: a public transport priority'

[56] Department for Transport (2020): 'TAG Unit A4.1: Social Impact Appraisal'

[57] British Transport Police Authority (2008): 'Fear of crime and concerns about personal safety on the rail network: summary of findings from existing research, 2008 update'

proposed CWWTP, waste water transfers from the existing Cambridge WWTP to the proposed WWTP and the delivery of the Waterbeach transfer pipeline.

People from ethnic minority groups are disproportionately represented amongst the unemployed.[58] Analysis of the national unemployment trends highlights that the rate of national unemployment is typically almost 8% for people from ethnic minority groups compared with the 4% white British people.[59] Therefore, any additional employment opportunities have the potential to benefit people from ethnic minority groups.

According to government data, disabled people are over a third less likely to be employment than non-disabled people in the UK.[60] Disabled people also have an employment rate that is 28% lower than that of people who are not disabled, indicating the national disability employment gap.

The construction sector has recognised, and embedded inequality issues related to employment. Lack of accessibility, inclusivity, and fairness in pay have created disparities in representation across gender, age, disability, and race. Without appropriate management and employment practices, the Proposed Development could feed into these inequalities, rather than being a catalyst for change.

6.8 Presence of construction workforce within the local areas of project zones

The Proposed Development will require an increase in construction workers in the local area. Construction worker presence in communities, including the potential need for construction worker accommodation, may give rise to groups feeling unsettled as they perceive the composition of their local community to be subject to change. Such effects are most likely to be felt those living adjacent to construction sites, or by those who use local community facilities near the construction sites.

Older people may be impacted as the presence of construction workers into community life could negatively alter their perceptions of social capital. [61] Any reduction in social capital has the potential to affect the use of community facilities and wellbeing of older people as a result.[62] As older people are more likely to experience loneliness and isolation, reduced use of community facilities may further exacerbate these social issues.[63]

As disabled people are more likely to face social isolation, this group may be disproportionately impacted by any changes in access to community facilities as a result of construction workers being present. A report by the Jo Cox Commission for Loneliness found that over half of disabled people report feeling lonely.[64]

Perception of personal safety of women may decrease due to the presence of a construction workforce around the area of the Proposed Development. Research by International Transport Forum showed that women are more likely to fear being threatened by members of the opposite sex in public spaces and public transport.[65] Therefore, the introduction of predominantly male

[58] UCL Centre for Longitudinal Studies (2020): 'Race inequality in the workforce'

[59] UK Government (2019): 'Unemployment: ethnicity facts and figures'

[60] UK Government (2010): 'Disability and employment, UK'

[61] Social capital is defined by the Organisation for Economic Co-operation and Development as "networks together with shared norms, values and understandings that facilitate co-operation within or among groups"; HS2 (2018): 'High Speed Rail (Crewe to Manchester and West Midlands to Leeds) Working Draft Environmental Statement'

[62] Graham et al (2018): 'The experiences of everyday travel for older people in rural areas: A systematic review of UK qualitative studies'

[63] HS2 (2018): High Speed Rail Working Draft Environmental Statement

[64] Jo Cox Commission on Loneliness (2017): 'Combatting loneliness one conversation at a time'

[65] International Transport Forum (2018): 'Women's safety and security: a public transport priority'

construction workers into the local area may lead to a reduction of women's perception of safety.[66]

6.9 Health and safety risks due to construction activity

The Proposed Development is likely to require storage and handling of hazardous chemicals in construction of the proposed WWTP, along with the transfer of facilities and industrial equipment. Several equality groups are likely to be impacted from the safety implications of materials and traffic movements, such as children, older people and disabled people.

Children are more likely to be intrigued by noise, trucks or materials on building site but are often unaware of the dangers.[67] Children are also often more aware of their surroundings when compared to other age groups and have a limited perception of the environment because of their lack of experience or cognitive development.[68] As a result, children might not be aware of the consequences of new situations that they encounter, including on or around construction sites and hazardous chemicals and equipment.[69] Therefore, the constant presence of construction and industrial materials around the project zones might lead to safety concerns for children.

Many fatal and non-fatal accidents involving older people are attributable wholly or in part to frailty or failing health. This can lead to failure or slowness to see and avoid risks. Older people are therefore less likely to perceive the actual risk around construction sites or materials.[70] Therefore, the presence and handling of construction material might result in safety concerns for this group.

Disabled people may be particularly sensitive to the manual handling of materials in the workplace, including construction sites, due to factors such as navigation, visual hypersensitivity and cognition. People with certain impairments may also be sensitive to changes in visual stimuli such as obstructions in their pathway including excavations, roadworks or changes in signage.[71]Uneven obstructions or changes in levelling due to material handling or construction activity should be clearly marked with easily noticeable signs and easy-to-find instructions of alternative routes.[72]

The Proposed Development will also increase the traffic movements in the local area, as indicated in the sections 6.4 and 6.5. Traffic movements associated with the construction vehicles and equipment will affect the health and safety of children, older people and disabled people, who might experience travel difficulties due to pedestrian and road severance.

6.10 Health and safety risks due to the storage, handling or transfer of waste water, effluent and chemicals

The Proposed Development will require storage and handling of hazardous chemicals in construction of the proposed WWTP, along with the transfer of facilities and industrial equipment. Several equality groups are likely to be impacted from the safety implications of materials, such as children, older people and disabled people.

At present, there is limited evidence about social differentiation of impacts from waste management. There is a possibility that deprived communities are both more vulnerable to the

[66] International Transport Forum (2018): 'Women's safety and security: a public transport priority'
[67] Outsource Safety (2019): 'Children and construction site dangers'
[68] Royal Society for the Prevention of Accidents (2020): 'Accidents to children'
[69] Royal Society for the Prevention of Accidents (2020): 'Accidents to children'
[70] Royal Society for the Prevention of Accidents (2020): 'Older people safety'
[71] UN Enable (2004): 'Accessibility for the disabled: a design manual for a barrier free environment' Available at: [redacted]
[72] UN Enable (2004): 'Accessibility for the disabled: a design manual for a barrier free movement'

potential negative effects of proximity to waste facilities, owing to facilities being disproportionately situated close to deprived communities. [73] Hazardous waste has the potential to cause harmful effects on humans and their environment upon continued exposure when released. Therefore, those groups who are more likely to live within deprived communities, are potentially more likely to be at health and safety risks due to the storage, handling, and management of waste materials through the delivery and operation of the Proposed Development. There is also an interesting equity question around access, as it is "increasingly recognised that those who live in deprived areas, or who form part of deprived social groups, are simultaneously more in need of the recreational and well-being benefits that may come from their proximity to water resources and less likely to be able to take advantage of those benefits".[74] Waste management processes that therefore affect the quality of water resources in the local area may have a significant impact on environmental and social sustainability, which needs to be considered. There is therefore the potential to negatively affect several equality groups.

6.11 Potential impacts on open space, PRoW and recreational areas

The CWWTPR project will impact access to the local open space, recreational space and Public Rights of Way (PRoWs) that are in proximity to the Proposed Development (including the River Cam). Any change in green open space and PRoW is likely to impact children, disabled people (including people with mental problems), older people and young people.

According to Public Health England, there is a positive association between a greener living environment and mental health outcomes in children and young people, such as improved emotional wellbeing, reduced stress, improved resilience, and higher health-related quality of life.[75] Natural England data also shows that children and young people spend time outdoors more regularly than adults aged 25 and over.[76] Older people living in neighbourhoods with more green space have also reported better health, higher life satisfaction and less stress. In addition, greater exposure to green space has been associated with a lower risk of cardiovascular disease and diabetes.[77] Research evidence shows that accessing greenspace is an effective intervention for people with mental health problems, with one in four people in the UK likely to experience psychological problem at some point in their life.[78]

6.12 Changes to public realm

In general, industrial developments such as the Proposed Development, are more likely to reflect both current trends and prevailing theories in best design practice. This provides an opportunity to improve outdated designs, layout and landscaping around the proposed WWTP. Research by the Joseph Rowntree Foundation states that the public realm is important in ensuring the local communities interact with their environment and feel as if they are active members of their society.[79] The research found that improvements made to the public realm can benefit older people, disabled people and people from ethnic minority backgrounds.

A report from TfL suggests that unmaintained public thoroughfares and areas, including the poor upkeep of street, steep slopes and a lack of rest areas, increase the difficulty that older people face when walking through public areas and may lead to associated anxiety. Further

[73] Environment Agency (2008) Addressing environmental inequalities: waste management

[74] Environment Agency (2008) Addressing environmental inequalities: water quality

[75] Public Health England (2020): 'Improving access to greenspace: a new review for 2020'

[76] Natural England (2019): 'Children and young people report' Available at: *Title slide example (white) – title can run to two lines 24pt (publishing.service.gov.uk)

[77] Public Health England (2020): 'Improving access to greenspace: a new review for 2020'

[78] Masterton et al (2020): 'Greenspace interventions for mental health in clinical and non-clinical populations: what works, for whom and in what circumstances?'

[79] Joseph Rowntree Foundation (2007): 'The social value of public spaces'

research has highlighted that other physical barriers such as high kerbs and holes in pavements as challenges faced by older people in accessing the public realm.[80] Empirical research evidence also suggests that older people in rural areas in the UK face additional challenges and barriers in accessing essential services.[81]

It has been acknowledged that disabled people and people from ethnic minority groups are less likely to take part in public life than other groups.[82] For disabled people, public spaces can often be inaccessible. The presence of vehicular traffic and lack of accessible design, such as the use of appropriate paving and lighting, can present a barrier to using outdoor, shared public spaces, impacting the ability of disabled people to interact socially within the communities.[83] Research also shows that individuals from ethnic minorities perceive themselves as vulnerable due to their possible previous experience of victimisation or harassment,[84] highlighting a differential need for this demographic.

[80] Wennber, H, Philips, J and Stahl, A (2017): 'How older people as pedestrians perceive the outdoor environment: methodological issues derived from studies in two European countries'

[81] Graham, H et al (2018): 'The experiences of everyday travel for older people in rural areas: a systematic review of UK qualitative studies' Available at: The experiences of everyday travel for older people in rural areas: A systematic review of UK qualitative studies - ScienceDirect

[82] Greater London Authority (2017): 'The Mayor's vision for a diverse and inclusive city: Draft for consultation'

[83] House of Commons Women and Equalities Committee (2017): 'Building for Equality: Disability and the Built Environment'

[84] WHO (2016): 'Urban green spaces and health: a review of evidence'

B. Study area profile

B.1 Overview

The demographic profile of the area in which the Proposed Development is located is outlined below using data tables and maps. This shows the proportion of people with protected characteristics living in the study area (where this data is available) and provides the Local Authority areas of East Cambridgeshire and South Cambridgeshire, the East of England region and England as comparators.

B.2 Age

Table 6.1 below shows the population by age group including children, young people, the working age population and older people. Please note the groups below are not mutually exclusive and the columns are not intended to sum to 100%.

Table 6.1: Population by age group

Age	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Children (0-15)	18%	17%	20%	20%	19%	19%
Young people (aged 16-24)	9%	22%	8%	8%	10%	11%
Working age population (16-64)	65%	69%	60%	60%	61%	62%
Older people (aged 65 and over)	16%	13%	20%	20%	20%	18%

Source: ONS mid-year population estimates, 2019

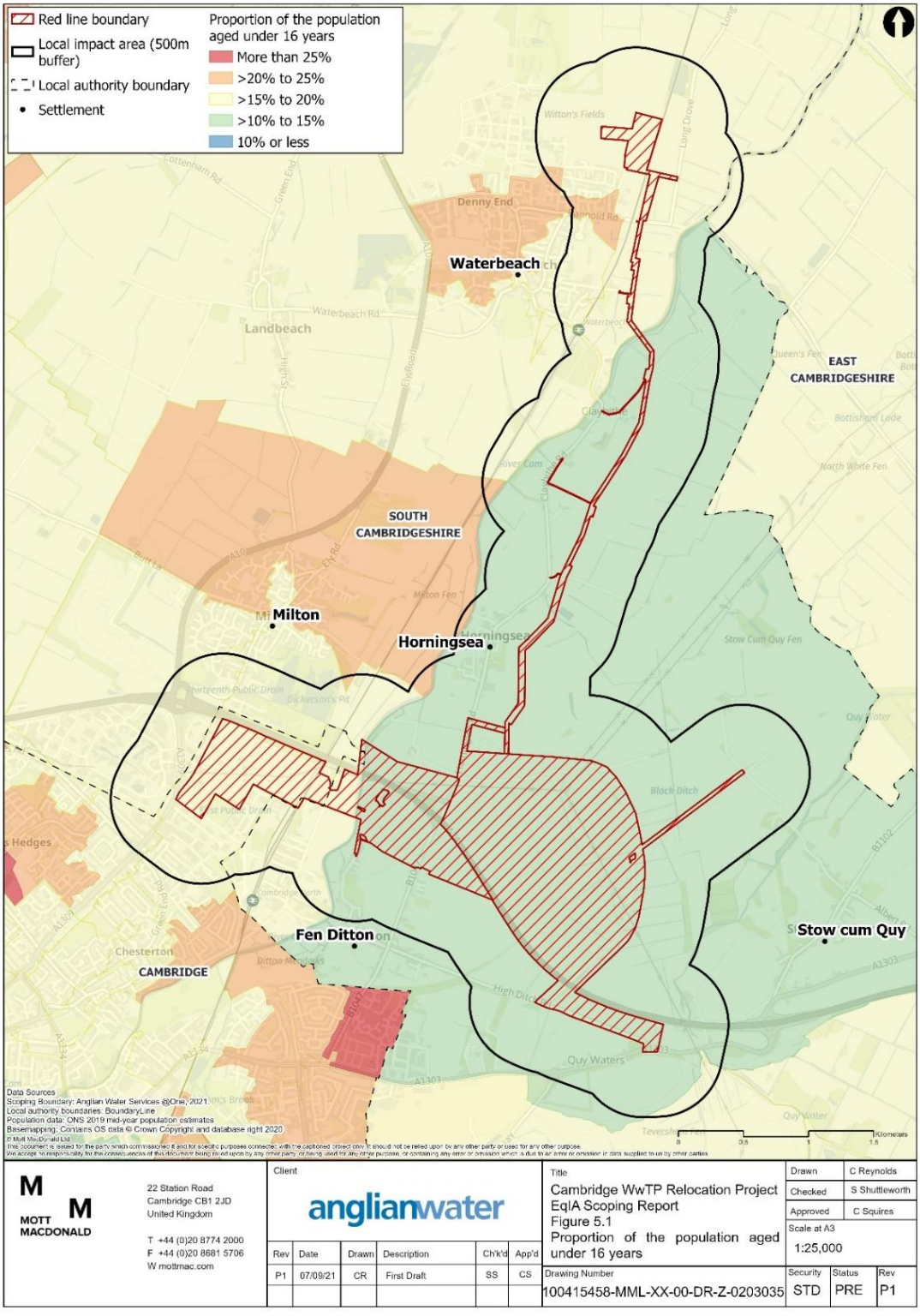
The table above shows that children make up 18% of the study area. This figure is in line with Cambridge (17%), East Cambridgeshire (20%), South Cambridgeshire (20%), East of England (19%) and England (19%) percentages.

The proportion of young people in the study area (9%) is considerably lower than Cambridge (22%) averages, but broadly in line with East Cambridgeshire (8%), South Cambridgeshire (8%), East of England (10%) and England (11%) figures.

The proportion of working age population in the study area (65%) is lower than Cambridge (69%), but considerably higher than East Cambridgeshire (60%), South Cambridgeshire (60%), East of England (61%) and England (62%) percentages.

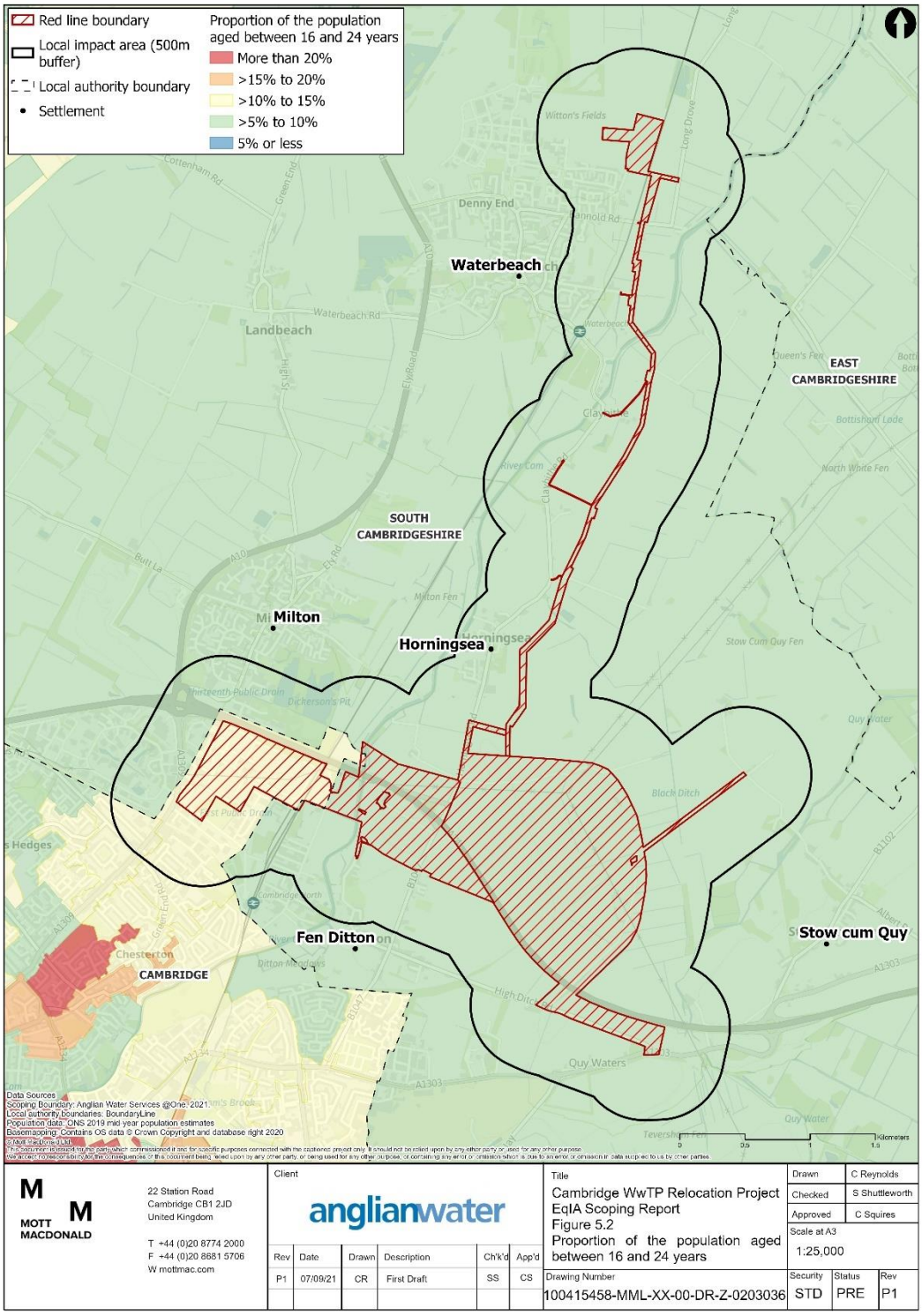
The proportion of older people in the study area (16%) is considerably higher than Cambridge figure of 13%. In comparison, the proportion of older people in other areas is higher than in the study area.

Figure 6.1: Proportion of children (those aged 0 to 15) within the study area



Source: Mott MacDonald (2021)

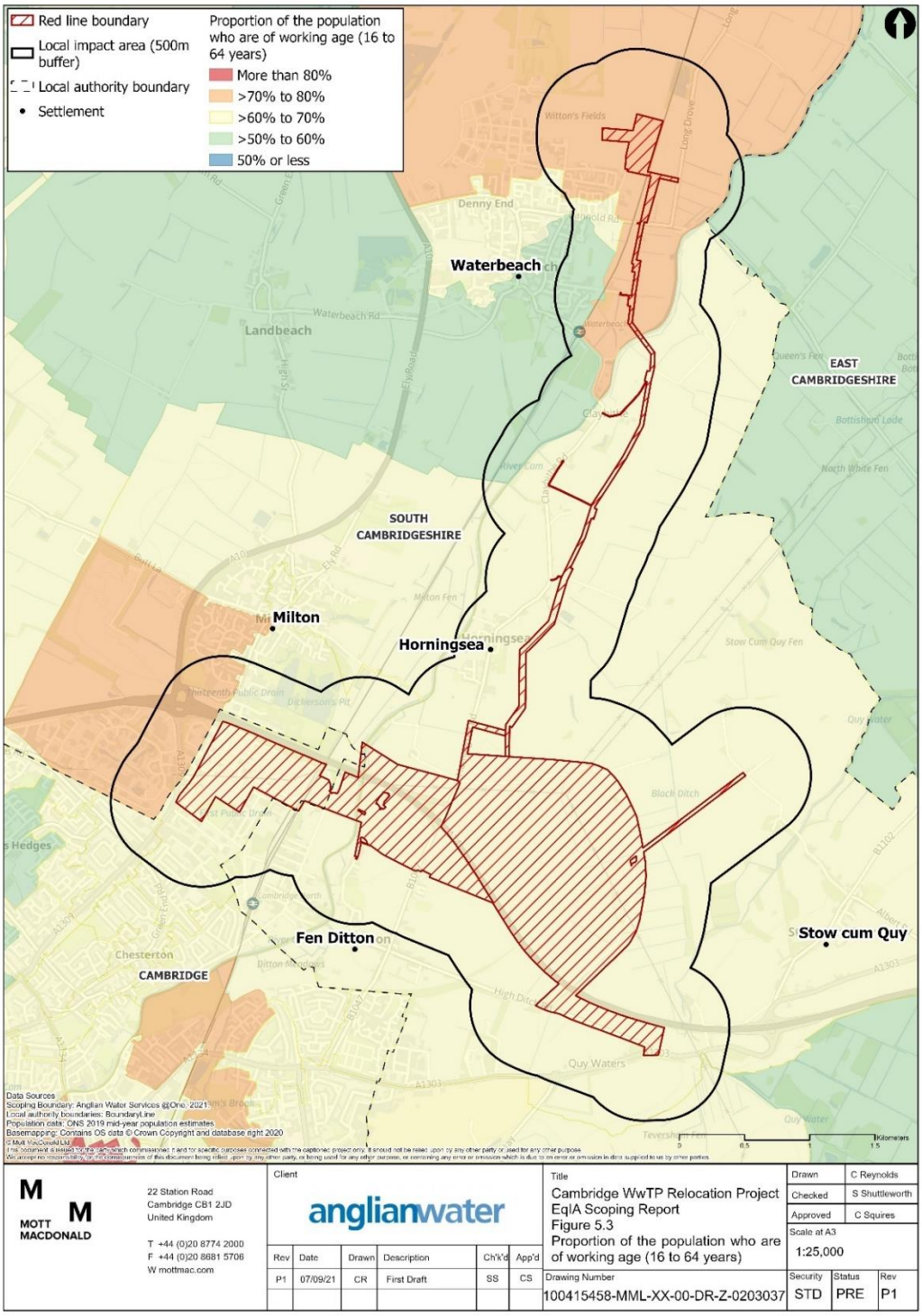
Figure 6.1 above shows that across most of the study area the proportion of children is between 10% and 15%. Areas to the south of Milton and near Waterbeach have higher proportions of children, between 15% and 20%. Figure 6.2: Proportion of younger people (those aged 16 to 24) within the study area.



Source: Mott MacDonald (2021)

Figure 6.2 above shows that across most of the study area the proportion of younger people is between 5% and 10%.

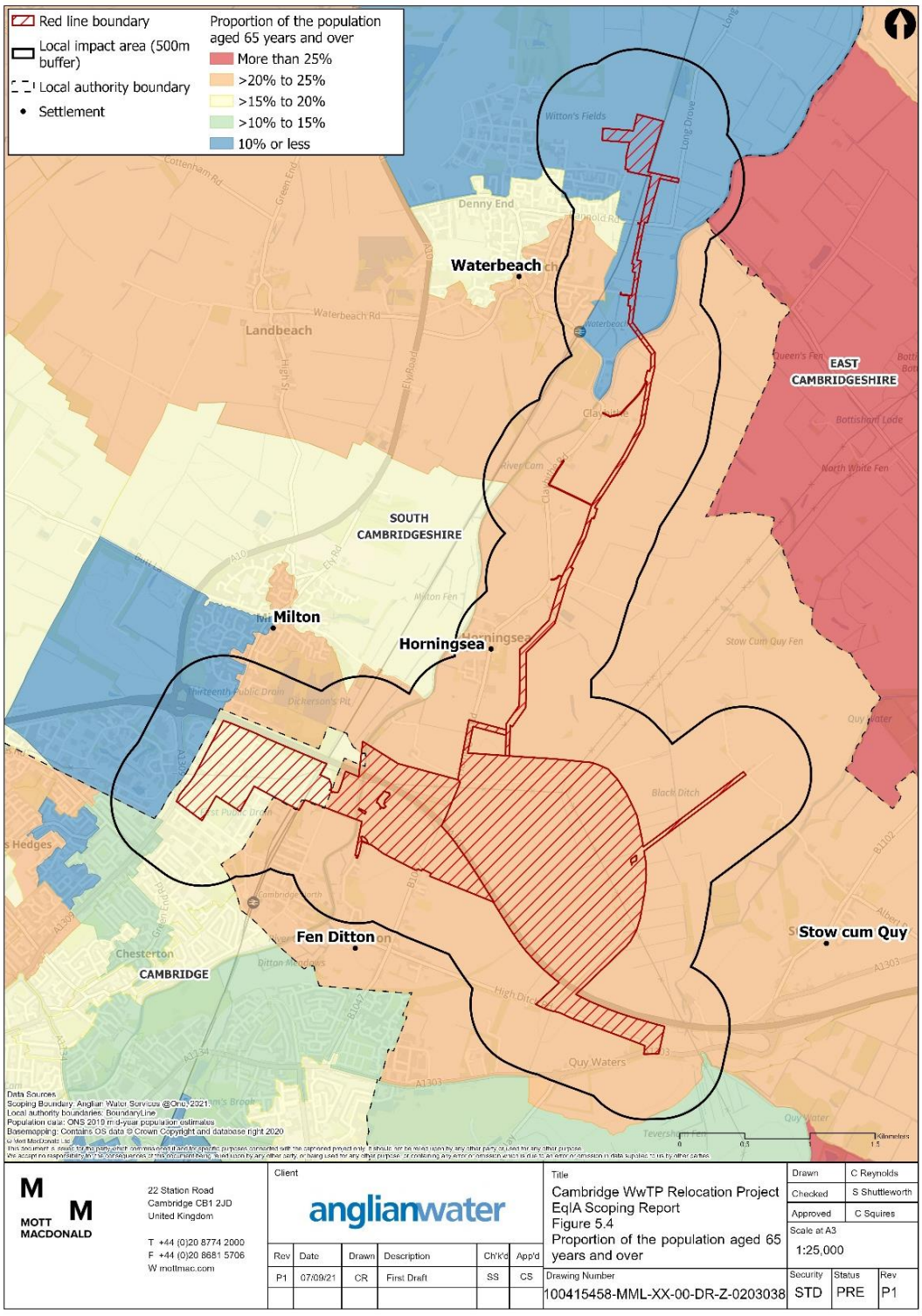
Figure 6.3: Proportion of working age people (those aged 16 to 64) within the study area



Source: Mott MacDonald (2021)

Figure 6.3 above shows that the proportion of working age people in the study area is generally between 60% and 70%, with some parts such as Waterbeach and Milton having a higher proportion, between 70% and 80%.

Figure 5.4: Proportion of older people (those aged 65 and over) within the study area.



MOTT MACDONALD 22 Station Road Cambridge CB1 2JD United Kingdom T +44 (0)20 8774 2000 F +44 (0)20 8681 5706 W mottmac.com	Client: anglianwater						Title: Cambridge WwTP Relocation Project EqIA Scoping Report Figure 5.4 Proportion of the population aged 65 years and over
	Rev	Date	Drawn	Description	Ch'k'd	App'd	
	P1	07/09/21	CR	First Draft	SS	CS	
							Drawing Number: 100415458-MML-XX-00-DR-Z-0203038

Drawn	C Reynolds
Checked	S Shuttleworth
Approved	C Squires
Scale at A3	1:25,000
Security	STD
Status	PRE
Rev	P1

Source: Mott MacDonald (2021)

Error! Reference source not found. above shows that the proportion of older people in the majority of the study area is between 20% and 30%.

B.3 Disability

Table 6.2 below shows the proportion of the population with a disability or long-term health condition that limits their day-to-day activities.

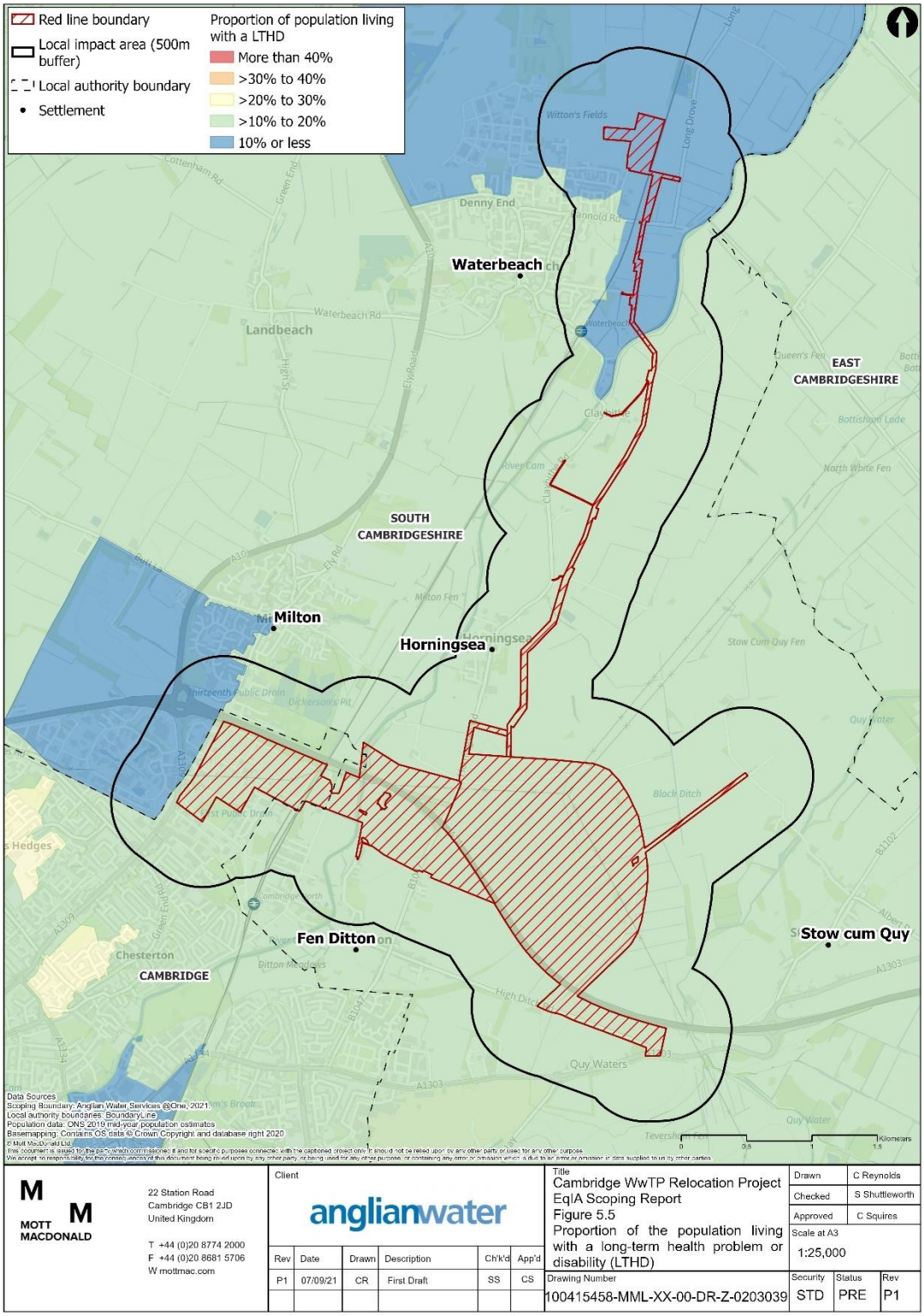
Table 6.2: Population by disability

Disability	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Day-to-day activities limited a lot	5%	5%	6%	6%	7%	8%
Day-to-day-activities limited a little	7%	7%	9%	8%	9%	9%
Day-to-day activities not limited	87%	87%	85%	86%	85%	82%
Long term health problem or disability	13%	13%	15%	14%	17%	18%

Source: Census 2011

The table above shows that 13% of the total population in the study area have a disability or long-term health problem, which is in line with Cambridge average of 13%, East Cambridgeshire average of 15% and South Cambridgeshire average of 14%. However, the proportion of disabled and people with long term health problem in the study area is considerably lower than the East of England (17%) and England (18%) figures.

Figure 6.4: Proportion of people living with a LTHD in the study area



MOTT MACDONALD 22 Station Road Cambridge CB1 2JD United Kingdom T +44 (0)20 8774 2000 F +44 (0)20 8681 5706 W mottmac.com	Client: anglianwater					Title: Cambridge WwTP Relocation Project EqIA Scoping Report Figure 5.5 Proportion of the population living with a long-term health problem or disability (LTHD)
	Rev	Date	Drawn	Description	Ch'k'd	App'd
	P1	07/09/21	CR	First Draft	SS	CS

Drawn	C Reynolds
Checked	S Shuttleworth
Approved	C Squires
Scale at A3	1:25,000
Drawing Number	100415458-MML-XX-00-DR-Z-0203039
Security	STD
Status	PRE
Rev	P1

Source: Mott MacDonald (2021)

Figure 6.4 shows that the proportion of the disabled people, including long term and limiting conditions, is between 10% and 20% for the majority of the study area. Several areas including Milton and Waterbeach have a proportion of 10% or less.

B.4 Gender reassignment

There is no robust data for gender diverse people in the study area or the UK more widely. The Government Equalities Office, though has estimated that the size of the Trans[85] community in the UK could range between 200,000 to 500,000 people.

B.5 Marriage and civil partnership

Table 6.3 below shows the proportion of population who are married or in a civil partnership in the study area, Cambridge, East Cambridgeshire, South Cambridgeshire, the East of England and England as a whole.

Table 6.3: Population by marriage and civil partnership

Marital status	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Single (never married or registered a same-sex civil partnership)	38%	53%	27%	28%	31%	35%
Married	47%	34%	55%	56%	50%	47%
In a same-sex civil partnership	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%
Separated (but still legally married or in a same-sex civil partnership)	3%	2%	2%	2%	3%	3%
Divorced or same-sex civil partnership legally dissolved	7%	7%	9%	8%	9%	9%
Widowed or surviving partner from same-sex civil partnership	5%	5%	7%	6%	9%	9%

Source: 2011 Census, ONS – marital and civil partnership status

The table above shows that single people make up 38% of the study area, which is considerably lower than Cambridge (58%), but considerably higher than East Cambridgeshire (27%), South Cambridgeshire (28%) and East of England (31%). It is in line with the national figure (35%).

The table above shows that married population make up 47% of the study area, which is considerably higher than Cambridge figure of 34%, but significantly lower than East Cambridgeshire (55%), South Cambridgeshire (56%) and East of England (50%) figures. it is. In

[85] According to the charity Stonewall 'Trans is an umbrella term to describe people whose gender is not the same as, or does not site comfortably with, the sex they were assigned at birth'. Available at: [redacted]

comparison, the proportion of married population in the study area is in line with the national figure.

B.6 Pregnancy and maternity

Table 6.4 below shows the Total Fertility Rate (TFL)[86] for Cambridge, East Cambridgeshire, South Cambridgeshire, East of England and England. The data is not available for the study area.

Table 6.4: Population by pregnancy and maternity

Pregnancy and maternity	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Live births	1,335	866	1,547	67,409	610,505
General fertility rate (GFR)	45.70	56.40	57.70	60.70	57.70
Total fertility rate	1.80	1.69	1.74	1.77	1.66

Source: ONS, 2019 – Live births in England and Wales

The table above shows that the TFR in Cambridge is 1.80, which is higher than East Cambridge (1.69), South Cambridgeshire (1.74), East of England (1.77) and England (1.66) rates.

B.7 Race and ethnicity

Table 6.5 below shows the breakdown of race and ethnicity of the population in the study area, Cambridge, East Cambridgeshire, South Cambridgeshire, East of England and England.

Table 6.5: Population by race and ethnicity

Race and ethnicity		Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
White	**White British**	81.3%	66.0%	89.7%	87.3%	85.3%	79.8%
	White Irish	0.9%	1.4%	0.6%	0.7%	1.0%	1.0%
	White Gypsy or Irish Traveller	0.9%	0.1%	0.3%	0.3%	0.1%	0.1%
	Other White	6.9%	15.0%	5.6%	5.0%	4.5%	4.6%
Mixed/multiple ethnic groups	**White and Black Caribbean**	0.6%	0.6%	0.3%	0.4%	0.6%	0.8%
	White and Black African	0.3%	0.4%	0.2%	0.2%	0.3%	0.3%
	White and Asian	0.5%	1.2%	0.4%	0.7%	0.6%	0.6%
	Other Mixed	0.7%	1.0%	0.5%	0.5%	0.5%	0.5%
Asian/Asian British	**Indian**	1.0%	2.8%	0.4%	1.5%	1.5%	2.6%
	Pakistani	0.3%	0.6%	0.1%	0.3%	1.1%	2.1%

[86] For this purpose TFR is being used as a proxy value as data on pregnant women or women who are postnatal is not available.

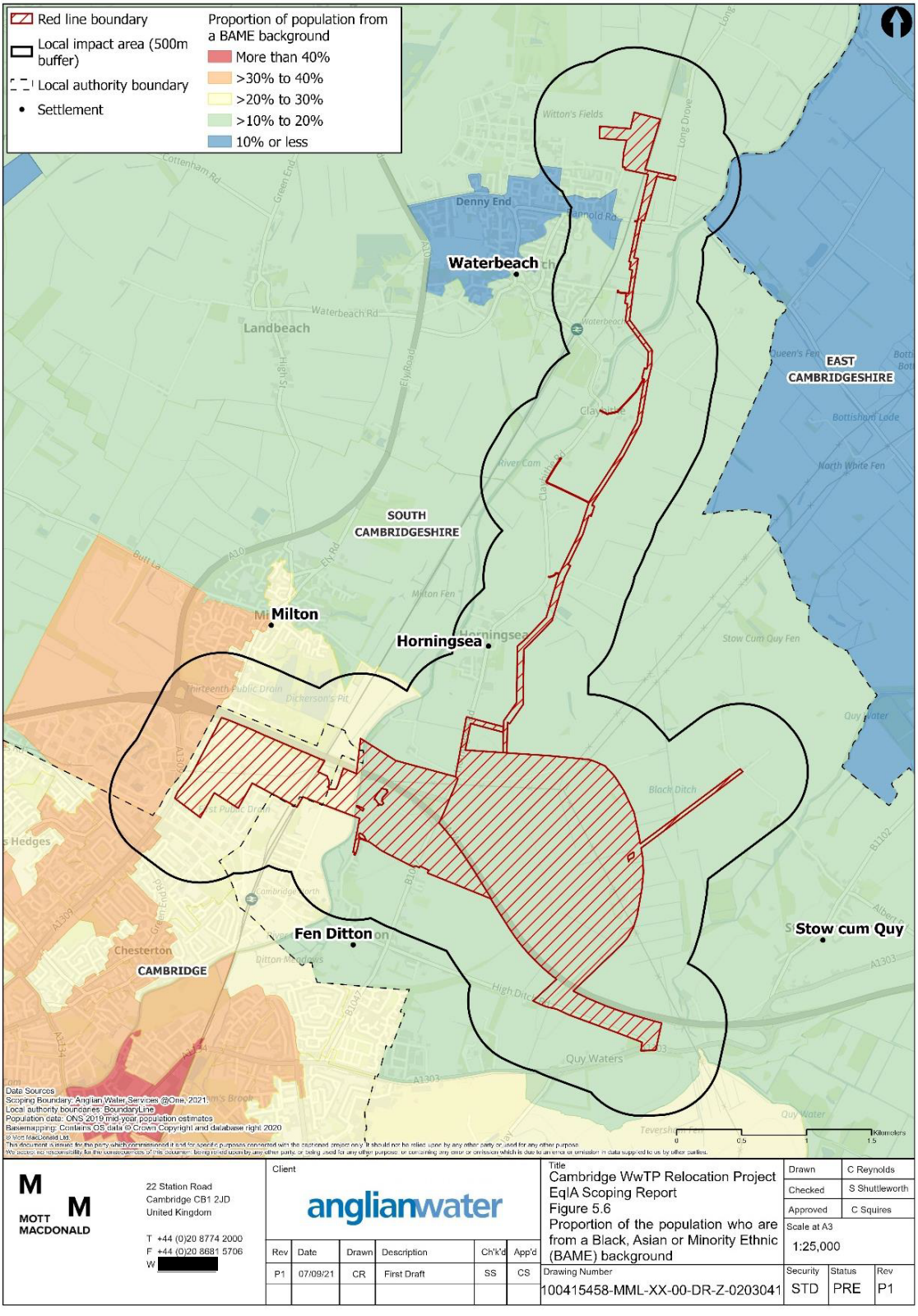
Race and ethnicity		Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
	Bangladeshi	1.3%	1.5%	0.1%	0.1%	0.6%	0.8%
	Chinese	1.2%	3.6%	0.3%	0.8%	0.6%	0.7%
	Other Asian	1.3%	2.6%	0.5%	1.0%	1.0%	1.5%
Black/African/ Caribbean /Black/British	**Black African**	1.2%	1.0%	0.3%	0.5%	1.2%	1.8%
	Black Caribbean	0.6%	0.5%	0.1%	0.2%	0.6%	1.1%
	Other Black	0.4%	0.2%	0.1%	0.1%	0.2%	0.5%
Other ethnic group	**Arab**	0.3%	0.7%	0.1%	0.2%	0.2%	0.4%
	Any other ethnic group	0.6%	0.9%	0.2%	0.3%	0.3%	0.6%
Black, Asian and other Ethnic Minorities		18.7%	34.0%	10.3%	12.7%	14.7%	20.2%

Source: 2011 Census, ONS – ethnic group

Table 5.5 shows:

- The proportion of White British population in the study area is 81.3%. This figure is considerably higher than Cambridge average of 66%, but lower than East Cambridgeshire (89.7%), South Cambridgeshire (87.3%) and East of England (85.3%) percentages. White British population in England is broadly in line with that of the study area.
- The 'Other White' population in the study area is 6.9% which is considerably lower than Cambridge percentage of 15%, but in line with East Cambridgeshire (5.6%) and South Cambridgeshire (5%). Other White population in East of England and England are both slightly higher than that of the study area.
- The proportion of ethnic minorities in the study area is 18.7%, which is considerably lower than the Cambridge percentage of 34% and broadly in line with the national figure of 20.2%. In comparison, the proportion of ethnic minorities in East Cambridgeshire, South Cambridgeshire and East of England are all lower than the proportions in the study area.

Figure 6.5: Proportion of population from ethnic minority groups in the study area



Source: Mott MacDonald (2021)

Figure 6.5 above shows that the proportion of ethnic minorities in the majority of study area is between 10% and 20%. The proportion of study area which falls in Milton has a higher proportion of ethnic minorities, between 20% and 40% in general.

B.8 Religion and belief

Table 6.6 below provides the religious profile of the study area compared to the districts of Cambridge, East Cambridgeshire, South Cambridgeshire, East of England region and England as a whole.

Table 6.6: Population by religion and belief

Religion	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Christian	53.7%	44.8%	62.3%	58.8%	59.7%	59.4%
Buddhist	0.7%	1.3%	0.3%	0.5%	0.4%	0.5%
Hindu	1.0%	1.7%	0.2%	0.8%	0.9%	1.5%
Jewish	0.2%	0.7%	0.1%	0.2%	0.6%	0.5%
Muslim	2.6%	4.0%	0.4%	1.0%	2.5%	5.0%
Sikh	0.1%	0.2%	0.1%	0.1%	0.3%	0.8%
Other Religion	0.5%	0.6%	0.4%	0.4%	0.4%	0.4%
Religion Not Stated	9.0%	9.0%	7.9%	8.2%	7.3%	7.2%
Minority Religion	5.0%	8.3%	1.6%	3.0%	5.2%	8.7%

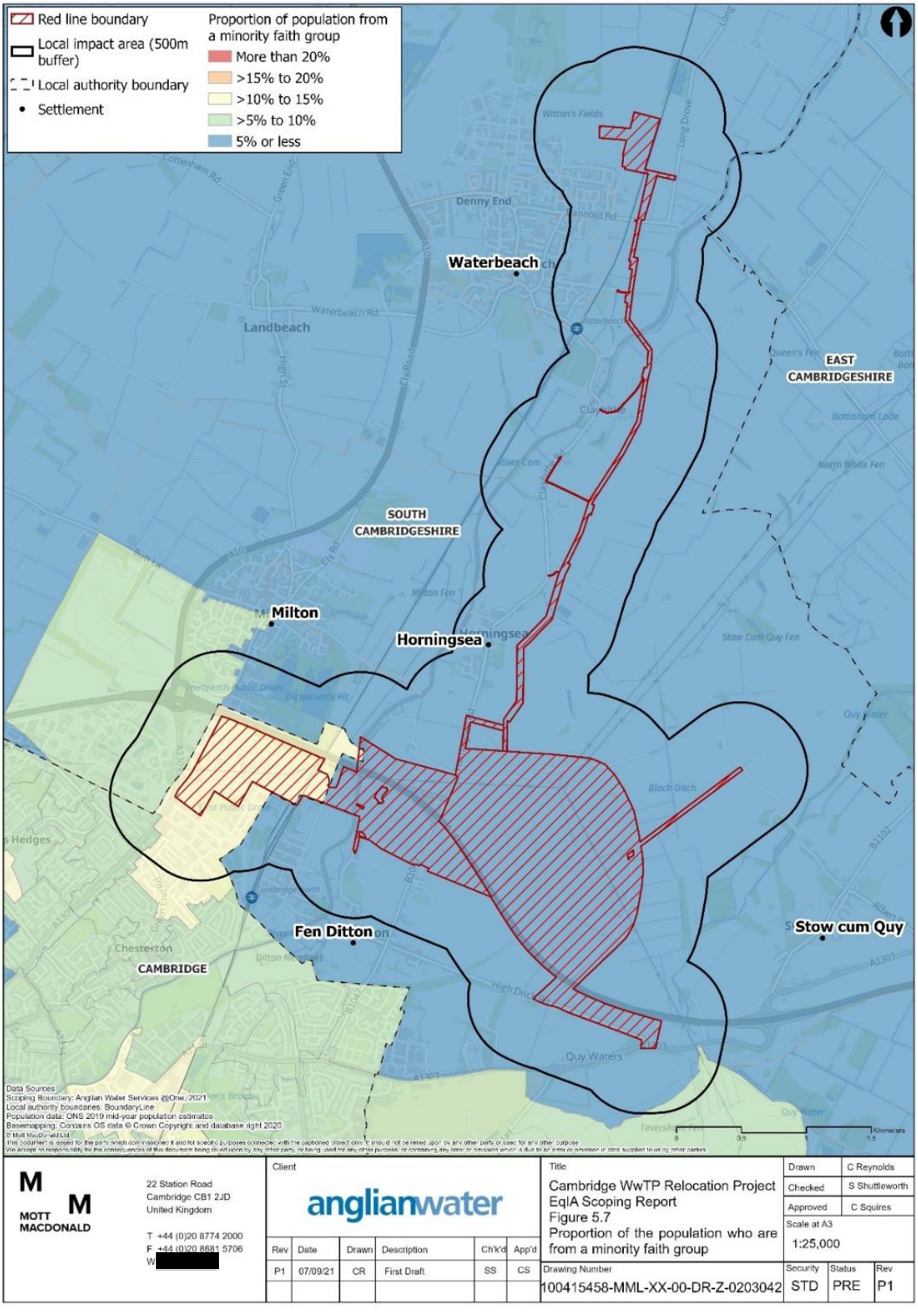
Source: Census (2011)

The table above shows:

- The Christian population in the study area (53.7%) is significantly higher than that of Cambridge (44.8%) and lower than that of East Cambridgeshire (62.3%), South Cambridgeshire (58.8%), East of England (59.7%) and England (59.4%).
- Those who belong to a minority religion in the study area make up 5% of the population, which is considerably lower than that of Cambridge (8.3%) and England (8.7%). In comparison, the study area has a higher proportion of people from minority religion than East Cambridgeshire (1.6%), which is in line with South Cambridgeshire (3%) and East of England (5.2%) figures.

Figure 5.7 shows that the proportion of people who belong to a minority faith group is 5% or less for the majority of the study area. There are sections to the west of the study area with higher proportions of people from minority faith groups, between 5% and 15%.

Figure 6.6: Proportion of the population with a minority faith in the study area



Source: Mott MacDonald (2021)

B.9 Sex

Table 6.7 below shows the proportion of the population who are male and female in the study area, Cambridge, East Cambridgeshire, South Cambridgeshire, East of England and England.

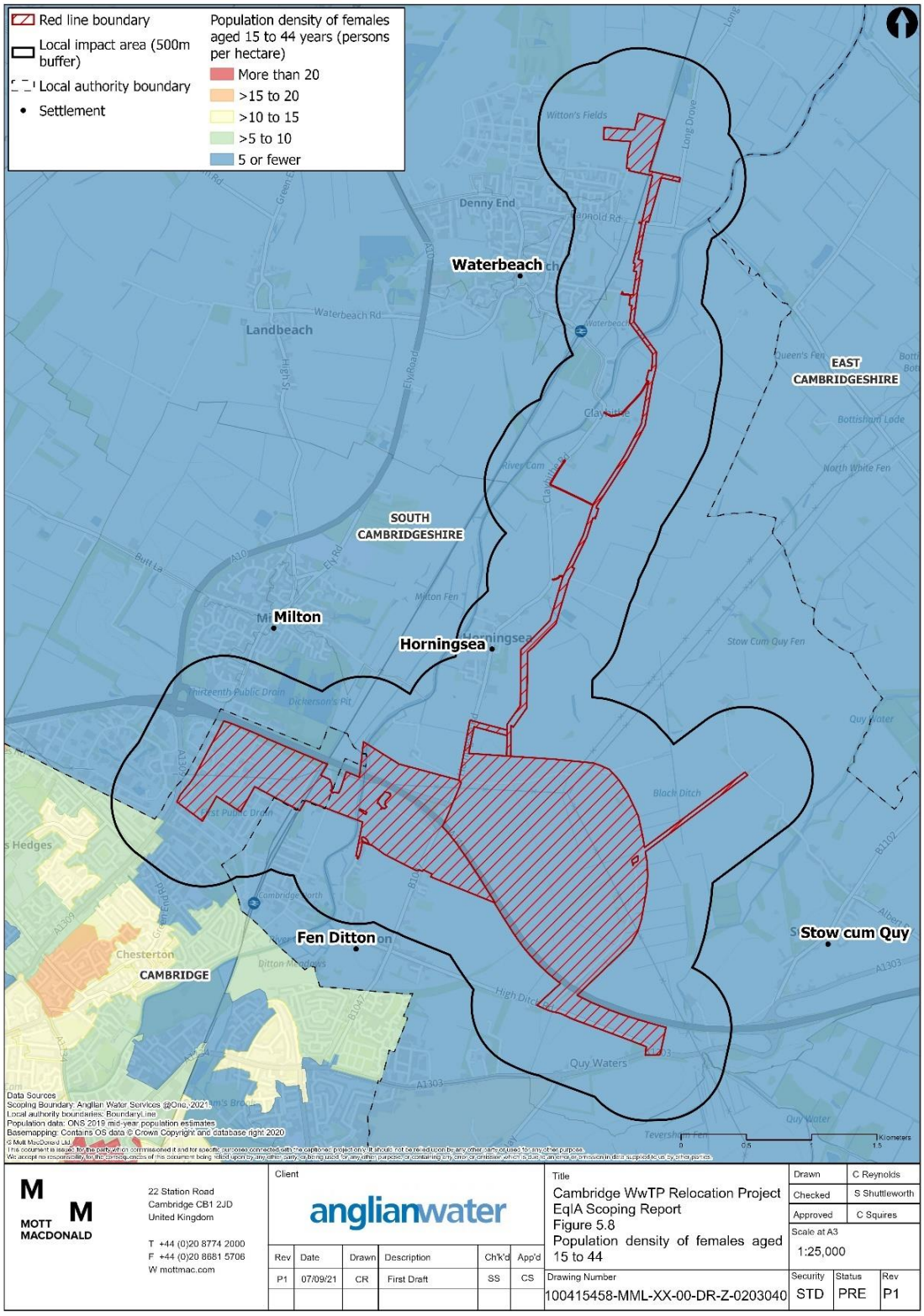
Table 6.7: Population by sex

Sex	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Male	60%	52%	66%	67%	65%	63%
Female	40%	48%	34%	33%	35%	37%

Source: ONS mid-year population estimates, 2019

The proportion of women in the study area is lower than that of Cambridge, but higher than all other areas.

Figure 6.7: Proportion of female population aged 15 to 44 years



Source: Mott MacDonald (2021)

Figure 6.7 above shows that the proportion of female population aged 15 and 44 is 5% or less for the majority of the study area.

B.10 Sexual orientation

There is no data available on this protected characteristic for the study area. However, emerging experimental statistics relating to sexual identity are available national and at regional level. In 2018, estimates from the Annual Population Survey (APS) showed that the proportion of the UK population aged 16 and over identifying as heterosexual or straight decreased from 95.3% in 2014 to 94.6% in 2018. The proportion identifying as lesbian, gay or bisexual (LGB) increased from 1.6% in 2014 to 2.2% in 2018. This comprised of:

- 1.4% identifying as gay or lesbian
- 0.9% identifying as bisexual
- 0.6% identifying as 'Other', meaning they did not consider themselves to fit into heterosexual or straight, bisexual, gay or lesbian categories
- 2.5% refusing or not knowing how to identify themselves.[87]

B.11 Socio-economic data

Whilst employment data is unavailable for the study area, this is shown below for Cambridge, East Cambridgeshire, South Cambridgeshire, East of England and England.

Table 6.8: Population by socio-economic data

Socioeconomic data	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England	England
Employment rate	77.2%	83.2%	76.1%	77.2%	75.7%
Unemployment rate	3.9%	n/a	2.8%	4.0%	4.8%

Source: Annual Population Survey, 2020

The employment rate in Cambridge (77.2%) is slightly lower than East Cambridgeshire (83.2%) averages, but broadly in line with South Cambridgeshire (76.1%), East of England (77.2%) and England (75.7%) rates.

B.12 Deprivation

Table 6.9 below shows the deprivation levels of the population in study area, in relation to Cambridge, East Cambridgeshire, South Cambridgeshire, East of England and England.

Table 6.9: Population by deprivation

Income quintiles	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England
Most deprived	0%	3%	0%	0%	10%
Second quintile	17%	9%	4%	1%	18%
Third quintile	24%	30%	31%	10%	25%
Fourth quintile	39%	31%	30%	33%	22%

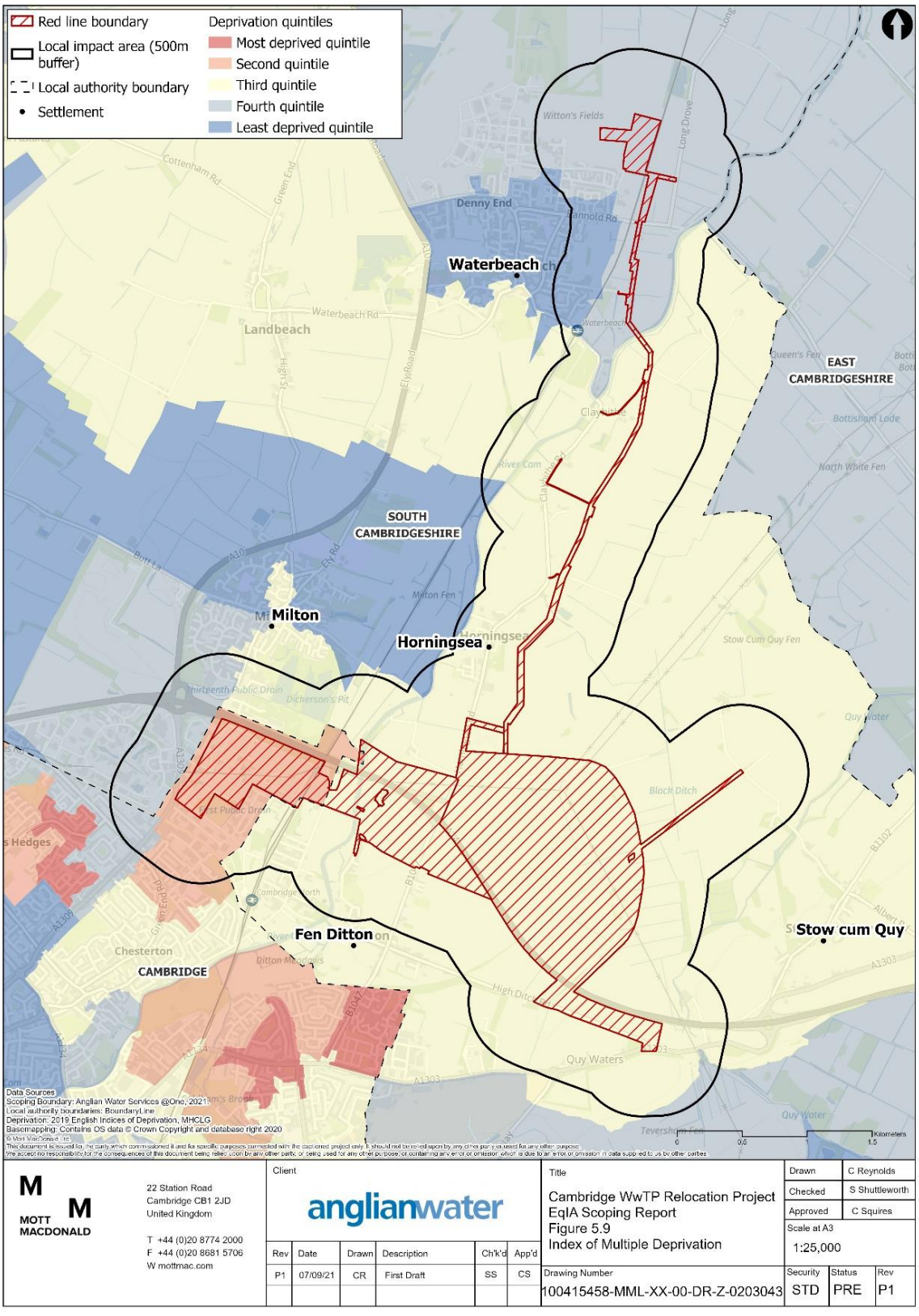
[87] ONS (2018): 'Sexual orientation, UK: 2018'

Income quintiles	Study area	Cambridge	East Cambridgeshire	South Cambridgeshire	East of England
Least deprived quintile	20%	25%	35%	56%	25%

Source: ONS mid-year population estimates (2019)

The table above shows that the proportion of population falling within the most deprived quintile is lower than Cambridge (3%) and East of England (10%). 39% of the population in the study area falls within the 2nd least deprived quintile, which is considerably higher than Cambridge (31%), East Cambridgeshire (30%), South Cambridgeshire (33%), and East of England (22%).

Figure 6.8: Proportion of population under deprivation quintiles



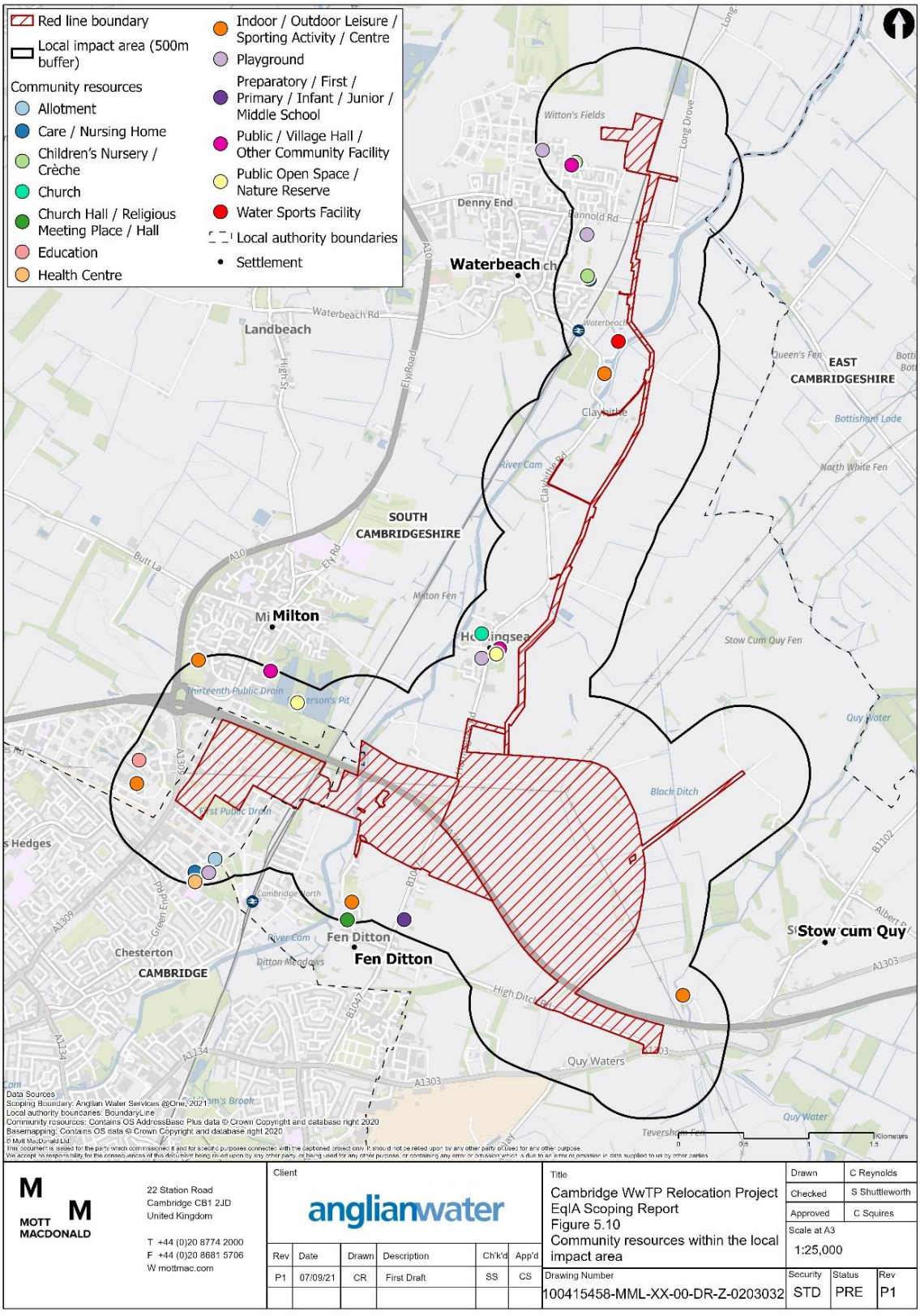
Source: Mott MacDonald (2021)

Figure 6.8 above shows that the majority of the population in the study area falls in the third deprivation quintile. The area to the west of the proposed WWTP near Milton has a high deprivation, with majority of the population falling in the second-highest deprivation quintile.

B.13 Community facilities

Figure 5.10 shows that there are a number of community facilities within the study area, particularly to the west of the area in the settlements of Waterbeach and north-east Cambridge. There is also a cluster of community facilities in Horningsea, immediately to the west of the land required for the Proposed Development.

Figure 6.9: Map of community resources

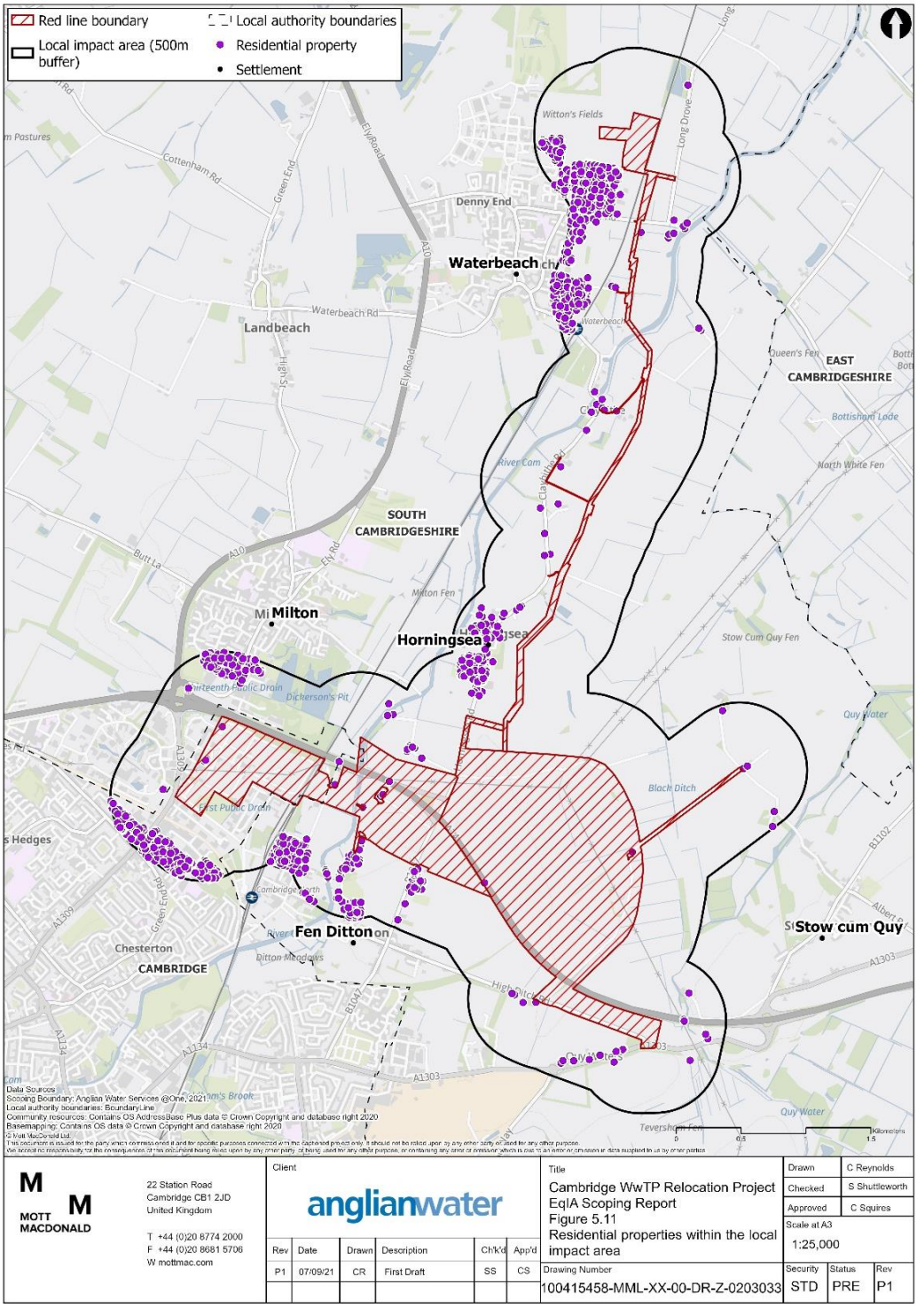


Source: Mott MacDonald (2021)

B.14 Residential properties

Figure 5.11 shows the location of residential properties in relation to the Proposed Development and within the study area. The eastern side of Waterbeach falls within the study area, as does Horningsea, the southern park of Milton and north-eastern Cambridge.

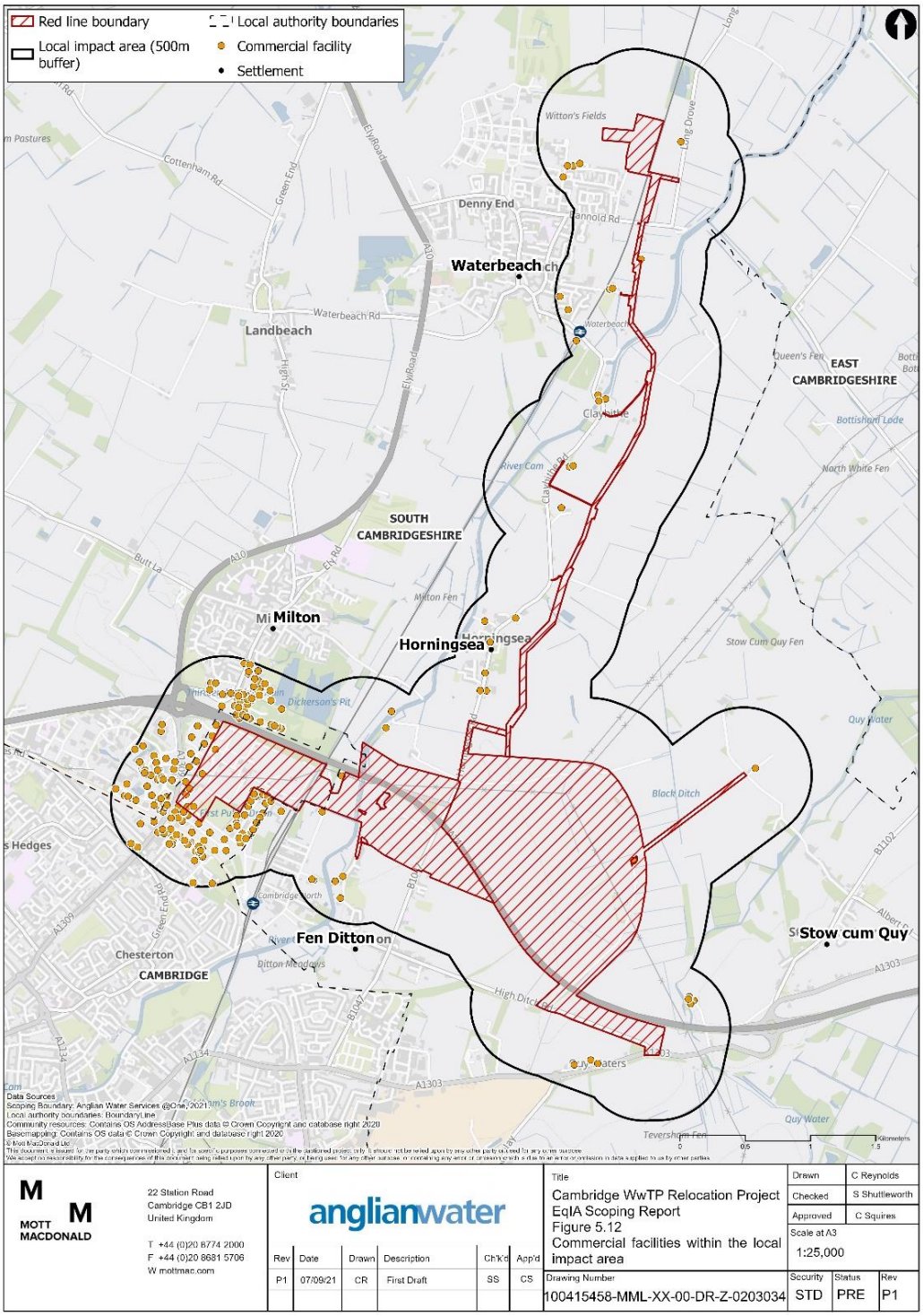
Figure 6.10: Map of residential properties



B.15 Source: Mott MacDonald (2021) Commercial facilities

Figure 5.12 shows the location of businesses in the study area. The majority of businesses are located in northern Cambridge, to the south-west of the Proposed Development.

Figure 6.11: Commercial facilities



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You can view all our DCO application documents and updates on the application on The Planning Inspectorate website:

https://infrastructure.planninginspectorate.gov.uk/projects/eastern/cambridge-waste-water-treatment-plant-relocation/