


Cambridge Waste Water Treatment Plant Relocation Project
Anglian Water Services Limited

Phase One (Non-statutory) Consultation Material



Application Document Reference: 6.1.12
PINS Project Reference: WW010003
APFP Regulation No. 5(2)q



Cambridge Waste Water Treatment Plant Relocation Project



**Phase One Community
Consultation Leaflet**

July 2020

www.cwwtpr.com

Introducing the relocation project

Anglian Water is proposing to relocate its Cambridge Waste Water Treatment Plant, unlocking potential for thousands of new homes and employment opportunities in a new low-carbon city district for North East Cambridge

The Cambridge Waste Water Treatment Plant Relocation (CWWTPR) project, which we refer to as ‘the relocation project’, is required to support sustainable growth in and around Cambridge. It will unlock the existing site, enabling regeneration of this site and the land next to it owned by Cambridge City Council, making way for more than 5,600 new homes and one million square feet of commercial space (subject to planning permission). These plans will be outlined in the emerging draft North East Cambridge Area Action Plan (AAP) which will be published for consultation by the Greater Cambridge Shared Planning Service later this summer.

The proposed relocation will be funded by the Government’s initiative to help deliver housing in areas of high demand - the Housing Infrastructure Fund (HIF).

The new, relocated facility will continue to provide vital services to Cambridge

and the surrounding area in a modern, carbon-efficient treatment plant, to be developed in collaboration with the community.

This consultation leaflet provides more information about the proposals for the relocation project, which are at an early stage, and invites you to provide your feedback.

Our phase one public consultation starts on **8 July 2020** and will run for six weeks, closing on **19 August 2020**. We welcome all comments during this time. We will be holding a variety of consultation activities during our phase one consultation, including a number of community webinars. Dates and times of these are provided below. If you would like to join one of our community webinars, you can register your interest by getting in touch with the project team using the contact details on the back page of this leaflet.

Phase one webinar dates



Wednesday 22 July
(10am-11am)



Thursday 23 July
(7pm-8pm)



Friday 24 July
(2pm-3pm)

The need to relocate the Cambridge Waste Water Treatment Plant

Since 1895, the current site on Cowley Road has been serving the needs of Cambridge and Greater Cambridge by receiving waste water from people's homes and businesses, treating it and returning it to the environment

The site also plays a vital role in storing and treating storm flows during heavy rainfall, before discharging to the River Cam. On average the site treats 1,300 litres of used water a second – that's equivalent to more than 9 million toilet flushes a day or enough water to fill 44 Olympic size swimming pools!

Why are we relocating?

The regeneration of North East Cambridge requires the Cambridge Waste Water Treatment Plant to be relocated. The emerging draft North East Cambridge AAP outlines that the regeneration could deliver thousands of new homes along with shops, restaurants, community and cultural facilities and 20,000 new jobs.

Introducing our proposals

The proposals for the relocation project are at an early stage. We have identified **three possible site areas** within which the new waste water treatment plant could be located. We want to hear your views on these site areas to help us to make a decision on a final site.

The new plant, along with waste water treatment, will continue storing and treating storm flows and will treat sludge to produce renewable energy via anaerobic digestion. The sludge treatment process also produces biofertiliser, used by farmers to provide essential soil nutrients. You can find out more about how a waste water treatment plant works on page 14 of this leaflet.

The new plant will also be equipped to deal with a growing population. It offers the opportunity for a joined-up solution for treating waste water from Cambridge and Greater Cambridge, including Waterbeach and Waterbeach New Town.

We will work closely with communities and stakeholders as we develop our proposals for the relocation project, listening to views and taking your feedback into account.

Where are we relocating?

Three possible locations for the new site were identified as part of a detailed site selection study

The site selection study identified the site areas shown in the map in figure 1. The study considered a number of criteria, including impacts on local communities, and involved an assessment of key factors such as traffic and visual impact. There is more information on this in the non-technical site selection summary report which can be viewed in the document library on our dedicated project website at www.cwwtpr.com

Anglian Water has a goal to be a net zero carbon neutral business by 2030. As part of the site selection process we have carefully considered how to reduce the carbon impact of the relocation project. The three site areas identified minimise the carbon emissions that would be produced in constructing the new waste water treatment plant.

The new site will be within a smaller area than those shown in figure 1, around half the size of the existing site on Cowley Road.

We welcome your feedback to help us to make a decision on which of the three site areas is most suitable for the proposed new plant.

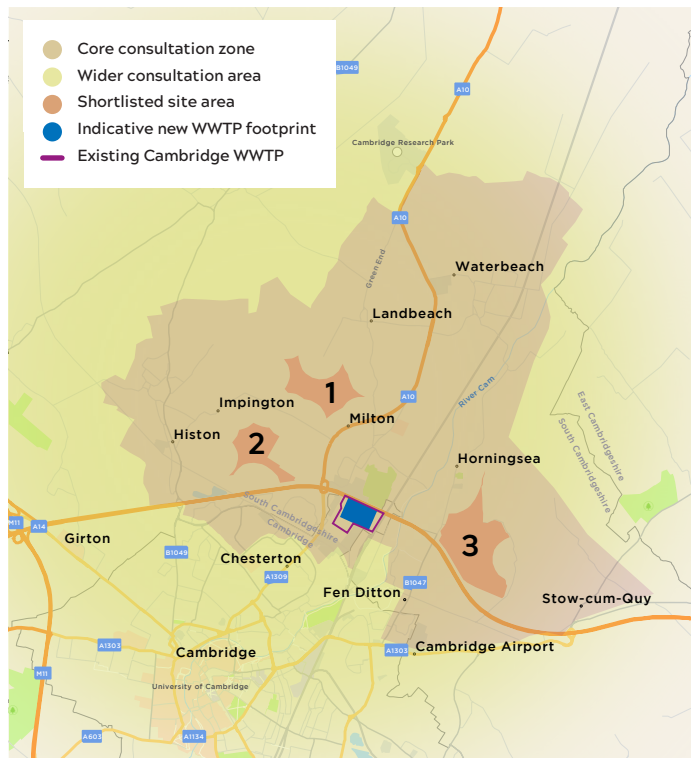


Figure 1: Core consultation zone which includes the three site areas. This zone will also include tunnels and pipelines required to take waste water to the site for treatment and take treated waste water away from the site, back to the River Cam.

Our consultation process

We will undertake an open and interactive consultation process as we develop our proposals for the relocation project

The new Cambridge Waste Water Treatment Plant is a Nationally Significant Infrastructure Project (NSIP) and will deliver benefits of local, regional and national importance. To secure planning permission for the relocation project, Anglian Water is required to submit an application for a Development Consent Order (DCO) to the Planning Inspectorate.

We plan to hold three phases of consultation during the development of our proposals. We will invite feedback from the community, local stakeholders and landowners at each phase of consultation and report back on how we have listened to the feedback received. The proposed timings for our consultation phases are shown in the timeline, along with what we will be consulting on at phases two and three.

At our phase two consultation, we will also share the preliminary findings of our Environmental Impact Assessment and will invite comments on our Preliminary Environmental Information Report (PEIR). We will produce a final consultation report as part of the DCO application showing how we have taken feedback received into account.



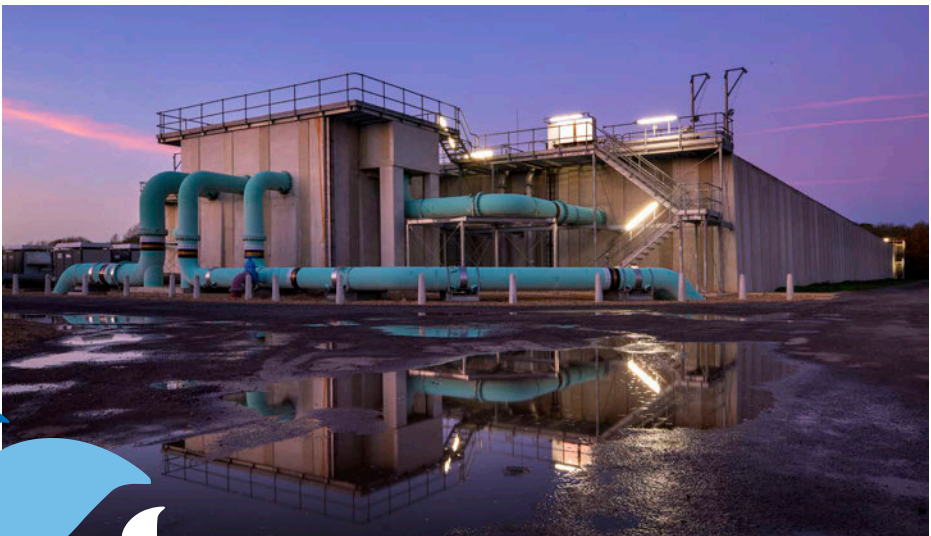
Provide your views on our relocation options

Our site area and tunnel corridor options

The Cambridge Waste Water Treatment Plant will be relocated to one of three possible site areas. Tunnels* will also be required to take waste water to the new site for treatment and to take treated waste water back to the River Cam. The tunnel corridor options for each site area are displayed in the maps on pages 8-12

We want to hear your views on both the possible site area options and the potential tunnel corridor options. This will help us to choose not only the best site, but also the best route for getting waste water to and treated waste water away from the new site. As we continue to develop our proposals, the best tunnel corridor option for the final site area (once identified) will be refined to show a final tunnel route.

Details on how to provide your feedback on the different site area and tunnel corridor options can be found on the 'have your say' page, towards the back of this leaflet.



*The transfer of treated waste water to the River Cam could be via tunnel or pipeline

Tell us what's most important to you

We are also seeking your feedback on the things that are most important to you about each of the three possible site areas. This could include, for example, impacts on ecology and biodiversity, archaeology and local heritage or local amenities

You can have your say on the things which are most important to you by using the feedback channels listed on page 13. If you think there is anything missing that we should be considering in our final site selection, please let us know.



Site area 1

Option A

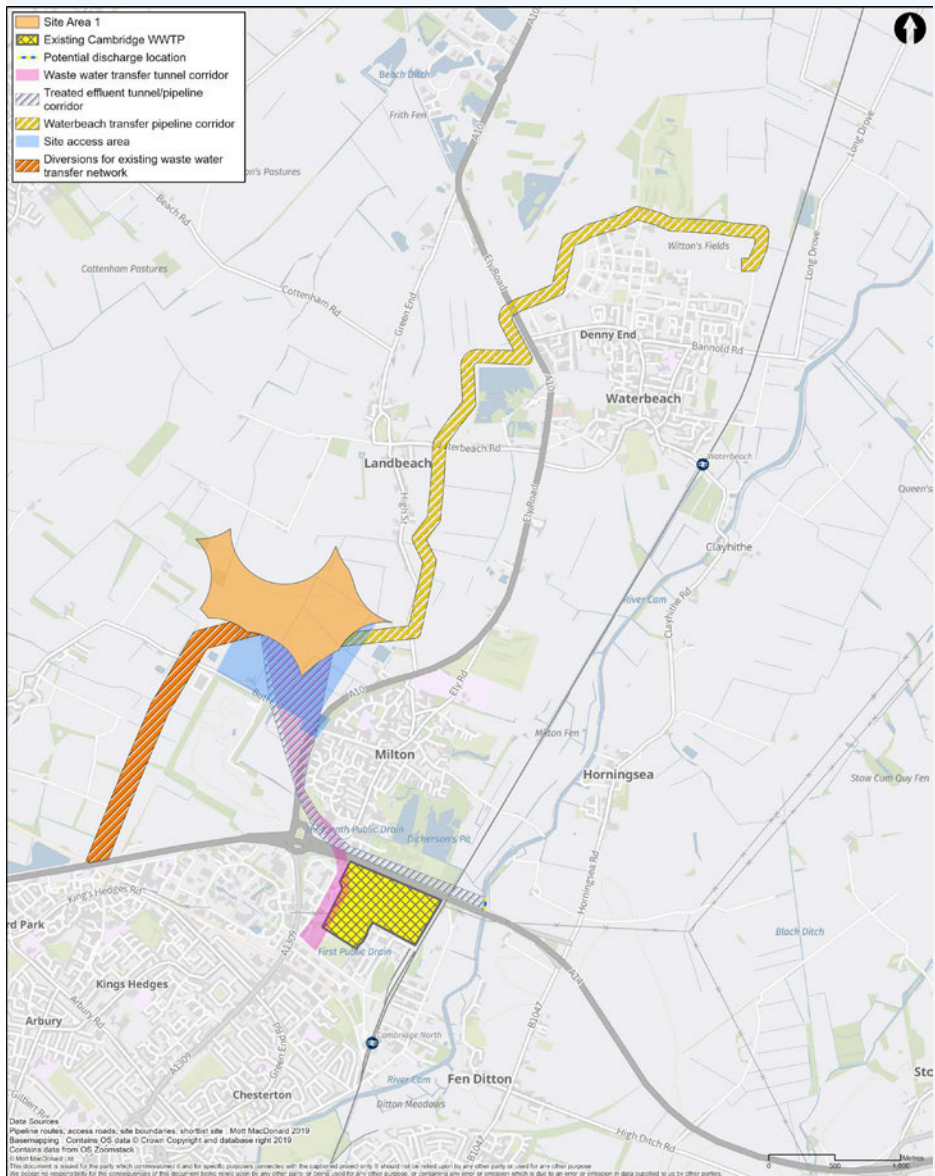


Figure 2: site area 1, option A

Site area 1

Option B

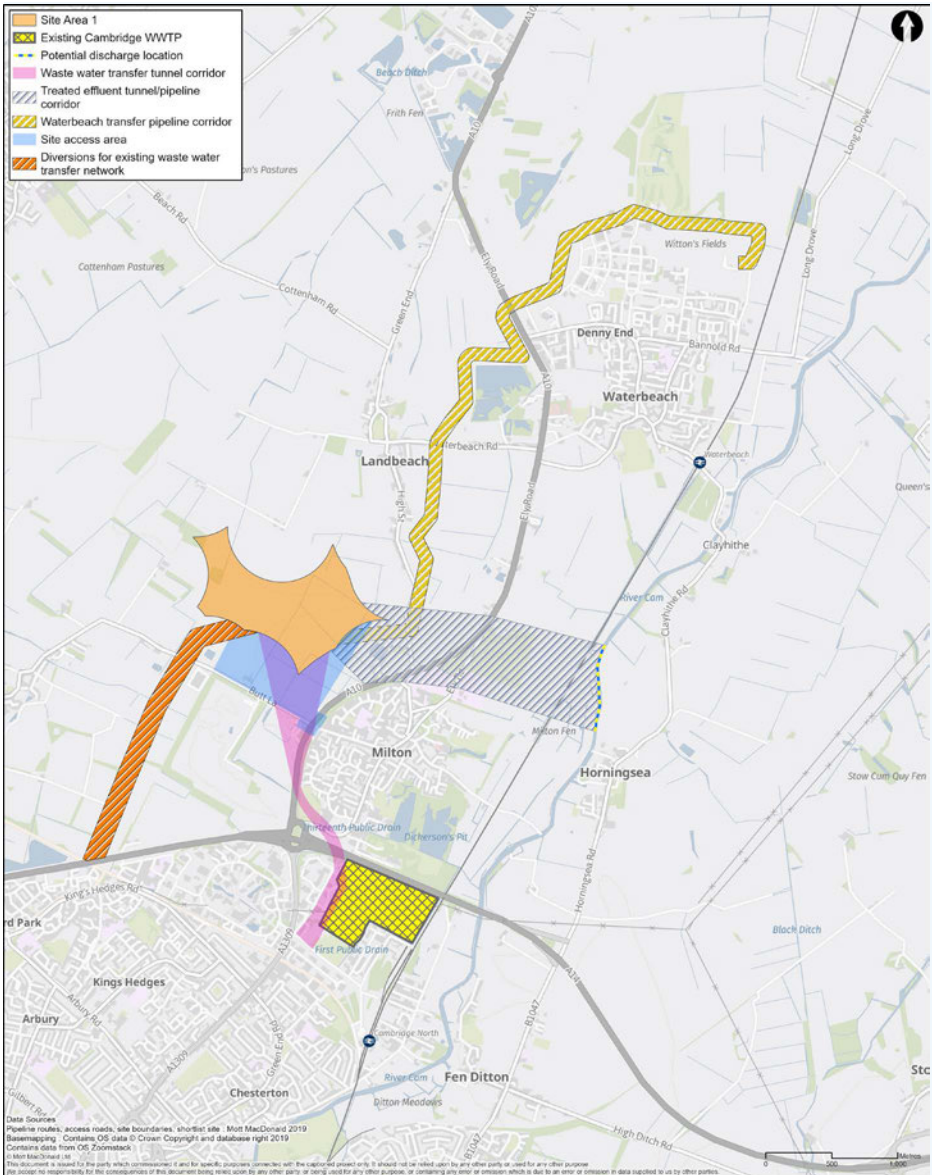


Figure 3: site area 1, option B

Site area 2

Option A

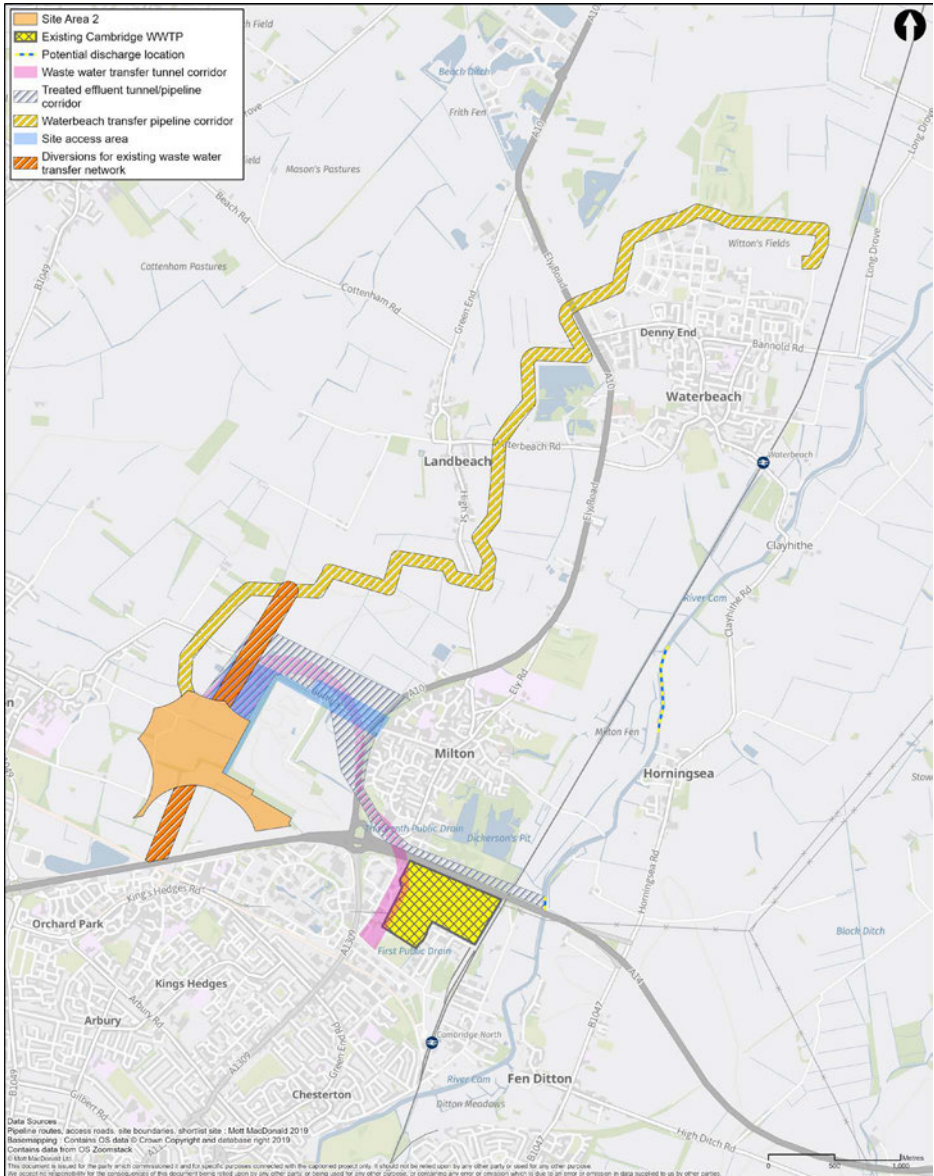


Figure 4: site area 2, option A

Site area 2

Option B

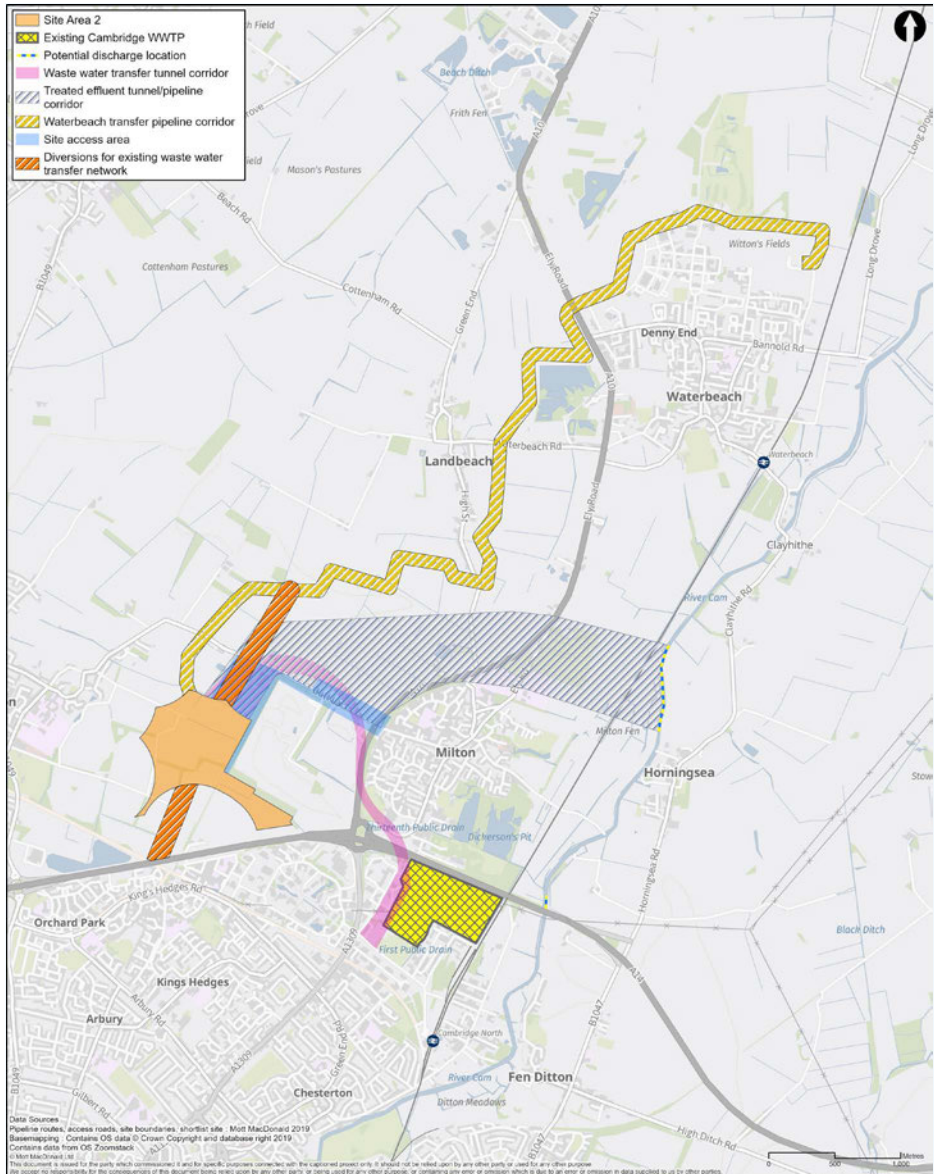


Figure 5: site area 2, option B

Site area 3

Option A

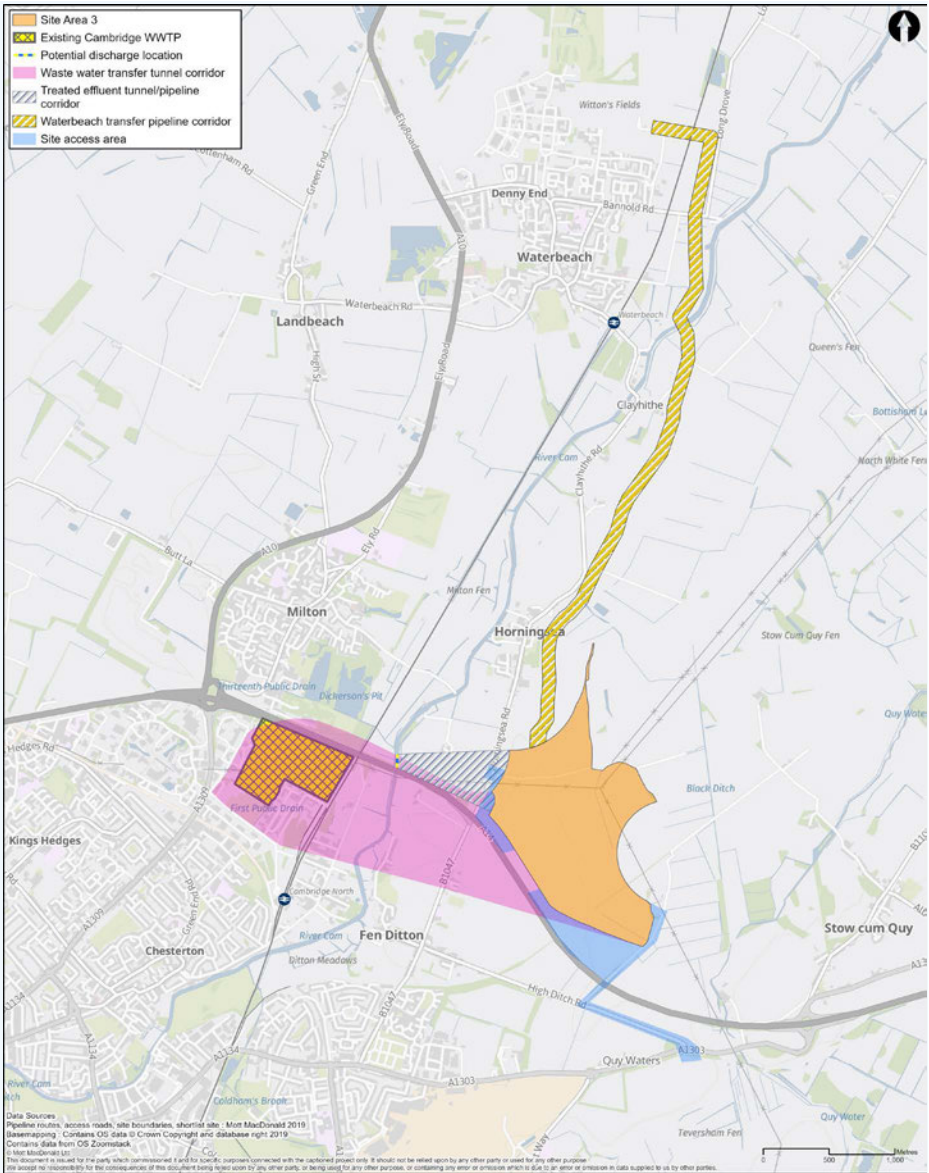


Figure 6: site area 3

Have your say

Feedback on our phase one community consultation is welcome from anyone who has an interest in our proposals between 8 July and 19 August 2020. You can access our consultation material and provide your views in the following ways:



Project website: our project website is live for you to find out more information on the relocation project: www.cwwtpr.com. To provide your feedback, you can follow the link to our digital engagement platform or view and download a feedback form.



By post: all residents in the core consultation zone received this leaflet in the post and will also have received a feedback form. You can fill this out, pop it in the envelope provided and post it back to us free of charge.



Webinars: join our community webinars by video call or by phone, to hear more from the project team and ask your questions (see more information on dates and times of our webinars on page 2).



Digital engagement platform: provide your comments and feedback on our digital platform. You can access our digital engagement platform through our project website.



Virtual exhibition: visit our virtual exhibition to view information about the project. You can access this through our project website. We hope to hold face-to-face consultation events for future phases of consultation which will be dependent on COVID-19 restrictions on public gatherings.



Local access points: due to COVID-19 restrictions local access points where you would usually be able to view consultation material remain closed. All consultation materials are available on our project website. We can also provide paper copies of material on request.

You can also email, call or write to us using the details on the back page of this leaflet.

How does a waste water treatment plant work?

Stage 1 - Wastewater from people's homes and businesses flows via sewers to the pumping station.

Stage 2 - The pumping station receives the wastewater and starts the cleaning/ treatment process.

Stage 3 - Stormwater storage and settlement tanks hold any excess water during times of heavy rainfall.

Stage 4 - Any large objects and nondegradable items (such as nappies and face wipes) along with any accumulated grit is removed.

Stage 5 - The solid waste is separated from the water for sludge treatment.

Stage 6 - Once visible sludge has been removed, the wastewater is treated further to remove any harmful bacteria and bugs.

Stage 7 - After secondary treatment, the wastewater is again filtered to remove any remaining sludge, which also goes for sludge treatment.

Stage 8 - Tertiary treatment then removes additional nutrients, ammonia or solids.

Stage 9 - The treated wastewater is sent to a pumping station to be put back into the environment.

Stage 10 - The treated wastewater can then be returned to the River Cam.

Stage 11 - Sludge left as a by-product of the wastewater treatment process and from imports elsewhere, is collected in this tank.

Stage 12 - The pre-digestion treatment readies the sludge to be decomposed into stable substances.

Stage 13 - The sludge now undergoes anaerobic digestion, which involves heating and breaking down the sludge.

Stage 14 - The biogas that is generated as part of the anaerobic digestion process can be harnessed and used as energy.

Stage 15 - At the post-digestion phase, the molecules are broken down and separated further. This includes removing any excess water before final disposal.

Stage 16 - After treatment is complete, the remaining sludge is stored, with part of it being used for biofertilizer to provide soil nutrients.

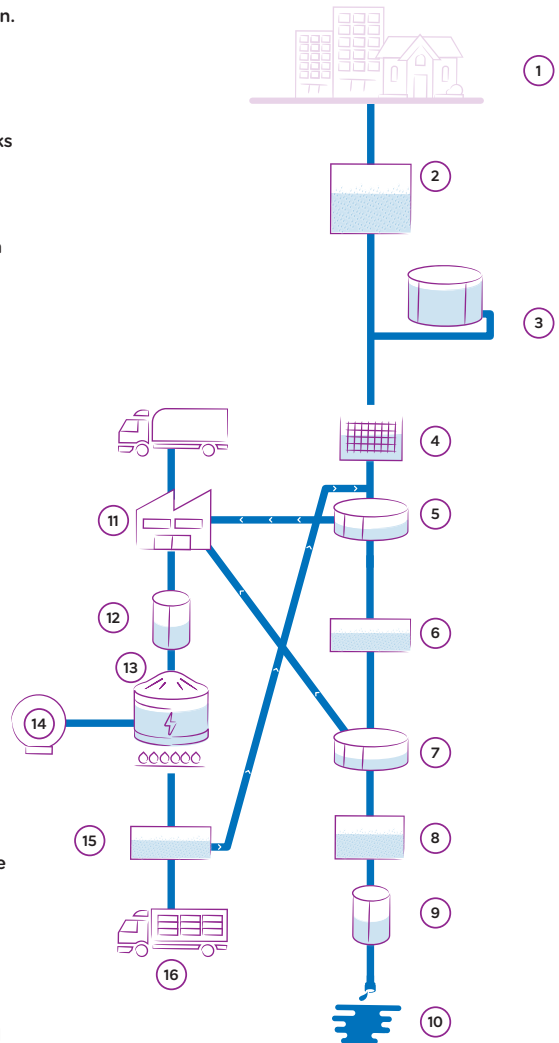


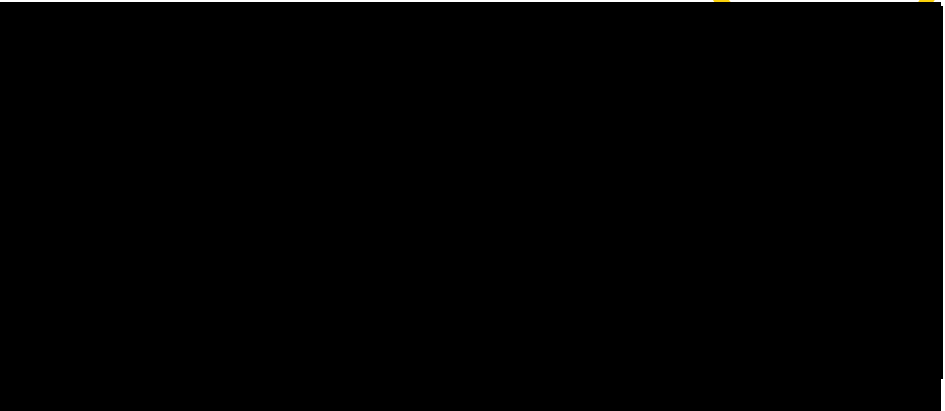
Figure 7: waste water and sludge treatment process

About Anglian Water

Anglian Water employs around 5,000 people and supplies water and waste water services to almost seven million customers in the East of England and Hartlepool

Because of our region's size, we run more water and waste water treatment plants than any other water company — around a quarter of all the plants in England and Wales. In Cambridge, we provide waste water services, while the water supply is provided by Cambridge Water.

Above and beyond the provision of fresh, clean water and the effective treatment of waste water, our purpose is to bring environmental and social prosperity to the region we serve through our commitment to 'love every drop'. Our region faces particularly acute challenges from climate change, severe drought, population and housing growth and the need to enhance the natural environment. We firmly believe we have a responsibility to help tackle them to help our region thrive, now and in the future.





Contact us

You can get in touch with our community consultation team at any point during our pre-application consultation period in the following ways:

You can contact us by:



Emailing at info@cwwtpr.com



Calling our Freephone information line on **0808 196 1661**



Writing to us at **Freepost: CWWTPR**

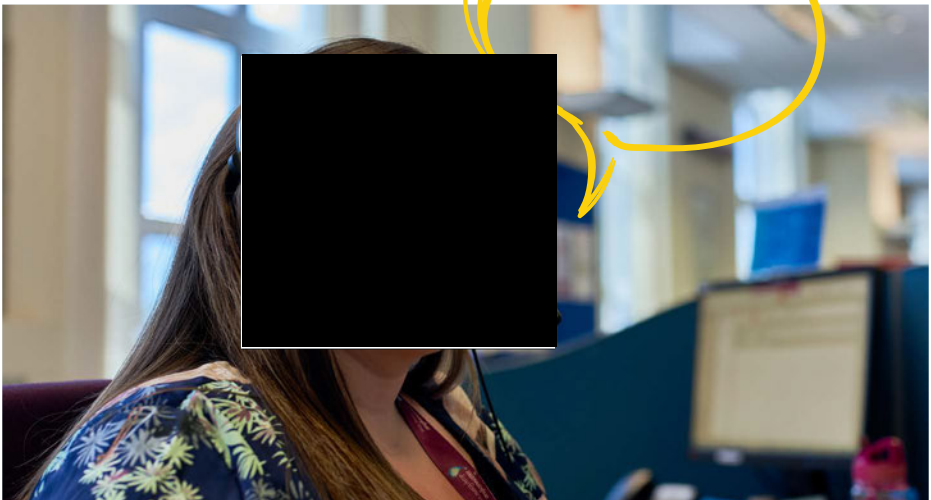


Visiting our website at 



If you would like this document in large print, audio or braille formats, please contact us using the details above.

All graphics and maps in this document are for illustrative purposes.





Cambridge Waste Water Treatment Plant Relocation Project

Phase One Consultation 8 July - 19 August 2020

Anglian Water is proposing to relocate its Cambridge Waste Water Treatment Plant and build a new, modern carbon-efficient waste water treatment plant to support sustainable growth in the city, unlocking the potential for a new low-carbon district planned for North East Cambridge.

We want to hear your views on both the possible site area options and the potential tunnel and/or pipeline corridor options for the new waste water treatment plant.

You do not have to supply personal details; however, it will help us to work towards engaging the community during the consultation period and to enable us to contact you regarding the Cambridge Waste Water Treatment Plant Relocation (CWWTPR) project. Your personal details will be stored in compliance with the Global Data Protection Regulation (GDPR) by Counter Context acting on behalf of Anglian Water and will not be shared with third parties.

Registration details

Name: Title: Date:

Organisation: (if applicable)

Address:

Postcode: Telephone:

E-mail address:

1) How would you describe your interest in the proposed Cambridge Waste Water Treatment Plant Relocation (CWWTPR) project? Please tick the most relevant.

Local resident Local representative Landowner Local business owner

Regular visitor Local interest group member (if so, please name) Statutory organisation

Other (please specify):

2) Would you like to receive our community newsletters to keep up to date with the progress of the relocation project?

Yes via post Yes via email No

Part A

3) What is your opinion of our proposal to relocate and build a new modern, carbon-efficient waste water treatment plant for Cambridge, to enable the regeneration of the North East Cambridge area?

- I strongly support the relocation
- I support the relocation
- I am neither supportive or unsupportive
- I do not support the relocation
- I strongly oppose the relocation

We have identified three possible site area options for where the Cambridge Waste Water Treatment Plant could be relocated. Based on the information provided in our consultation material and your knowledge of the area, we are seeking your feedback on the suitability of site areas 1, 2 and 3.

4) Which site area or areas are you commenting on?

- Site 1
- Site 2
- Site 3
- None of these

5) What things relating to this site or sites are most important to you? Please tick the relevant boxes and provide comments on why you think these things are most important.

Tick box	Topic area	Comments
<input type="checkbox"/>	Local ecology and biodiversity Please indicate any plant or animal species which you feel are particularly important for us to consider.	
<input type="checkbox"/>	Landscape and views Are there any local landscape features or views that are particularly important to you?	
<input type="checkbox"/>	Archaeology and local heritage Please indicate any important sites in the area.	

Tick box	Topic area	Comments
<input type="checkbox"/>	Climate change Please indicate any concerns you may have in relation to how the new plant will operate in a future climate.	
<input type="checkbox"/>	Flood risk and water quality Please indicate any concerns you have in relation to flood risk or water quality during construction or when the site is operational.	
<input type="checkbox"/>	Air quality, noise and vibration Please indicate any air quality, noise or vibration concerns, during construction or when the site is operational.	
<input type="checkbox"/>	Traffic and access during construction and operations Please let us know of any traffic or access concerns you may have.	
<input type="checkbox"/>	Impact on local amenities Please indicate any concerns relating to local amenities such as public rights of way and recreational sites.	
<input type="checkbox"/>	Other (please detail)	

6) Which site area do you think is the most suitable for the relocation project?

Site 1

Site 2

Site 3

None of these

Please explain why you think this.

Part B

Site selection questions

In order to answer these questions, you might find it useful to look at our non-technical site selection summary report. This provides information on our site selection process. It also establishes the process we propose for selecting the final site. This can be found in the documentation section of our project website. Paper copies can be provided by contacting our team ([see contact details on the bottom of this form](#)).

You can also view an interactive map of the site area options on our website.

7) Have you read our non-technical site selection summary report?

Yes

No

In line with the studies we have already carried out, we will be assessing the following things to help us identify a final site as part of our site selection process, in combination with feedback we get from this consultation:

Economic – What is the value for money of each site over the lifetime of the project?

Operational – How well does each site provide what Anglian Water needs to be able to operate the project?

Environmental – What are the possible effects on the environment and mitigation available?

Community – What are the possible effects on local communities and mitigation available?

Planning – How well does each site meet the requirements of planning policies?

Programme – Can the planning and building of the project be achieved on time for each site?

8) Are there any other factors that you think we should have considered in the site selection process or that should be considered in making our final site selection? Please provide your comments.

Part C

9) The Cambridge Waste Water Treatment Plant will be relocated to one of three possible site areas. Tunnels and/or pipelines will also be required to take waste water to the new site for treatment and to take treated waste water back to the River Cam.

Our consultation leaflet and digital engagement platform ([accessed via our website](#)) show maps of the proposed tunnel and pipeline corridor options for the three site areas. We want to hear your views on these options.

Please provide us with your comments on the tunnel and pipeline corridor options.

Part D

Our consultation process

10) Have you attended one of our community webinars?

Yes

No

11) How did you find out about our consultation?

I received a leaflet

I saw it advertised in local media

I received an email

Via a local community group

Word of mouth

Other (please specify):

12) How informative did you find the community webinar?

- Very informative Quite informative Not informative No opinion

13) Were your questions answered by our team, either at the webinar or following?

- Yes Partly No

Please provide any further comments you may have on the event and what we could have done differently.

14) Please indicate how much you agree with the following statement:

My views will be considered as the proposals for the project develop.

- Strongly agree Agree Disagree Strongly disagree Don't know
-

15) Please let us know your suggestions on how you would like us to consult you in the future.

If you have received our feedback form in the post or downloaded it from our website, you can either email it or send it to us via post using the details below. If you have any further questions or want more information please contact the project team using one of the channels below.



Email at
info@cwwtpr.com



Write to us at
Freepost: CWWTPR



Call us at
Freephone: 0808 196 1661



Visit our website at
www.cwwtpr.com

Please note that the deadline for the submission of feedback for our first phase of consultation is **19 August 2020**. A second phase of consultation will follow in Spring 2021.

How does a waste water treatment plant work?

Stage 1 - Wastewater from people's homes and businesses flows via sewers to the pumping station.

Stage 2 - The pumping station receives the wastewater and starts the cleaning/ treatment process.

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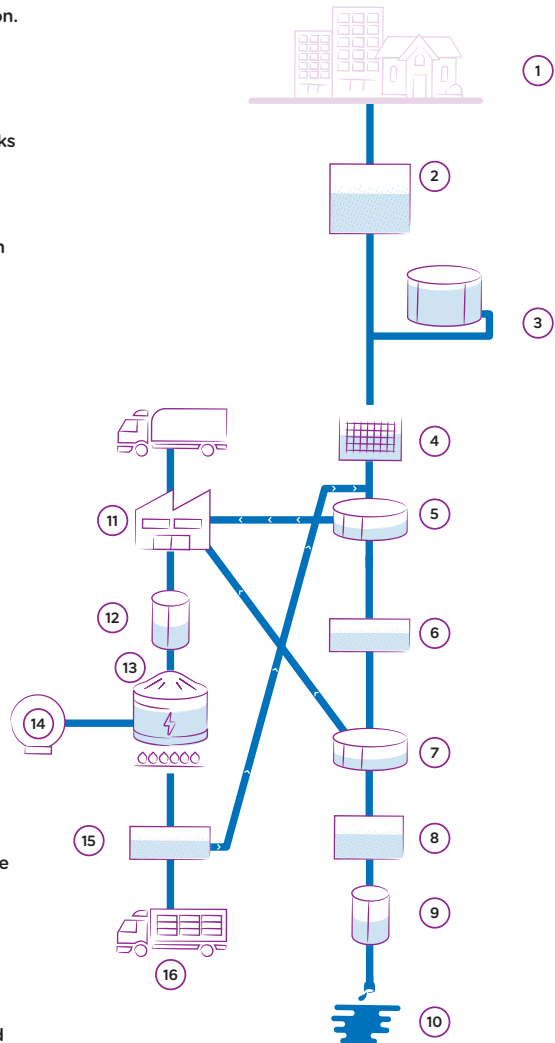
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Stage 16 - After treatment is complete, the remaining sludge is stored, with part of it being used for biofertilizer to provide soil nutrients.



Fact

We use the biogas produced by anaerobic digestion to power the Cambridge Waste Water Treatment Plant. We can also export power to the grid to provide green energy for others.



Cambridge Waste Water Treatment Plant Relocation Project



Non-technical Site Selection Summary Report
For The Cambridge Waste Water Treatment
Plant Relocation (CWWTPR) Project
July 2020

1. Introduction

Glossary

CWWTPR	Cambridge Waste Water Treatment Plant Relocation	HGV	Heavy Goods Vehicle
DCO	Development Consent Order	HIF	Housing Infrastructure Fund
EIA	Environmental Impact Assessment	PRoW	Public Right of Way
Green Belt	Land designated as Green Belt in the local development plan	RAG	Red-Amber-Green
		SSSI	Site of Special Scientific Interest
		WWTP	Waste Water Treatment Plant

Since 1895, the current site on Cowley Road has been serving the needs of Cambridge and Greater Cambridge by receiving waste water from people’s homes and businesses, treating it and returning it to the environment.

The site also plays a vital role in storing and treating storm flows during heavy rainfall, before discharging to the River Cam. On average the site treats 1,300 litres of used water a second – that’s equivalent to more than 9 million toilet flushes a day or enough water to fill 44 Olympic size swimming pools!

1.1 Purpose of this document

Anglian Water has undertaken a detailed study to identify a suitable site for the relocation of its Cambridge Waste Water Treatment Plant. This document provides a non-technical summary of the study we carried out to identify the three site area options we are taking forward for consultation for the proposed Cambridge Waste Water Treatment Plant Relocation (CWWTPR) project (referred to as the ‘relocation project’ in this document).

Our full suite of site selection reports, including a technical summary, are available on our project website: www.cwwtpr.com

The shared planning service for Cambridge City and South Cambridgeshire Councils has recently published early proposals for the district near Cambridge North station. Those plans will be outlined in the draft North East Cambridge Area Action Plan, which will be published for consultation by the Greater Cambridge Shared Planning Service in summer 2020. Regeneration of the area requires our Cambridge Waste Water Treatment Plant to be relocated. The project forms part of the Government’s Housing Infrastructure Fund (HIF) which helps to deliver homes in areas of high demand.

1.2 Summary of the relocation project

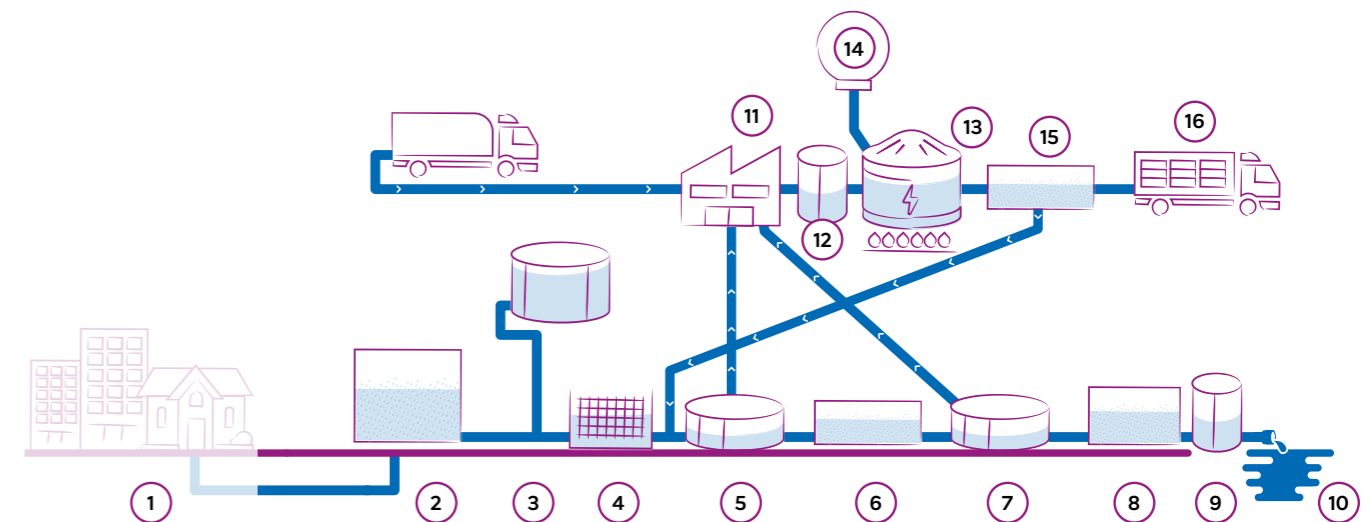
Anglian Water is proposing to relocate its Cambridge Waste Water Treatment Plant to support sustainable growth in the city, unlocking potential for thousands of new homes and employment opportunities in a new low carbon city district planned for North East Cambridge.

The new, relocated facility will continue to provide vital services to Cambridge and the surrounding area including Waterbeach in a modern, carbon-efficient treatment plant, to be developed in collaboration with the community.

The proposals for the relocation project are at an early stage. We have identified three possible site areas within which the new waste water treatment plant (“WWTP”) could be located. We want to hear your views on these site areas to help us to decide on a final site.

Components of a typical waste water and sludge treatment plant

1. Incoming sewer
2. Pumping station
3. Storm storage tank
4. Preliminary treatment (screening and grit removal)
5. Primary settlement
6. Biological treatment
7. Final settlement
8. Tertiary treatment
9. Pumping station
10. Outfall to watercourse
11. Sludge reception
12. Enhanced pre-digestion treatment
13. Biogas storage for renewable energy generation
14. Anaerobic digestion
15. Post-digestion treatment and de-watering
16. Treated sludge biofertiliser



Note: Not to scale and for indicative purposes only.

2. Our site selection process

2.1 Introduction to our site selection process

Anglian Water is undertaking a detailed site selection study to identify a suitable location for the relocated Cambridge Waste Water Treatment Plant. The aim has been to identify locations that are technically and operationally feasible, minimise environmental and community impacts and comply with national and local legal, regulatory and planning frameworks for waste water treatment plants.

The study involves a ‘sieving’ approach and comprises stages to exclude areas of land where the plant could not be relocated (taking account of, for example, flood zones and proximity to protected and statutory designated sites). The process resulted in an initial longlist of 14 site areas which were then assessed for their performance against environmental, community, operational, planning and economic criteria. Figure 1 provides an overview of this step by step process.



Figure 1 (step by step process of site selection)

3. How we identified our initial options

3.1 Overview of our initial options appraisal

Our initial options appraisal considered the project background, the existing plant’s catchment areas (see figure 2), infrastructure, policy requirements, and other strategic and technical factors. These included:

- The need for the relocation project – the relocation project is required to support sustainable growth in and around Cambridge. It will unlock the regeneration of North East Cambridge as the existing WWTP occupies a significant part of the area
- Types of waste water treatment technology – different treatment technology types have widely varying characteristics including significant differences in operational complexity, energy usage (and hence carbon emissions), economics and space needed
- National and local planning and waste policies – such as the ‘proximity principle’ (see below), minimising the impact transporting it would have on the wider environment
- Economic and environmental factors – how to minimise construction costs, environmental impacts and carbon emissions
- The number of WWTPs required – with one larger WWTP being more efficient than several smaller ones, needing less space overall and providing lower costs to customers

After considering the different factors above, we identified several possible options for the relocation project that included: a single new WWTP in the existing Cambridge and Waterbeach drainage catchment areas, north or south of the existing WWTP; a single new WWTP (or expansion of an existing WWTP) outside of the existing Cambridge and Waterbeach drainage catchment areas; or several new WWTPs (or expansion of existing WWTPs), in various locations in or near the existing Cambridge and Waterbeach drainage catchment areas. A “drainage catchment” is the area within which waste water from the connected Anglian Water sewerage network drains a locality, typically, to the nearest WWTP for treatment. It also refers to any currently unconnected localities within this area, which might as a result of growth or an application for first time sewerage, also become part of the sewerage network and drain to this WWTP.

The drainage catchment areas are shown in figure 2.

3.2 How we evaluated our initial options

The initial options outlined above were evaluated against assessment criteria using a Red, Amber or Green system (RAG), where Green is the best and Red is the worst. The things we considered were most important to assess as part of our evaluation were:

- Proximity principle – a need to treat and/or dispose of wastes in close proximity to their point of generation
- Potential environmental impact of disposing of the water – how close the new waste water treatment plant would be to the source of the water and whether a change of discharge location would be needed
- Impacts on local communities – from factors such as traffic, odour, noise and visual impacts
- Carbon emissions – comparison based on the potential scale of carbon emissions for each option
- Construction – how difficult the WWTP would be to construct and the level of impact construction could have
- Value for money – comparison of the potential scale of the lifetime costs for each option

3.3 Our conclusions

Our RAG assessment showed that the best performing option was for a single WWTP located in the north of the combined Cambridge and Waterbeach drainage catchment area. However, we also thought the option of a single WWTP located in the south of the Cambridge drainage catchment area was a possible alternative which should be considered further.

Therefore, both options were taken forward for further investigation, meaning the area which we took forward for site selection included the whole of the Cambridge drainage catchment area, north and south of the A14, together with the Waterbeach drainage catchment area, as shown in figure 2.

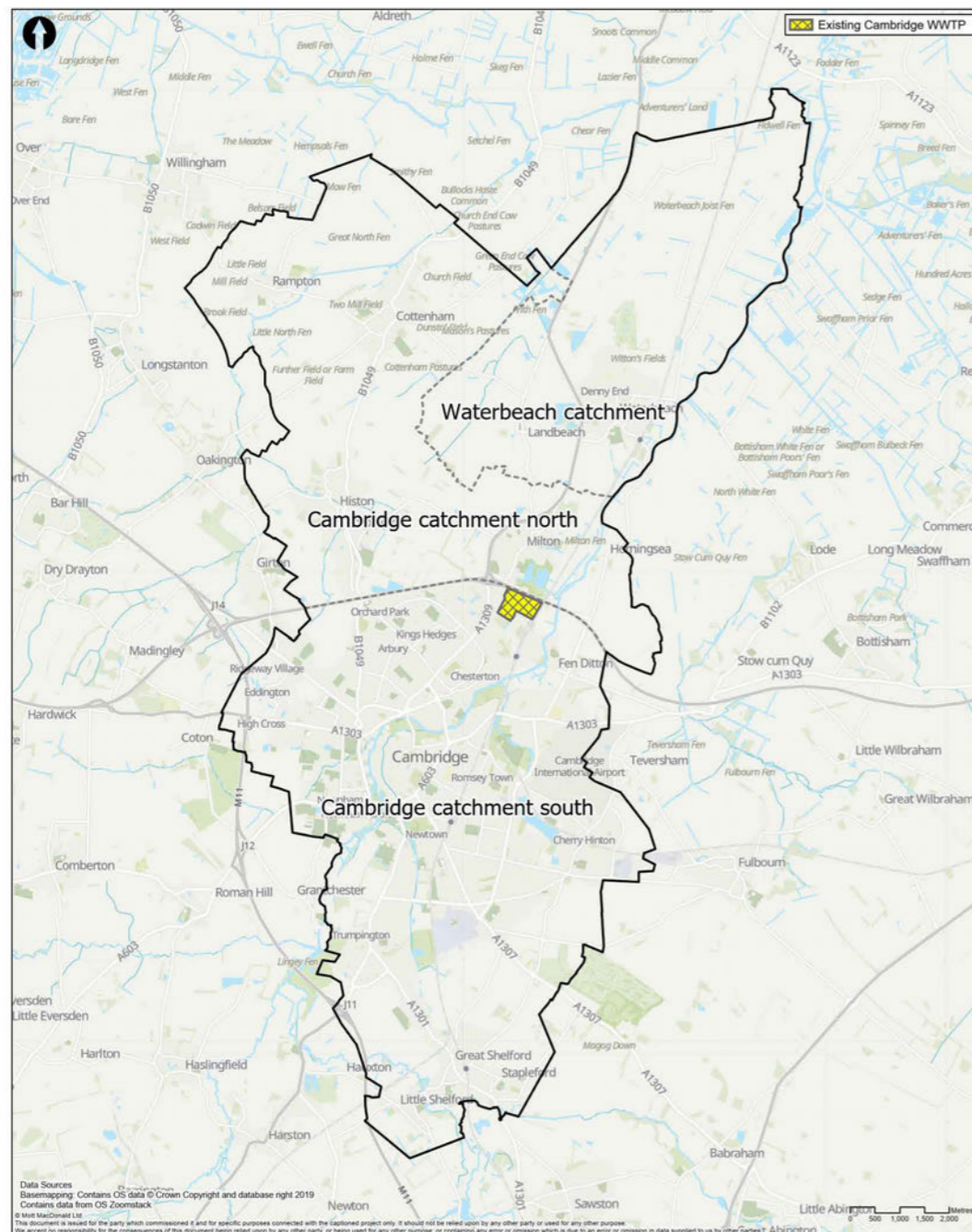


Figure 2 (showing drainage catchment areas)

4. Stage 1. How we identified a longlist of potential site areas

4.1 Objectives of Stage 1

The objective of Stage 1 was to identify a 'longlist' of potential site areas for the new WWTP which could then be taken forward for more in-depth assessment in Stage 2.

We mapped environmental, community and operational constraints in the area to see where a new WWTP could not be appropriately located. We then reviewed the remaining 'unconstrained areas' to identify the locations that would be large enough for the relocation project, which, taking into account different technology types, would require an area of around 22ha (around half the size of the existing WWTP).

The Green Belt was also identified as an important planning constraint that must be considered when selecting suitable sites for the new WWTP. However, it was considered that the Green Belt should not be used as a primary constraint at the initial stage of site selection for the following reasons:

- The Cambridge Green Belt covers a large proportion of the Study Area (approximately 50%) and the remaining area comprises the Cambridge urban area and rural areas relatively distant from the existing WWTP;
- As the Green Belt designation is a non-statutory planning policy designation, development within it may be acceptable if very special circumstances exist.

4.2 The constraints we assessed at Stage 1

The relevant national, regional and local policies were reviewed to identify the primary constraints and, where appropriate, buffer zones were applied around them. The use of buffers ensured that any unconstrained areas would be away from residential properties, protected and statutory designated sites and existing important infrastructure in order to limit any potential impacts on them.

We mapped the following constraints to identify 'unconstrained areas' that may be suitable for the relocation project:



Environmental constraints, including:

- Flood zones
- Landfill sites
- 500m buffer around protected and statutory designated sites e.g. Sites of Special Scientific Interest (SSSI)
- 100m buffer around watercourses



Community constraints:

- 400m buffer around all residential properties to reduce the risk of potential odour impacts



Operational constraints, including:

- Airfields and runways e.g. Cambridge Airport
- Major transport infrastructure e.g. buffers around A, B roads and railways
- Buffer around oil, gas and electrical infrastructure in the area

4.3 Our conclusions of Stage 1

All of the constraints and buffer zones were placed onto the Study Area map (as shown in figure 3) in order to identify the remaining unconstrained areas. The total footprint for the new WWTP site is considered to be around 22 hectares (ha). Using this footprint, the unconstrained areas were reviewed and those under 22ha were removed. The 14 remaining unconstrained areas equal to, or greater than, 22ha then became the longlist of potential site areas (site options A-N, as shown in figure 4).

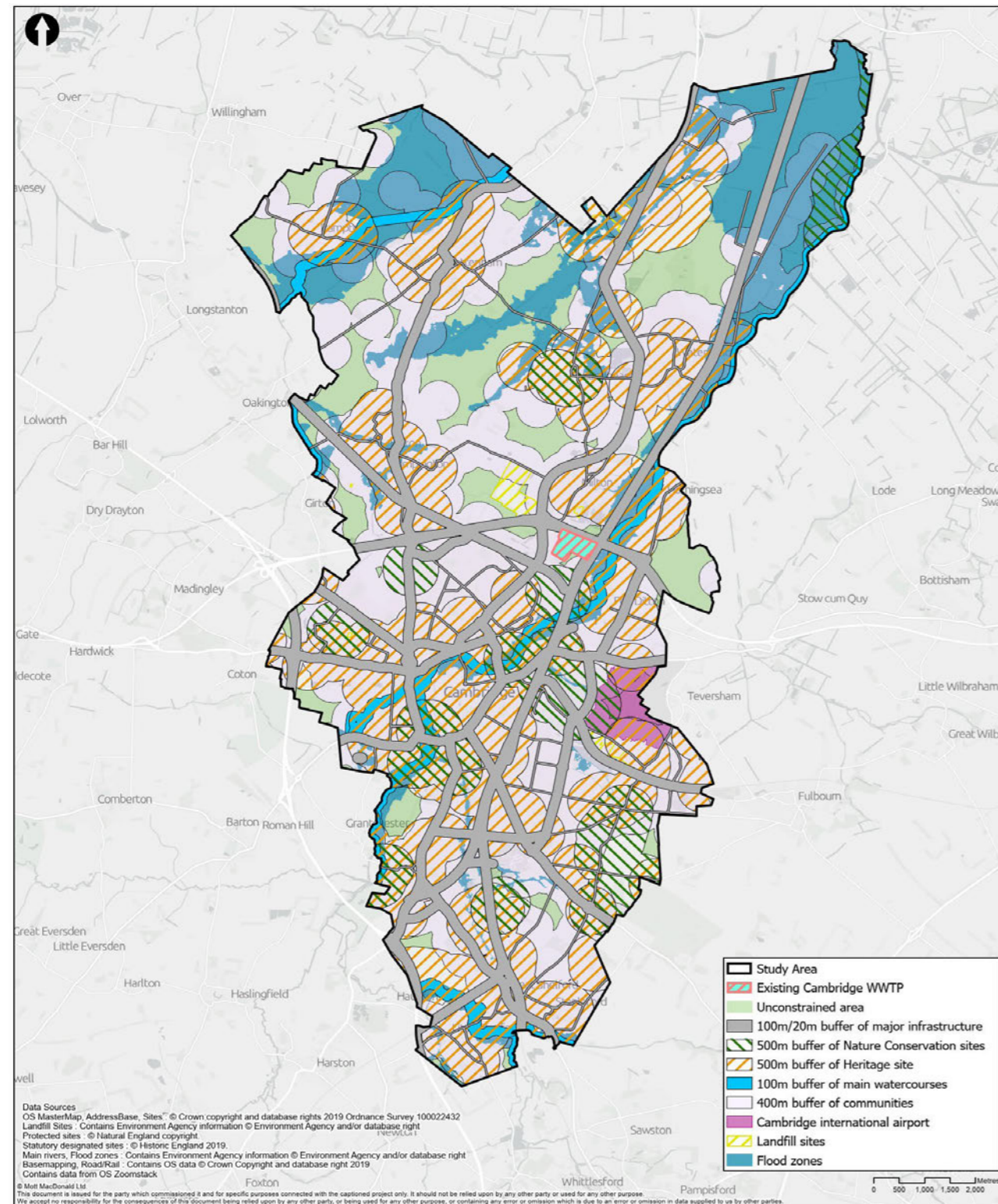


Figure 3 (showing application of constraints)

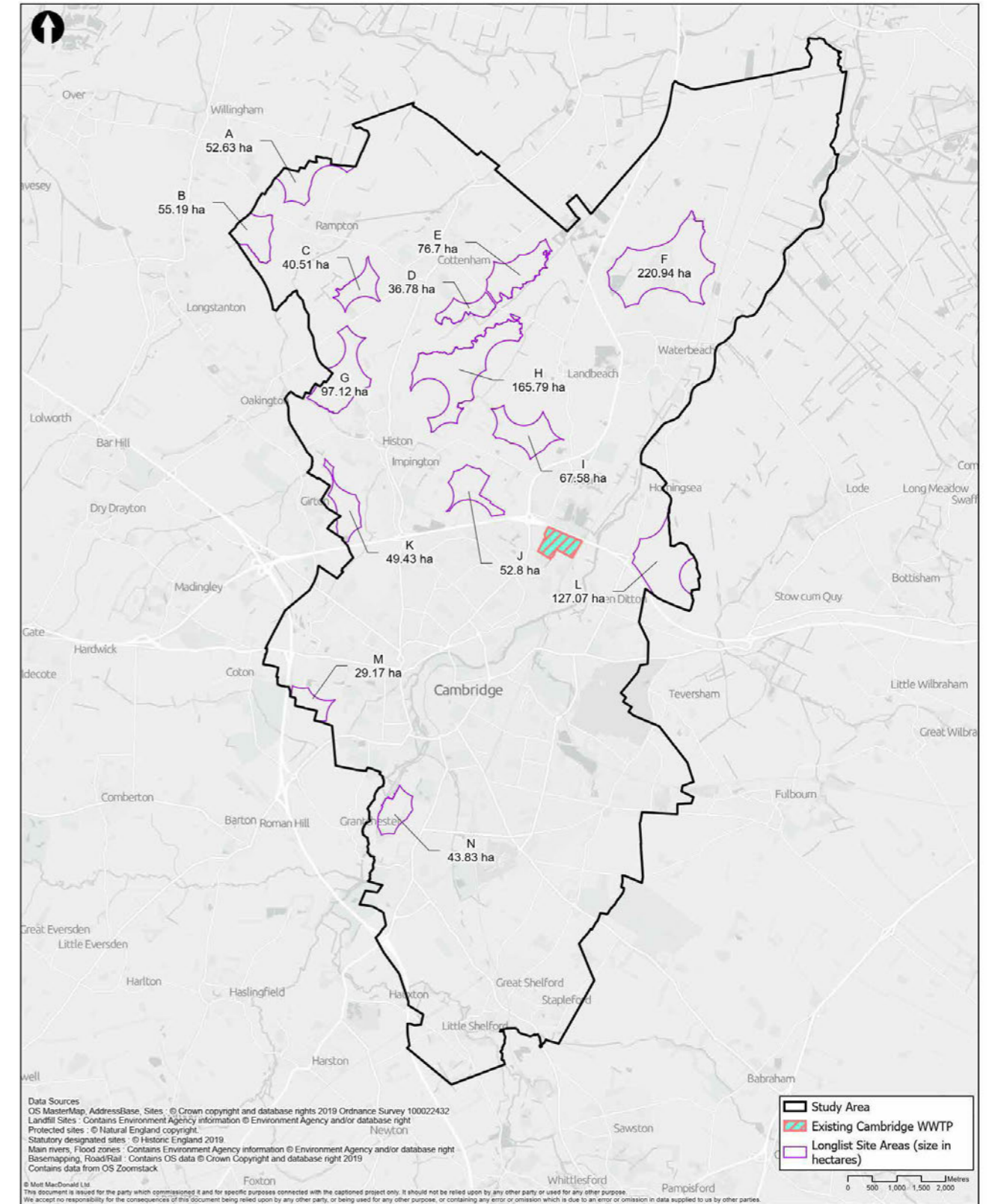


Figure 4 (showing longlist of sites)

5. Stage 2. How we identified a shortlist of potential site areas

5.1 Objectives of Stage 2

Stage 2 involved a 'sieving' approach to reduce the longlist to a shortlist of possible site areas after our initial Stage 1 assessment.

Each site area was evaluated against several different criteria using our Red, Amber, Green (RAG) assessment system. The results of the RAG assessment for each site were compared against each other to identify a shortlist of the best performing sites.

5.2 What we assessed at Stage 2



Impacts on the environment, including:

- Risk of building on contaminated land
- Potential risks to groundwater aquifers and watercourses
- Potential impacts on sites designated for nature conservation
- Potential impacts on the historic environment, for example on the setting of listed buildings or on archaeological remains
- Potential landscape and visual effects, including on Public Rights of Way (PRoWs) and communities
- Consideration of the agricultural land classification and the extent of high-grade agricultural land within the site areas.



Impacts on the community, including:

- Traffic impact e.g. throughout construction and operation (including spoil removal during tunneling)
- Noise and air quality during construction
- Local residents' amenity (i.e. recreational and rights of ways) during construction and operation of the scheme
- Impacts on community facilities and businesses in the local area



Operational constraints, including:

- Whether the shape of the site area would be suitable for a WWTP
- How easy it would be for heavy goods vehicles (HGVs) to access the site
- The length of tunnels and pipelines required, how difficult they would be to construct and also the scale of the carbon emissions resulting from construction.



Planning constraints, including:

- Policy, site allocation and planning permissions
- Sensitivity of neighbouring land uses
- Whether the site lies within the Green Belt



Anglian Water's goal is to be a net zero carbon business by 2030

A separate carbon study was undertaken to assess the carbon emissions of the relocation project. The assessment concluded that the site areas furthest from the existing WWTP (site areas A and B) had the highest estimated carbon emissions, whilst site areas which are closer to the existing WWTP (i.e. site areas I, J and L) had the lowest carbon emissions. This is due to the site areas further away from the existing WWTP requiring longer tunnels and pipelines than the closer site areas.

In terms of scale, the results indicated that the carbon emissions of site areas I, J and L were all less than half of the carbon emissions of site areas A and B. This is demonstrated in figure 5, which illustrates the RAG rating of the carbon emissions for the potential site areas.

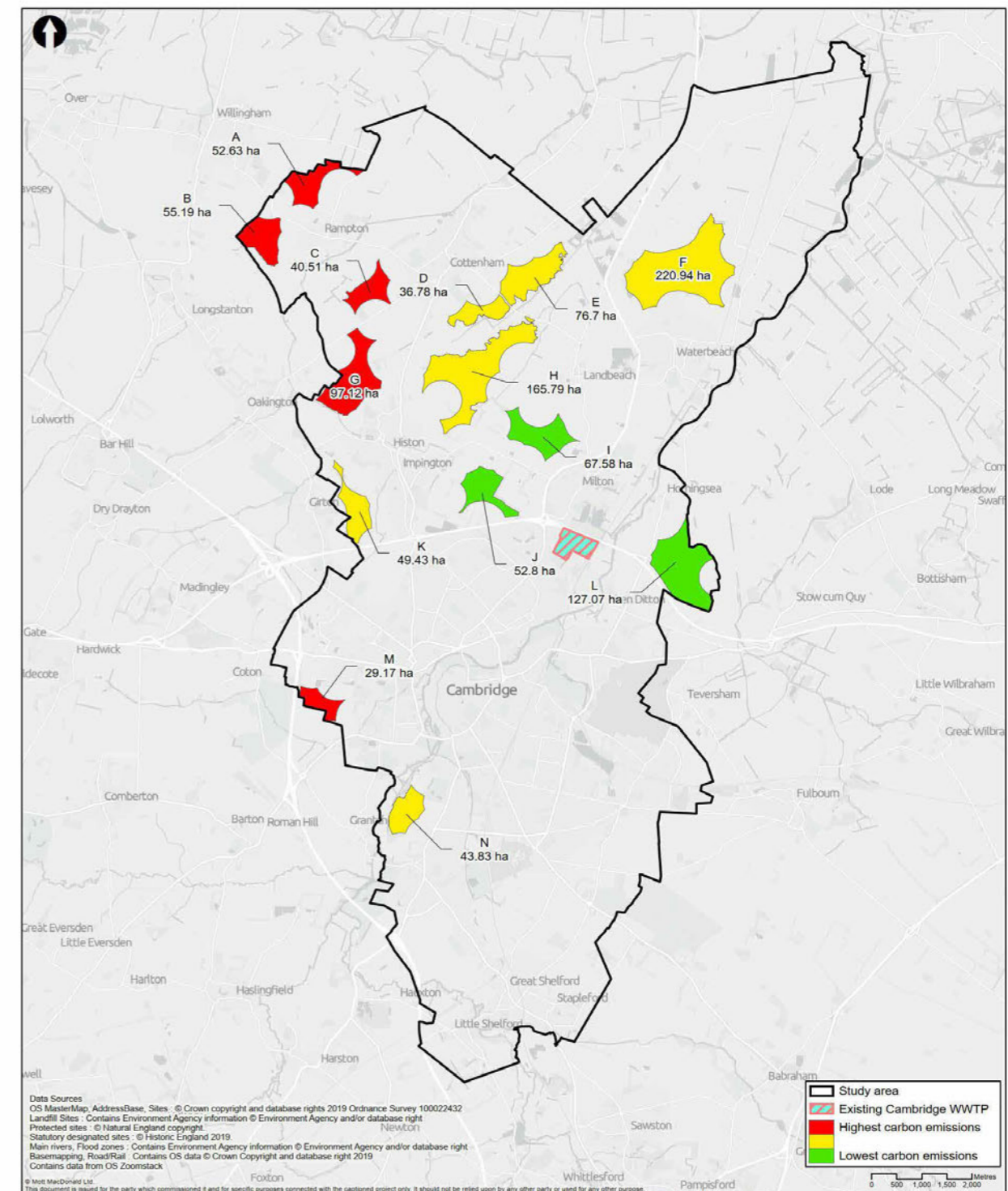


Figure 5 (showing RAG carbon emissions ratings)

5.3 Our Stage 2 conclusions

Following the completion of the RAG assessments, the results for each site area were compared with one another to identify the best performing site areas to be included in the shortlist.

There were several site areas which performed poorly against a range of important criteria and these sites were removed from further consideration. The remaining site areas (A, B, C, H, I, J and L) all had the constraints that would need to be overcome, but otherwise performed better overall than the site areas removed from further assessment.

The remaining site areas fell into two groups (site areas A, B and C and site areas H, I, J and L). Site areas A, B and C benefit from being located outside of the Green Belt but had the disadvantage of high potential impacts on local communities, as well as greater construction risks (for example due to tunneling complexity), higher carbon emissions and the risk of impacts to groundwater.

Site areas H, I, J and L are located within the Green Belt but all performed better in terms of minimising potential impacts on local communities and, as they needed shorter tunnels and pipelines to transport the waste water, they also have lower construction impacts, carbon emissions and less risk of impacts to groundwater.

These seven sites formed the shortlist of sites taken into Stage 3 of the site selection.

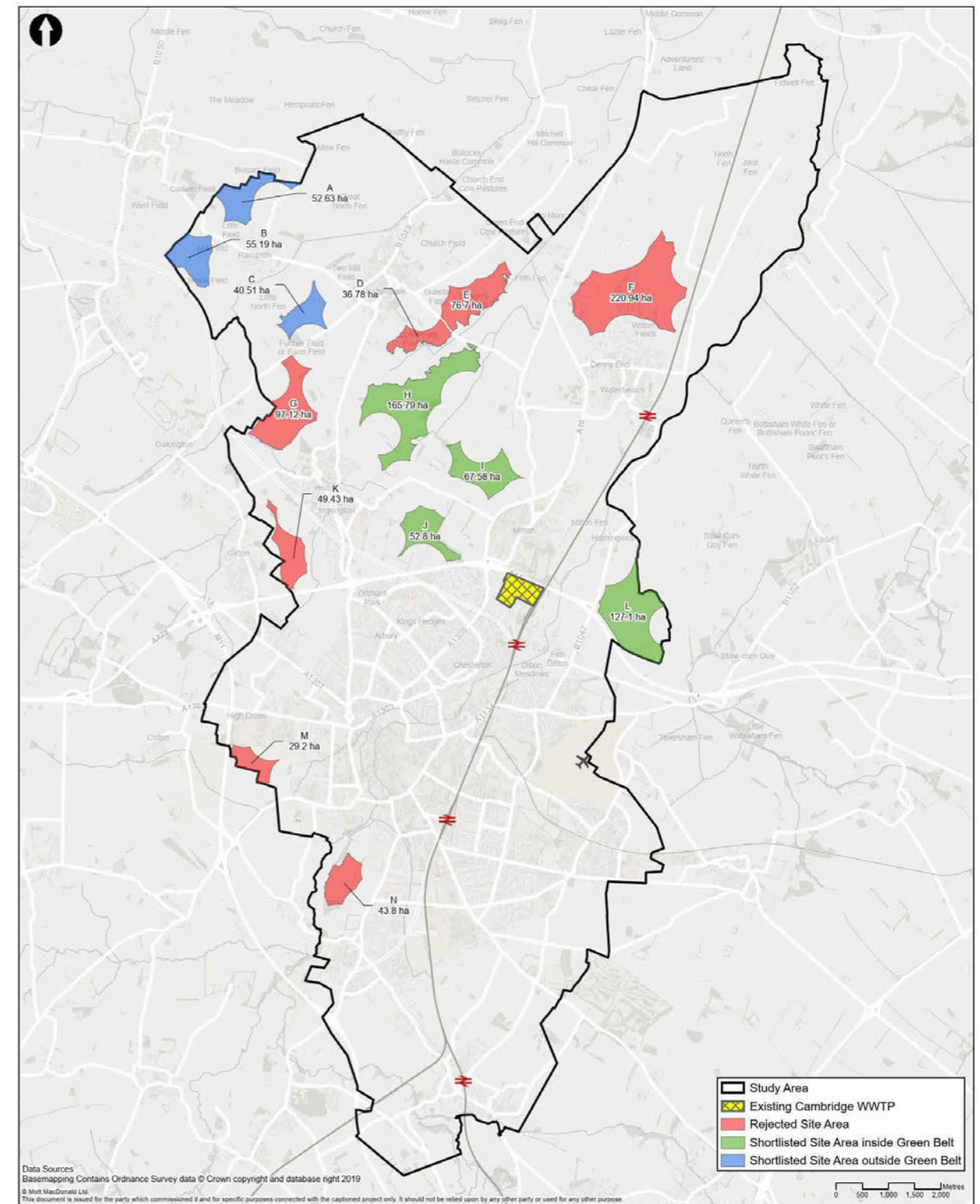


Figure 6 (Stage 2 results - shortlist of sites)

6. Stage 3. How we identified our final shortlist of site area options

6.1 The objectives of Stage 3

At Stage 3, we carried out a more detailed assessment of the remaining seven shortlisted site areas against environmental (including carbon), community, operational and planning criteria to identify the final site area options to take forward to public consultation. In addition, we also assessed economic criteria including the affordability of the sites. The proposed relocation will be funded by the Government's Housing Infrastructure Fund (HIF) which is an initiative to help deliver housing in areas of high demand.

6.2 What we assessed at Stage 3



Environmental

- Carbon emissions – for the tunnels, shafts, pipelines and pumps needed for each site over the lifetime of the project
- Landscape and visual sensitivity – potential impact on the landscape context and visual amenity for each site
- Nature conservation and biodiversity – potential impact on designated sites, habitats and protected species
- Historic environment – consideration of any potential heritage risks and constraints
- Contaminated land – assessment of the potential sources of contamination and the extent of the risk of this
- Groundwater – assessment of the potential negative impacts of the tunnels and shafts on groundwater
- Surface water – consideration of the extent to which the potential negative impacts on bodies of water such as rivers, ponds and lakes can be mitigated



Community

- Non-traffic impact of construction – assessment of potential construction impacts on noise, dust and disruption
- Traffic impact of construction – assessment of potential construction traffic impacts on congestion, air quality, noise and road safety
- Impact on Public Rights of Way – assessment of potential impacts on Public Rights of Way



Operational

- Ease of access – suitability of connecting road access for Heavy Goods Vehicles and other large or sensitive loads



Planning

- Green Belt – assessment of whether development would be within the Green Belt
- Risk to aviation – assessment of the potential impacts of development on aviation in relation to Cambridge Airport



Economic

- Affordability – would development of the new WWTP on the site be achievable and provide value for money within the limits of Government's HIF

6.3 Our Stage 3 conclusions

Site areas I, J, H and L are within the Green Belt. Very special circumstances need to be demonstrated to promote one of these site areas for development. Site areas A, B and C are outside of the Green Belt and would not need to demonstrate such circumstances.

The advantages to sites I, J and L include:

- They have the lowest carbon emissions for construction and operation of the waste water transfer infrastructures (tunnels, pipelines and pumping stations);
- The road transport routes from the main strategic road network to site areas I, J and L are also relatively shorter and would not pass through the centre of any villages. The routes for the 4 other site areas would all pass through the centre of at least one village or pass community facilities such as schools and nurseries. The relatively shorter length of the tunnel to each site area from the existing WWTP and the return pipeline or tunnel to the river, was a key factor meaning site areas I, J and L perform better than all other site areas for this criterion. Sites furthest away from the existing site (A, B, C) are significantly more costly requiring longer tunnels and pipelines.

Development at site areas A, B and C was considered to be unaffordable and not deliverable within the Government's HIF. They would also present a greater impact on the local community and would result in higher lifetime carbon emissions. As a result, it was considered that these site areas are not feasible options for development of the relocation project.

Therefore, based on criteria used to assess the site areas in this site selection process, the remaining suitable site areas in which to develop the relocation project under the Government's HIF were H, I, J and L.

Site area H presented a greater impact on the local community, higher carbon emissions and greater risk of impact on groundwater in comparison to site areas I, J and L. Therefore, we also removed site area H from further assessment.



Best performing site areas

Site areas I, J and L were assessed to be the best performing site areas. All three sites are suitable and feasible for the relocation project against the criteria assessed at this stage and will be taken forward for consultation in our phase one community consultation. They will also be subject to the final stage of site selection including environmental baseline surveys.

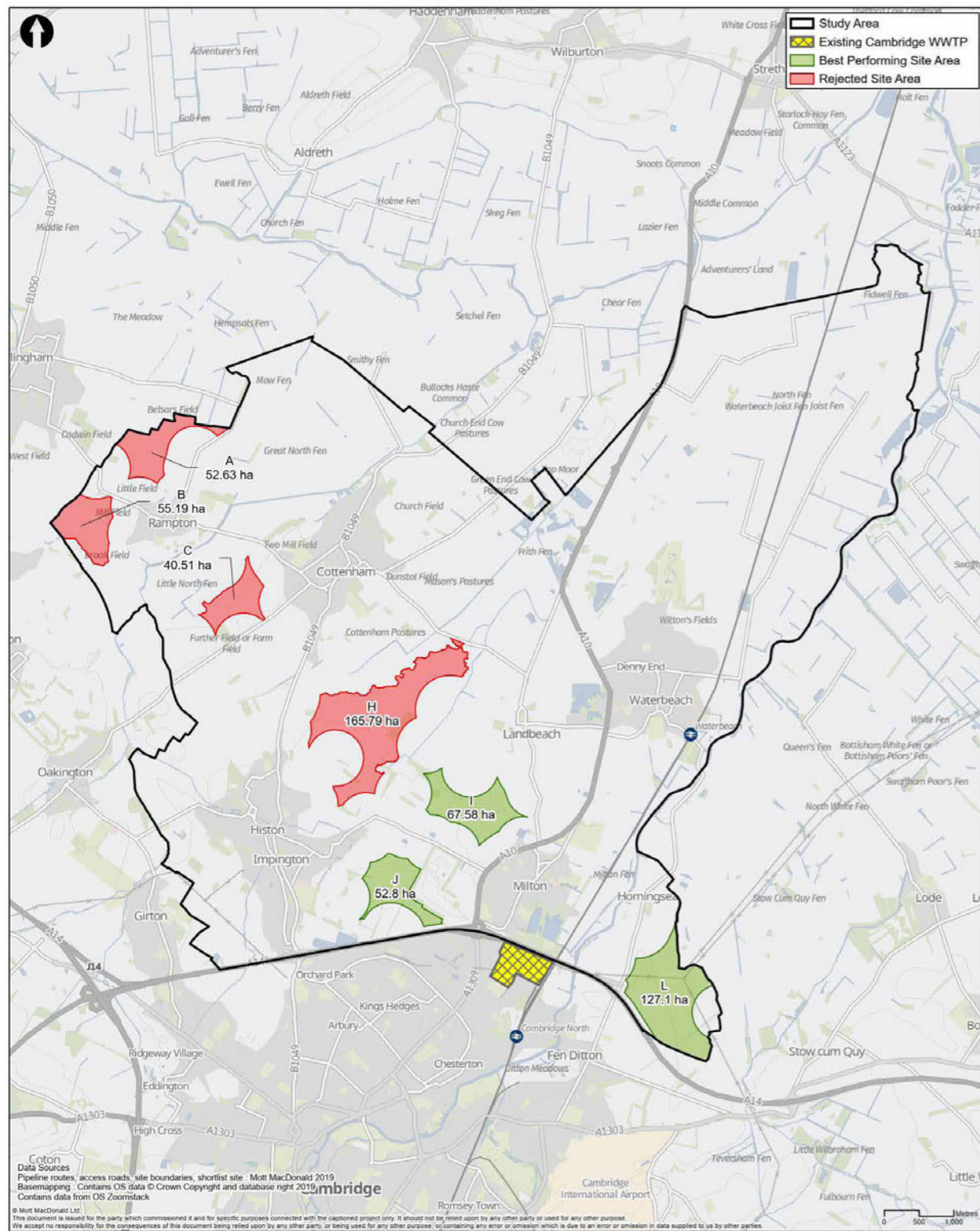


Figure 7 (Stage 3 results)

7. Next steps and how we will identify a final site

Our site selection study has identified three suitable site area options within which the Cambridge WWTP could be relocated, which we have renamed as Sites 1, 2 and 3. We will now be consulting with the community and stakeholders on which of the three site areas is most suitable for the proposed new plant.

We will be considering all feedback we receive on the three site area options during our phase one consultation. We will use this feedback together with a final assessment of the following criteria when identifying the final site to take forward into our phase two consultation:

Environmental – What are the possible impacts on the environment?

Community – What are the possible impacts on local communities?

Operational – How well does each site provide the vital service that Anglian Water needs to provide for its customers and future generations?

Planning – How well does each site meet the requirements of planning policies?

Economic – What is the cost of each option over the lifetime of the project?

Programme – Can the site area option be delivered on time?

As well as community consultation, Anglian Water will be discussing the project with a range of stakeholders, including:

- Landowners;
- Elected representatives, including parish councillors in whose area the proposals are sited and those in adjoining councils, county councillors, local authority elected members and MPs;
- Statutory consultees such as Natural England, the Environment Agency, highway authorities and bodies such as the Internal Drainage Board (IDB); and
- Local interest groups, residents' associations, and organisations such as Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust.

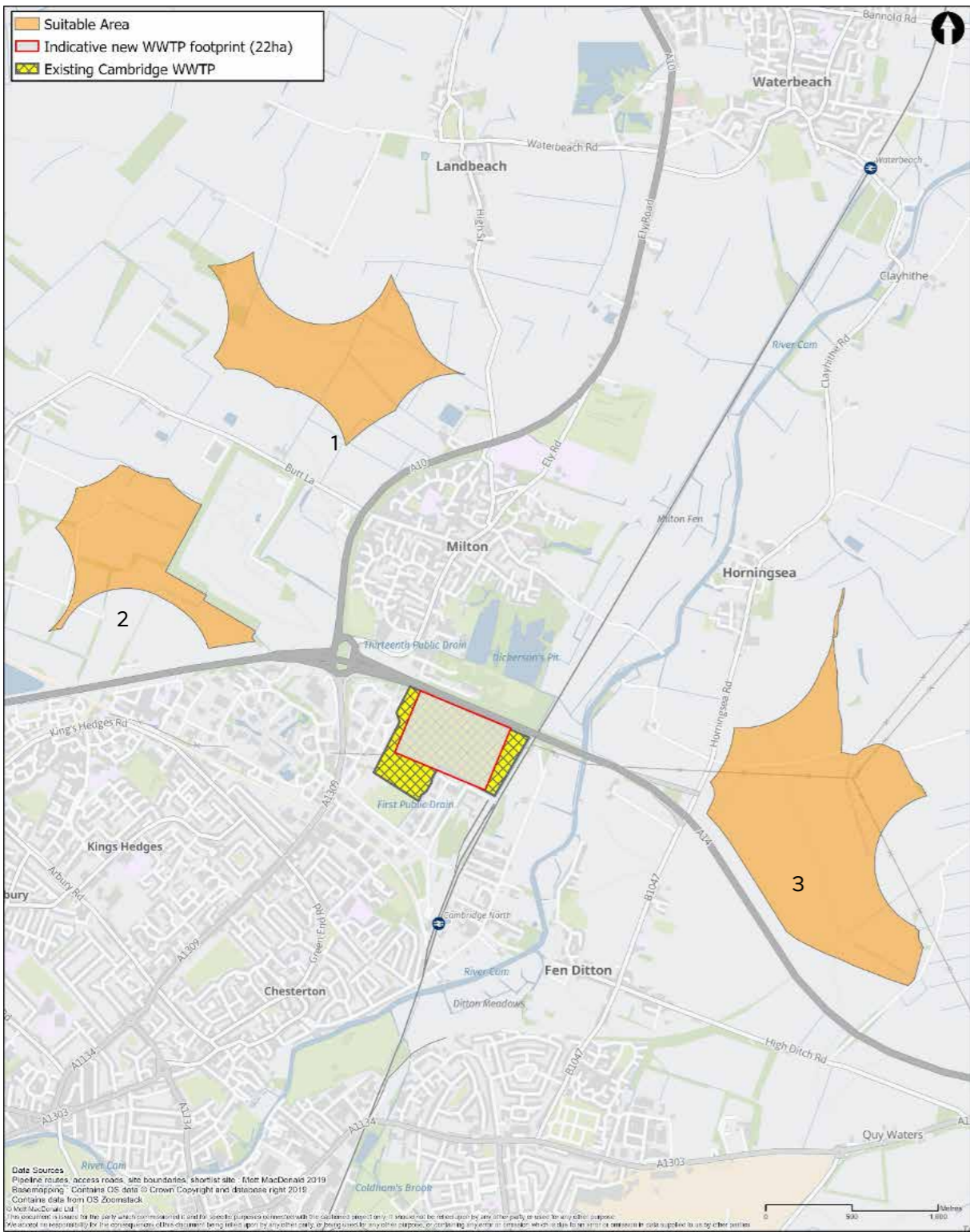
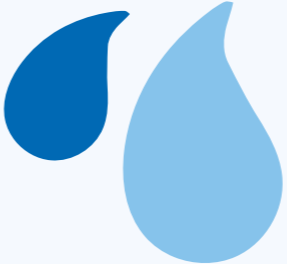







Figure 8 (three sites for consultation)



Contact us

Our consultation team is on hand to answer your questions and listen to your feedback on the proposals for the relocation project.

You can contact us by:

-  Emailing at info@cwwtpr.com
-  Calling our Freephone information line on **0808 196 1661**
-  Writing to us at **Freepost: CWWTPR**
-  Visiting our website at [REDACTED]
-  Following us on Twitter at **@CWWTPR**

If you would like this document in large print, audio or braille formats, please contact us using the details above.



Get in touch

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Emailing at info@cwwtpr.com



Calling our Freephone information line on **0808 196 1661**



Writing to us at **Freepost: CWWTPR**



Visiting our website at 

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/>