Save Honey Hill Group

Relevant Representation 18 July 2023

1. Introduction

1.1 This is the Relevant Representation of Save Honey Hill Group (SHH) (Ref 1), a community group formed in 2020 in response to the proposed relocation of Cambridge Waste Water Treatment Plant ('CWWTP') by which it seeks to register as an Interested Party (IP) in the Development Consent Order (DCO) examination process.

1.2 The proposed relocation site, Honey Hill, is an area of agricultural land in Green Belt located between the villages of Fen Ditton, Horningsea & Stow-cum -Quy. The group includes representatives on Parish Councils and those with expertise in architecture, engineering, planning and environmental assessment.

1.3 SHH has engaged with the Applicant, Anglian Water (AW) and the Local Planning Authorities (Cambridge City Council and South Cambridgeshire District Council – together 'the LPAs') throughout the last three years at their meetings, webinars and in correspondence and has responded in detail to the three AW consultations (AW 6.1.3) and to those by the LPAs on the North East Cambridge Area Action Plan (NECAAP).

1.4 References to the DCO Application documents within the text are in the form 'AW X' where 'X' is the document number given by the Applicant. Other documents referenced are listed at the end of the Representation.

2. Structure of this Representation

The remainder of this RR is structured as follows:
Section 3. Law and Policy. This deals with the legal and policy framework for decision making.
Section 4. Need. This challenges AW's submission that there is a need for relocation of the CWWTP.
Section 5. Alternatives. This highlights inadequacies in AW's assessment of alternatives.
Section 6. Development Plan. This sets out that the application is contrary to policy in the NPPF, the adopted and emerging local plans.
Section 7. Green Belt. This assesses the impact of the proposal on the Green Belt.
Section 8. Design, Engineering and Landscape Concerns. This deals with the impact of the proposal on character and appearance, including design and landscape impact.
Section 9. Carbon. This deals with the carbon footprint of the Proposed Development (PD).
Section 10. Environmental Effects, Mitigation and Harm. This considers the environmental harm which will result from the development.

Section 11. Funding and Deliverability. This challenges the funding and deliverability of the Development Consent Order.
Section 12. Overall Planning Balance. This considers the overall planning balance that the Examining Authority will be required to undertake.
Section 13. **DCO Provisions**. This considers the content of the draft DCO and requirements.

3. Law and Policy

3.1 Introduction

As the Applicant recognises in section 3.1 of the Planning Statement (AW 7.5), the DCO application must be determined pursuant to either s.104 or s.105 of the Planning Act 2008 (PA 2008). Different considerations arise for the Examining Authority (ExA) depending on which provision applies. This section sets out SHH's position on the relevant decision-making framework.

3.2 Section 104, 105 and Section 35 Direction

It is the Applicant's case that because the project is the subject of a section 35 direction, section 104 of the Planning Act 2008 applies. This is wrong in law; see *EFW Group Limited v Secretary of State* [2021] EWHC 2697 (Admin) at [58-61] per Dove J.

The Applicant's approach is evident from the Planning Statement (AW 7.5) section 3, in particular, paragraph 3.1.8, which asserts that because the project is the subject of a section 35 direction, section 104 should apply. See also 6.1.5. This is simply wrong. The direction in this case dated 18 January 2021 is procedural. It does not (and could not) change the nature of the project. It is unfortunate that the Applicant has chosen not to set out the legal basis for its position within the application documents (see what is said at 6.1.5 of the Planning Statement, that its position 'will be supported by legal submissions in due course'). There is no good reason why it could not explain its position, on a key issue in the application, within the application documents. Its choice in this regard has prevented a fair opportunity for a response to be made in this Relevant Representation. Further submissions may well have to be made in due course to remedy that position. It is respectfully suggested that the ExA requests further information from the Applicant on this matter, which can then be the subject of a response.

3.3 Capacity

While the Applicant states that '[it] does not seek to argue that the project is a nationally significant infrastructure project within the meaning of section 14(1) Planning Act 2008' (AW 1.8 Schedule of Amendments to DCO Application p.2), it also seems to intimate that the project might exceed the threshold to be considered to be an NSIP (AW 1.8 at pp.6-7). There is an obvious conflict here and lack of clarity in the documents on the Applicant's position, but if the Applicant does consider that the project might exceed the threshold in s.29 Planning Act 2008 that too is wrong. The waste water capacity of the plant is well below the relevant threshold and the Applicant is unable to point to any support in

statute, case law, policy or guidance for the proposition that imported sludge should be included in the calculation (as it accepts, see AW1.8 p.7).

AW has provided very little information in the DCO application about the planned design capacity of the new works, apart from simple headline figures, unsupported by calculations, first made public in 2019, in the Statement of Requirement (AW 7.2) and elsewhere. These are now set out in the application, in para 2.15.2 of the ES Project Description (AW 5.2.2), as a Phase 1 WWTP to provide full treatment capacity for 275,000 Population Equivalent (PE) and, in Phase 2, 300,000 PE to be provided 'some time 2036 to 2050'. That document states that sludge treatment capacity will be for 16,000 tonnes dry solids, sufficient for a population equivalent of 300,000. This latter figure differs from statements elsewhere that sludge treatment capacity of 16,000 tonnes dry solids would equate to 548,000 PE (see e.g. Planning Statement at para 2.2.11).

There is no coherent explanation or evidence in the application documents that establishes (i) what the capacity of the existing works to be relocated is (ii) the additional capacity to replace the existing Waterbeach works and to meet needs of the new town, or (iii) the additional capacity to allow for future changes in demand arising from other future housing and other forms of development in the catchment area and other future requirements including those from climate change and the need for more stringent discharge standards etc.

SHH also has concerns about the sizing of the relocated facility, set out further in Section 8 of this Representation. It also reserves the right to make further submissions on the capacity of the PD should the Applicant subsequently make a positive case that the PD is an NSIP within the meaning of s.14 PA 2008.

3.4 Application of section 105

Whether s.104 applies depends, as recognised by the Applicant in para 3.1.3 of the Planning Statement, on whether an NPS 'has effect in relation to development of the description to which the application relates'. Whether a NPS has effect depends in turn on the interpretation of any relevant NPS. If, on the correct interpretation of any relevant NPS, that NPS does not 'have effect' for the purposes of the application, an s.35 direction cannot have the effect of nonetheless bringing it within the scope of the decision-making framework under s.104 (*EFW Group Limited v Secretary of State for Business, Energy and Industrial Strategy* [2021] EWHC 2697 (Admin) at paras.58-60).

In terms of the interpretation of the NPSWW, which is the relevant NPS for the present application, the Applicant appears to rely wholly on footnote 6 to para 1.2.1 to argue that a development that is subject to a s.35 direction falls within the scope of the NPSWW. However, it is clear from the main body of the text at section 1.2 of the NPSWW (entitled 'Infrastructure covered by this NPS') that the NPS applies to waste water NSIPs, the Thames Tunnel project, associated development and ancillary matters. There is no reference in the main body of the text to waste water development in respect of which a

s.35 direction has been made. The footnote, which is inserted after the words 'the Planning Act 2008', merely identifies that a direction can be made under s.35. That interpretation is also supported by para 3.1.2 NPSWW, which when discussing the infrastructure covered by the NPS, refers only to wastewater NSIPs, not projects which fall below the threshold but are brought into the DCO process via a s.35 direction.

With regard to the Applicant's main argument that the s.35 direction, which identifies the PD as 'nationally significant', brings the PD within the scope of s.104, this is clearly incorrect in the light of the recent High Court decision in EFW. It is a prerequisite for a s.35 direction that the Secretary of State considers a project is of national significance. Therefore, in the light of the EFW case, a finding that a project is 'nationally significant' cannot be sufficient to bring an application into the scope of s.104 PA 2008 if the NPS does not have effect for that project. While the Secretary of State could have directed that s.104 applies to the Application pursuant to s.35ZA (5) PA 2008, he did not do so.

SHH considers therefore that the PD must be assessed under s.105 PA 2008.

For decisions which proceed under s.105, s.105(2) provides that the Secretary of State must have regard to any local impact report (s.105(2)(a)), any matters prescribed in relation to development of the description to which the Application relates (s.105(2)(b)) and any matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision. As no NPS has effect and there is therefore no requirement to decide the Application in accordance with the NPS (as in s.104(3)), the application should be determined primarily in line with the applicable development plan and national policy, although the NPSWW will also be a material consideration. As conceded by the Applicant, where the NPSWW does not have effect (and therefore s.105 applies), the presumption in favour of granting consent for wastewater NSIPs set out at para 3.1.2 NPSWW will not apply (Planning Statement, para 3.1.9) and the National Planning Policy Framework (NPPF) and is the appropriate national framework for determining this application.

Significant weight must therefore be given in the determination of the Application to the relevant policies in the adopted development plan, namely the South Cambridgeshire Local Plan 2018 (SCLP), the Cambridge City Local Plan 2018 (CLP), the Cambridgeshire and Peterborough Minerals and Waste Local Plan 2021 (MWLP) and the Waterbeach Neighbourhood Plan 2022 (WNP), as well as those in the National Planning Policy Framework (NPPF). Some weight can be given to the NPSWW as a material consideration. Limited weight if any should be given to emerging policy in the North East Cambridge Area Action Plan (NECAAP) and the Greater Cambridge Local Plan (GCLP), which have not yet been submitted for examination.

The applicable policies and the compliance of the PD with the NPPF and local plan policies is set out in Annex A 'National and Local Planning Policy Compliance' and discussed further in Section 6.

4. Need

4.1 Introduction

The Applicant's case on need is flawed, i.e., it has not demonstrated any need for new waste water infrastructure. Rather, the Applicant relies on an alleged need to release the land on which the existing Cambridge Water Recycling Centre (CWWTP) sits for housing (See for example Planning Statement, AW 7.5 para 2.1.1.) That is not a type of need which is recognised in the NPSWW. SHH will demonstrate that there is no operational need for the PD, no support for the PD in relevant development plan policy and that the Applicant's case on housing and employment need is unsupported by evidence.

4.2 No Operational Need for Relocation

The Applicant explicitly accepts that 'there is no operational need for the relocation of the Cambridge WWTP or environmental reasons which would result in a need for relocation' (AW 7.5 para 2.4.24). It concedes that because the project is not identified in the Environment Agency's (EA) Water Industry National Environment Programme (WINEP), need cannot automatically be assumed, and therefore it is necessary to demonstrate how the project is responding to the need identified in the NPSWW. (AW 7.5 para 2.4.26). No assessment of how the project responds to need identified in NPSWW has been undertaken, depriving SHH of a fair opportunity to respond to the Applicant's case at this stage. To the extent that the Applicant appears to rely on compliance with NPSWW as demonstrating need, accordance with its provisions (which is not accepted by SHH) cannot generate a need for the development where there is no operational requirement for relocation.

First, the Applicant acknowledges that the PD is not identified in the WINEP and therefore need for the PD cannot be assumed (Planning Statement, paras.2.4.23 and 2.4.26). NPSWW deals with the need for new waste water infrastructure at section 2.5. This section is clear on its face that need for new waste water infrastructure projects will only have been demonstrated where that project is in WINEP or listed in the NPS, namely the Deephams Works and the Thames Tunnel. While the Applicant relies on the reference to 'unforeseen projects' in para 2.5.4 NPSWW as indicating that need could be demonstrated in other ways, in order to be considered as being needed such unforeseen projects must satisfy the criteria in para 2.5.3, namely the EA must have concluded that the project is necessary for environmental reasons and included it in the WINEP.

Second, the Applicant also concedes that the PD will never come forward in WINEP because 'despite the environmental and economic benefits arising from the PD, there is no operational need for the relocation of the Cambridge WWTP or environmental reasons which would result in a need for relocation' (Planning Statement para 2.4.24). Therefore, notwithstanding the Applicant's reliance on the potential for increased capacity and treatment of storm flows at the relocation site (see for example Planning Statement paras 2.2.9 and 2.2.10) and reference to need for the PD 'in water treatment terms (Planning Statement para 2.2.15) there is in fact no operational or environmental need for

additional capacity of treatment. This is further confirmed by the Applicant's acknowledgement that 'in the absence of consent for this DCO project, Cambridge and Waterbeach's combined and growing waste water recycling needs will need to be served at the existing Cambridge WWTP' (Planning Statement para 2.3.34). The Applicant does not argue that those needs could not be served by the existing Cambridge WWTP. Therefore, it is clear that the potential for operational improvements is a benefit of the development. Increased capacity, treatment of storm flows or the potential for improvement of the water quality of the River Cam cannot be relied on as part of the need case, as if they were needed, the requirement for such actions would be included in WINEP.

Third, the Applicant asserts that a project could be needed if it accords with the wider principles in NPSWW, and notes that references in the NPSWW to population growth (for example paras 2.3.8 and 2.3.9) are expressed in general terms (Planning Statement para 2.4.25). However, paras 2.3.8 and 2.3.9 NPSWW are concerned with the impact of population growth on the ability to meet legal standards for water quality (para 2.3.8) and on the capacity of the existing sewerage system (para 2.3.9). They are therefore concerned with operational need and not any need or demand for the release of land on which an existing WWTP is located. Similarly, the other 'main drivers of demand' in section 2.3 of NPSWW all relate to operational factors, namely environmental standards, the impact of climate change on sewer and treatment capacity and the resilience of existing infrastructure. The last of these refers to the potential need for 'the replacement of infrastructure in poor condition, or at the end of its life cycle' – neither of which are claimed in relation to the existing CWWTP (para 2.3.11 NPSWW).

The Applicant asserts in the Planning Statement that a need can also arise for the purposes of granting development consent where there is 'the need for land occupied by existing facilities for other compelling reasons' (e.g., at paras 2.4.27 and 6.2.2). However, such a concept does not find any expression anywhere in the NPSWW, PA 2008 or in any case law and appears to have been conjured up by the Applicant.

4.3 Lack of Development Plan Policy Support for Relocation

The PD is not an NSIP and therefore should be tested under s.105 PA 2008, primarily against the adopted development plan. The relocation of the CWWTP is not supported by the adopted local plans. Emerging policy is also at an early stage of development (meaning little if any weight should be given to it) and is described as being 'contingent' and 'predicated' on the outcome of this Application rather than requiring or formally supporting the application to make a DCO. The relocation site is not proposed for release from the Green Belt in the emerging GCLP, nor is there any suggestion that exceptional circumstances exist which would justify such release. There is therefore no material policy support for the PD in the adopted or emerging Local Plans.

The existing Cambridge WWTP site is identified in the adopted Local Plans as part of a wider site allocation for mixed-use development that is employment-led with a range of

supporting commercial, retail, leisure, and residential uses, subject to acceptable environmental conditions (CLP Policy 15; SCLP Policy SS/4). The adopted policies emphasise (in the third paragraph of CLP Policy 15 and Point 3 of SCLP Policy SS/4) that the amount of development, site capacity, viability, timescales, and phasing of development will be established through the preparation of an Area Action Plan (AAP) for the site. The supporting text to the policies recognises that the policy requirements could be satisfied through the onsite redevelopment of the CWWTP, with a smaller footprint (CLP para 3.35 and SCLP para 3.34). Neither of these policies establishes any policy requirement for relocation of the CWWTP nor indicates that there is any need for relocation in order to achieve the aims of the policy. The adopted development plan therefore provides no formal support for the relocation of the CWWTP.

In relation to emerging policy, this is at an early stage of the plan process and should therefore be given very limited weight in the consideration of this Application pursuant to para 48 of NPPF. NECAAP, which is being developed pursuant to CLP Policy 15 and SCLP Policy SS/4, has not yet been submitted for examination and is paused pending the outcome of this Application. The Greater Cambridge Local Plan (GCLP), an emerging joint plan being prepared by Cambridge City Council and South Cambridgeshire District Council, is at an even earlier stage of proceedings, with a further regulation 18 version of the Plan anticipated to be published later in 2023.

Both NECAAP and GCLP have been described by the LPAs as being 'contingent' and 'predicated' on the relocation of the CWWTP taking place. They have been prepared on the basis and assumption that the relocation takes place, but relocation is not a policy requirement of either emerging plan. This is also reflected in the consultation response submitted on behalf of the LPAs to the EIA scoping consultation request issued by the Planning Inspectorate on 20 October 2021 (Planning Inspectorate Scoping Report Opinion). The LPAs emphasise, pages 6 and 7, that the relocation of the CWWTP is not a requirement of NECAAP because 'we are not requiring the relocation, but the NECAAP and the emerging joint Local Plan have identified the opportunity that the relocation creates for homes and jobs in the North-East Cambridge Area'. This is reflected in the Planning Statement for the Application, which acknowledges that the Draft NECAAP does not contain any specific policy advocating and supporting the relocation of the existing WWTP off-site in order to achieve the spatial strategy (para 2.3.15). The planning process for NECAAP and GCLP will not proceed to regulation 19 stage before the determination of the DCO, indicating that the LPAs accept that if the DCO is not approved it will be necessary to reconsider and amend the plans (Planning Statement para 2.3.28).

The Planning Statement relies on a Development Strategy Update report (Ref 2) produced as part of the GCLP and approved by the LPAs in early 2023. The Planning Statement places a great deal of weight on the Applicant's interpretation of that Development Strategy Update as supporting the case for relocation (see, for example, para 2.3.33). What that strategy makes very clear is that there is still a great deal of uncertainty regarding the spatial strategy of the emerging Local Plan and the amount of development

that it will be possible to deliver (in particular, regarding water supply, housing delivery and other infrastructure and environmental constraints).

However, the emerging plans still do not set out any requirement or direct policy support for the relocation of the CWWTP. It is clear from the accompanying Sustainability Appraisal Addendum (Ref 3) at para 2.30 that the impacts of relocation of the WWTP have not been taken into account in the sustainability assessment of the redevelopment of North-East Cambridge, as the relocation has been treated as a separate and prior process (Tables 3 and 4 and para 1.42). The report confirms that the later stages of plan-making for GCLP and NECAAP are dependent on the outcome of this Application (para 4.5).

As an interim update, the Development Strategy Update (Ref 3), the Sustainability Appraisal Addendum and supporting reports have not been subject to consultation and it is incorrect to describe the DSU as a 'regulation 18 preferred options' report (Planning Statement para 2.3.33). Those documents also indicate that there is a significant degree of uncertainty regarding the amount of employment and housing that can be planned for in the GCLP due to possible constraints of water supply and housing delivery (Development Strategy Update Report paras 3.25 and 3.29; Sustainability Appraisal Addendum paras.1.3 and 1.20). While the report seeks in principle confirmation of North East Cambridge as a strategic site, it confirms at para 4.3.1 that 'proposals are contingent on the separate Development Consent Order' sought for relocation and that 'the Local Plan itself does not require the relocation of the WWTP to take place'. There is also a marked contrast between the approach to the impact on the Green Belt of another proposed strategic site, at Cambridge Biomedical Campus, where the report cautiously recommends further exploration of Green Belt release on the basis of the national and international significance of the biomedical cluster (para 4.3.3), while there is no mention at all of the release of Green Belt land required to facilitate the development of North East Cambridge due to the relocation of the CWWTP.

4.4 Weaknesses in the Applicant's Case on Housing and Employment.
With regard to the need for housing and employment, SHH will make further representations seeking to establish that there is substantial uncertainty about whether there is the 'need for land occupied by existing facilities' and that the need is capable of being satisfied through consolidation of the CWWTP on the existing site with appropriate mixed-use development being promoted in the NECAAP area.

At present the need for housing and employment is asserted rather than demonstrated in the application documents and SHH wishes to have a fair opportunity to test such evidence as is relied upon by the Applicant. It would not be logical to place material weight on mere assertion, particularly where the need for housing and employment (and the need to release the current WWTP site) is a matter which would ordinarily be addressed via the local plan process, which is the proper forum intended to consider such an important issue as the release of a large area of Green Belt for development.

SHH will make further representations on elements of the Applicant's need case, as set out below, and will make additional representations on housing and employment need in the Greater Cambridge area, if other points are raised during the Examination:

(i) The LPAs are now able to adjust local housing targets downwards to reflect local circumstances, in line with the Government's intentions in the Levelling Up and Regeneration Bill.

(ii) The 2022 based 'objectively assessed need' (OAN) for housing in Greater Cambridge, set out in the DSU, and the assessment used the GCLP First Proposals (FP), are both 'employment growth driven' and present an OAN that is well in excess of 'demographic need'. Local employment projections are very unreliable as the basis for strategic planning for housing provision. The assessments also use a 1:1 matching ratio of housing to future jobs to be met within the plan area. The Cambridge Travel to Work Area (TTWA) extends far beyond the City and South Cambridgeshire, and housing in the local plan area is far less affordable than in that wider TTWA. These and other assumptions exaggerate the 'housing requirement' in the GCLP area and should be reconsidered before this is confirmed.

(iii) There is a sustainable planning, housing, and economic growth case for actively dispersing part of any housing and employment requirement predicted to arise in the Greater Cambridge local plan area to towns to the north, west and east, in the rest of Cambridgeshire and Peterborough and potentially further afield. These opportunities have not yet been explored with the relevant local authorities.

(iv) The adopted local plans and the GCLP FP together have already identified housing sites and locations with an overall capacity well in excess of the objectively assessed need (OAN) of 44,000, plus a 10% buffer, for the period 2020 to 2041, as set out in the GCLP FP Development Strategy Topic Paper Housing Trajectory Nov 2021. Over and above that provision, there are other sites, for example west of Cambourne and the Bio-Medical Campus, which are identified in the FP, but without quantified housing capacities. In the case of the Cambridge Airport allocatedsite, it is likely that, in practice, given the extent of the site and the published intentions of the owners, this new neighbourhood can accommodate far more than the nominal amount of housing, 7,000 dwellings, assumed in the FP.

(v) Some combination of capacity on all of these strategic sites could be brought forward to provide sustainable alternatives to the presently proposed housing provision on NECAAP, both within the local plan period to 2041 and beyond. This is likely to be the case, even if the higher OAN of 51,000 households for the period 2020 to 2041 presented in the 2022 based projections and reported in the DSU, is found to be sustainable and deliverable.

The Applicant already recognises that some development could come forward on the existing CWWTP site with the existing works still in situ. It notes that areas of the CWWTP which are currently non-operational could come forward for redevelopment in advance of the decommissioning of the CWWTP (AW 5.2.2 ES Chapter 2: Project Description para 1.7.3). The LPAs already assume in their housing trajectories that 650 dwellings or more could come forward on sites across NECAAP in advance of any relocation of the CWWTP.

The Greater Cambridge 5 Year Housing Land Supply Study 2023 (p39) makes it clear that the present rates of housing development are running substantially ahead of the requirements set out in the adopted Local Plans and also notes the ability of sites already allocated in those plans to meet that level of demand going forward to 2031 and beyond.

The argument that NECAAP is the most sustainable strategic location in Greater Cambridge for housing development (see Planning Statement at para 2.1.3) needs very critical scrutiny, both in absolute terms and in comparison with alternative locations already set out in the emerging plan. Other strategic locations, such as Cambridge Airport, are or will be provided with high quality local public transport as well as a wide range of employment provision in close proximity or otherwise accessible via public transport. The particularly high overall density of housing provision proposed in NECAAP is dependent not just on the relocation of the WWTP to a Green Belt site, but also other off-site provision including a park and ride site in the Green Belt as well as other off-site open space, recreation, and biodiversity provision. The high sustainability rating claimed for NECAAP is based on assessed transport/carbon benefits derived from questionable assumptions about residents' travel and other behaviour in terms of destinations, frequency, and modes. Limits to the NECAAP trip generation budget, derived from the primary road network capacity, will adversely affect the ability of the site to deliver market appropriate housing.

There are numerous businesses, mainly light industrial, transport and distribution uses located within the NECAAP area, which will, if displaced, require relocation to other sites within or close to Cambridge. There are few, if any, relocation sites likely to be available in Cambridge for business uses which cannot afford high rents.

There are many aspects of the NECAAP proposals which have attracted substantial and well-informed opposition from a range of stakeholders, including public bodies and it will be scrutinised critically before and at examination.

NECAAP is also a complex multi-owner brownfield site in contrast to other strategic locations. Full delivery of NECAAP is dependent either on the agreement of a considerable number of landowners, beyond Anglian Water and the City Council, or the successful use of compulsory acquisition powers. Major sites, for example, the main or 'gateway' site at and to the North of Cambridge North railway station have already been subject to planning applications for mixed-use employment-led development by their owners. A major application on this site is being pursued through an ongoing appeal by Brookgate Ltd (APP/W0530/W/23/3315611). There are also other proposals from landowners within NECAAP looking to meet the urgent demand for quality business and research employment floorspace, rather than housing. For example, an application for demolition and erection of new research buildings (23/01487/FUL) at the St. John's Innovation Park is awaiting decision.

In line with the Development Strategy Update, the LPAs are reviewing both the quantity, location and delivery of new housing and employment provision to be made in the GCLP, including the sustainability of all the strategic sites, in the light of the numerous constraints, not least those of water supply. Until this is completed, and the findings scrutinised, it would be premature to conclude that there is the claimed need for the WWTP relocation to release the whole of the core site for housing.

SHH submits that all the above matters reduce the weight that should be given to the 'need for the site of the existing facilities' as a justification for the relocation of the CWWTP.

5. Assessment of Alternatives

5.1 Introduction

SHH will demonstrate that the Applicant has adopted an unlawfully narrow definition of the PD and has failed to carry out a lawful assessment of the reasonable alternatives to the PD.

5.2 Environmental Impact Assessment (EIA)

The definition of the PD – the project – is crucial for EIA development as it is the effects of the project which must be assessed in the ES (*R (Ashchurch Rural Parish Council v Tewkesbury Borough Council* [2023] EWCA Civ 101 at para 73). A decision-maker must apply its mind to the question of what the project is for the purposes of EIA, including whether the PD applied for is part of a wider scheme or larger development. The fact that there may not yet be firm development proposals for that wider scheme is irrelevant where the PD clearly forms an integral part of an envisaged wider future development, without which the original development would never take place. Similarly, any difficulty in assessing the wider proposals due to a lack of information is not a justification for excluding them from the scope of the ES, if an integral part of the project (*Ashchurch* at paras 80-90).

The Applicant has chosen to exclude the demolition, site clearance and remediation of the existing works from the scope of the project (AW 5.2.2 ES Chapter 2 para 1.4.7). SHH disagrees with this approach, because these are directly consequential works which are necessary to deliver the purpose of the relocation project, which is the release of a clean site for housing development. It is also the polluting landowner's responsibility to demolish and remediate the site or to secure its remediation before disposal to avoid any residual liabilities. With minor exceptions, there is no reasonably beneficial use that can be contemplated for the existing buildings and structures on the site. The Applicant relies on the fact that consent for the housing redevelopment of the CWWTP site will be sought by a different applicant as a separate planning permission at a later date to exclude the redevelopment of the existing works site from the scope of EIA of the project. On the basis of *Ashchurch*, this is not a sufficient justification for excluding it from the scope of

the project, as the relocation is a 'direct consequence' and intended to allow that housing development to be undertaken.

The adverse environmental effects of decommissioning the existing works, which include carbon emissions or transport effects, must be taken into account in reaching a decision whether or not to grant the DCO.

On the same basis, demolition should have been included as part of the scope for the assessment of all alternatives to the PD that would require whole or partial demolition, site clearance and remediation.

Considering NECAAP merely as another scheme in a 'cumulative' assessment, is also, in this instance, not sufficient.

5.3 Legal Framework for Consideration of Alternatives

As well as the statutory requirement to consider alternatives in Reg 14(2)(d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the policy guidance in paras.3.4.2 and 3.4.3 of NPSWW, the DCO process must also comply with the common law on the consideration of alternatives in the planning context (*R (Save Stonehenge WHS Ltd) v Secretary of State for Transport* [2021] EWHC 2161 (Admin), [2022] PTSR 74 at para 259). Where there are clear planning objections to a development on a particular site 'it may well be relevant and indeed necessary' to consider whether there is another more appropriate site, and this will be primarily so 'where the development is bound to have significant adverse effects and where the major argument advanced in support of the application is that the need for the development outweighs the planning disadvantages inherent in it' (*Stonehenge* at para 269). The requirement to consider alternatives arises in 'exceptional circumstances' and does not extend to schemes which are 'vague or inchoate, or which have no real possibility of coming about' (*Stonehenge* at para 270). However, this does not mean that in the absence of detailed and worked up alternatives, the possibility of the development taking place on an alternative site should be discounted, nor that it is necessary for SHH to point to a specific alternative scheme in order for its arguments on alternatives to be considered (*London Historic Parks and Gardens Trust v Minister of State for Housing* [2022] EWHC 829 (Admin)). *Stonehenge* also establishes that cost is not a reason to exclude alternative, less harmful options from consideration by the decision maker (*Stonehenge* at paras 247, 262 and 277).

5.4 Failure to Assess the Feasibility of Retention of the Works on Site

In SHH's view, proper consideration must be given by the Applicant to the retention and consolidation of the CWWTP on its existing site. That is an obviously material consideration which must, as a matter of law, be taken into account as part of the determination of the DCO. The ES demonstrates that the PD will have significant adverse residual effects on the environment. The only justification for those effects is the asserted need for relocation. A logical prior question is therefore whether relocation is necessary,

or whether the need could be satisfied through retention.

Further reasons why it is necessary to consider alternatives include the fact that the relocation of the CWWTP will involve inappropriate development on a large area of land in the Green Belt (an asset of national importance), the fact that such consolidation is envisaged by the adopted Local Plans (therefore it is neither vague nor inchoate) and the fact that the claimed need for the development is not an operational or infrastructure-based need. As will be demonstrated, there has been no real consideration of the retention and consolidation of the CWWTP as an alternative to relocation.

Retention and consolidation of the CWWTP on part of the existing site is a reasonable and obviously material alternative that should have been assessed. It was not: the discussion in ES Chapter 3: Site Selection and Alternatives (AW 5.2.3) at paras 1.2.1 to 1.2.6, is wholly inadequate.

As explained above, Local Plan policies for the North-East Cambridge area promote high-quality mixed-use development on the site while retaining the CWWTP on site. They also commit to carrying out feasibility studies to assess whether it would be possible to provide new treatment facilities on the current site as part of the initial preparation of the AAP.

As recognised by the Applicant at para 2.3.13 of the Planning Statement, at the issues and options stage of the plan process for NECAAP in 2014, four options for the redevelopment of the wider CWWTP site were considered, of which option (iv), relocating the CWWTP offsite, was rejected as a non-starter due to the cost and challenge of relocating the CWWTP. Paras 2.3.12 to 20 of the Planning Statement confirm that no further testing of the feasibility of retaining the CWWTP on site has been undertaken by the LPAs or by the Applicant in the preparation of the DCO application.

An application to the Government's Housing Infrastructure Fund was made in 2018 by Cambridge City Council, SCDC and the Cambridgeshire and Peterborough Combined Authority (CAPCA). This sought funding on the sole basis of a full relocation package and did not present any costed alternatives, such as consolidation and release of parts of the existing works site for development, which as the local plan policies make clear, would have permitted a mixed-use development including housing on land released from or adjoining the existing works. The HIF grant was approved in March 2019.

The amount of HIF grant approved was sufficient for a long tunnel option that could have allowed a relocation site to be adopted that lies beyond the Green Belt. Exclusion of sites beyond the Green Belt, during selection, on the basis that these were undeliverable within the budget of the HIF grant, cannot justify those sites being excluded.

The draft Regulation 18 NECAAP which was 'predicated on the relocation' (page 21) was published in July 2020, but without any feasibility studies for retention or relocation

forming part of its evidence base. The Planning Statement (AW 7.5), para 2.3.13 and 2.3.19, refers to an 'NEC Chronology of Feasibility Investigations' prepared by the LPAs, which is undated (Ref 4). This appeared in the evidence base for NECAAP online in July 2021 in response to enquiries about the absence of the promised feasibility studies made by SHH.

This Chronology does not refer to any proper studies of the feasibility of retaining and improving the works on site which have been undertaken since the commitment was given in the adopted local plans. The Chronology on page 12 refers to some consideration said to have been given to such matters as part of the HIF application preparation. The HIF Business Case, page 29, (in a redacted copy secured under FoI by SHH) also refers to this, but those studies were not included in the Business Case and have never been published. No information has been provided by the Applicant regarding the scope, assumptions, findings or reliability of any such studies.

The Planning Statement also refers to Sustainability Appraisals both for the regulation 19 NECAAP (para 2.3.17) presented to Committees between November 2021 and January 2022 and the GCLP First Proposals (para 2.3.25). Sustainability appraisals are not intended to be primary assessments of the merits of rejected development options, and nothing said in these documents is an independent evidenced appraisal of the feasibility or viability of retaining the works on site.

5.5 Flawed Assessment of the Off-site Relocation Alternatives

SHH will demonstrate that the assessment of the alternative locations for the proposed relocation that was undertaken, is flawed in the following ways:

(i) Failure to comply with Green Belt policy: By not using Green Belt designation in the initial site selection (AW 5.4.3.2; 2.1 & 2.4.7), AW has not complied with the common law or the NPSWW requirement that alternatives are assessed adequately (NPSWW 2012 2.4, 4.8.). AW has submitted no new work on the feasibility of remaining on the current site or of alternative sites since the original site selection process in 2020. The plant is currently in an industrial part of the urban area and moving to open agricultural countryside in Green Belt contravenes policy (CLP 2018; SCLP 2018; NPPF 2021 Ch 13).

(ii) The Applicant claimed that applying Green Belt designation as a constraint at Stage 1 site selection would remove a large proportion of the study area for consideration. The value and importance of each site in Green Belt terms should have been considered. From 99 individual unconstrained areas, 14 potential sites were identified (AW ES 5.2.3; para 2.2.8, table 2.3). The multiple criteria used were given equal weight in selection using crude fixed buffer zones around sensitive receptors. Using 400 m from all dwellings was too restrictive. Those sites with a small number of dwellings within a 200m to 400 m zone should have been included. Plans for suitable mitigation or compensation for a small number of affected residents could have allowed these locations to be taken to the next stage of selection. The sensitivity analysis of the constraints and buffers employed at Stage 1

to identify additional site areas was not included in Stage 2; this would have identified more potential sites, both within and outside the Green Belt.

Weightings applied to the analysis are not transparent. Seven sites were removed from further assessment, including three which were outside the Green Belt. Their rejection was reported as due to risk, which was not defined, but appeared to be financial risk arising from the length of tunnels. The introduction of affordability criterion at Coarse Screening appeared to be the main justification for the elimination of all non-Green Belt sites. Subsequent site selection stages reduced possible sites to three, all to the north of Cambridge, at Milton, Impington, and Honey Hill between Fen Ditton and Horningsea, despite all being in Green Belt.

(iii) Lack of transparency: An unexplained form of weighting of impacts was also introduced at final site selection stage (in the Stage 4 Report AW 5.4.3.5), which prioritised Site 3 selection over Site 2. Site 2 appeared to be discounted because of proposals by Trinity College to develop the area as an extension to Cambridge Science Park. This was rejected and did not appear in the GCLP First Proposals in Autumn 2021. This requires reconsideration of that aspect of the site selection.

As now reported in the ES Chapter 3 (AW 5.2.3), in Sections 3.1 and 3.3, there were also further assessments of alternatives undertaken by the Applicant before the Phase 2 consultation, but not reported or consulted upon. The choice of location within the site, in particular, is of great importance and should have been subject to a rigorous option selection exercise and the results presented as part of consultation with detailed justification.

(iv) Other options for providing for Waterbeach New Town were not fully considered: AW's original proposal was for a new Waterbeach WWTP to replace the existing Waterbeach works to provide for the Waterbeach catchment area, including the New Town. This was discounted following advice from Cambridgeshire County Council and the Environment Agency that the site proposed was in Flood Zone 2 and should not be considered further. AW did not then explore feasible options for a local replacement works, applying suitable flood mitigation measures, but decided to adopt much longer distance pumping solutions, taking effluent from Waterbeach upstream to the CWWTP. This now involves a separate pumping main for Phase 1 of the new town direct to the existing CWWTP, with the two stages of the pipeline included in the PD replacing the existing Waterbeach WWTP and handling all other further development at Waterbeach. Given the distances involved and the capacity required for Waterbeach, a separate local works could have been provided cost effectively and in accordance with the 'proximity principle'.

5.6 Practicality of Consolidating the Works on Site to Allow Development.
It is SHH's position that retention and consolidation of the CWWTP on site with further development on and adjacent to the CWWTP site is feasible and is an alternative that should have been explored by the LPAs and the Applicant.

The existing Cambridge WWTP site is around 40 hectares (AW 7.2 para 18) whereas the land requirement for a new waste water treatment plant with sufficient capacity (AW 7.2 para 28), using similar technology to the existing WWTP, is stated by Anglian Water to be in the region of 22 ha (Initial Options Appraisal 5.4.3.1, para 1.1.6) and this site requirement was used for scheme development. The submitted application, which includes plant for a Phase 2 capacity of at least 50% over the existing, is proposed on an operational footprint of around 22 ha.

The Applicant and the other regional water companies have extensive experience of upgrading and expanding WWTPs on their existing sites. The creation of a consolidated works, which meets the necessary high environmental standards on part of the existing site, which could allow the odour safeguarding area to be reduced or eliminated, is entirely technically feasible. That scheme should be laid out with space for phased future expansion. The existing works is close to the well screened northern boundary of the NECAAP area and any consolidation would allow a significant southern part of the site to be released for other uses.

SHH is aware that there are a number of urban WWTPs on the scale of the Cambridge works that have been retained, redeveloped and extended to meet high environmental standards, compatible with business uses and, crucially, to allow residential uses and development in close proximity to the works. Examples include Riverside (Rainham), Mogden (Isleworth), Beckton, Daveyhulme and Deephams. The Deephams WWTP has housing no more than 50m from the site and the Mogden works is surrounded by residential development.

Consolidation would allow for high quality business and research uses to be developed on land released from the works and on substantial areas of vacant or low quality industrial and storage sites to the south of the works, including the land to the north of Cambridge North station. A large single site can potentially be assembled, which may in total be 50 hectares. There would be scope for substantial amounts of housing, retail, and community facilities, provided that appropriate high environmental standards are designed into the consolidated works. A reliable feasibility study for examining options for retention and consolidation should already have been done prior to the publication of the draft NECAAP.

Quantifying the extent of the development opportunities and confirming their viability needs a proper master planning, design, and development appraisal study. It is very likely, given the high gross development values being achieved for both market housing and high-quality life sciences and other research floorspace in Cambridge, that a consolidation and development scheme, which is sustainable and delivers an appropriate solution in planning terms, will be viable, without substantial or any grant aid. Securing delivery would require proper policy support for the consolidation and redevelopment and may require similar land assembly arrangements to those being proposed for NECAAP.

5.7 Conclusion

The Applicant has not undertaken any feasibility studies of alternative ways for retaining and consolidating the works on site. These are 'reasonable alternatives' which the Applicant should have considered properly during site selection and reported in the Environmental Statement. This is of especial importance given that the submitted application involves relocation of an operationally sound works from within the built-up area onto a Green Belt site.

The Planning Statement, para 2.3.33(b), states that it can 'reasonably be concluded' that 'consolidation [on site] would not release enough land for significant housing and therefore would not secure HIF, and relocation is not viable without external funding, so consolidation is not viable'. Neither part of that statement has been demonstrated either in the application or in published local plan documents to be true, so this is merely an assertion.

6. NPPF and the Development Plan

6.1 Introduction.

A full list of national and local policies with which the PD does not conform or meet the requirements of, are set out in Annex A National and Local Planning Policy Compliance.

6.2 National Planning Policy Framework (NPPF)

The PD does not comply with or meet key policies and principles in the NPPF, in particular those in para 11 (sustainable development), paras 130 to 132 (national design criteria) paras 137 to 150 (harm to Green Belt from inappropriate development) and para 202 (harm to significance of heritage assets).

6.3 The adopted Local Plans 2018 (CLP and SCLP)

There is no substantive requirement, justification, or support, in the adopted or emerging local plans for the PD.

Neither the CLP nor the SCLP contain policies that require or explicitly support relocation of the Cambridge WWWTP, nor do they identify any suitable site for that relocation. The policies for NEC in those plans (SCLP Policy SS/4; Cambridge LP 2018 Policy 15) endorse employment-led development which is compatible with the continued presence of the Cambridge WRC within the area. The feasibility studies promised in those plans (SCLP para 3.34), to examine retaining the works on site against relocation options have never been undertaken and have not been brought forward in the evidence base in support of the emerging NECAAP.

The PD includes development on land in both local plan areas, but in terms of policy compliance it is the SCLP that is of greatest importance. The PD is not compliant with or meets the requirements of numerous policies in that Plan, but in particular: Policies S/2(b) (protection of district character), S/4 (Cambridge Green Belt), HQ/1 (design), NH/2

(protection and enhancement of landscape character), NH/8 (mitigating impacts of development in or adjoining Green Belt) and NH/14 (protection of heritage assets).

6.4 Minerals and Waste Local Plan 2021 (MWLP)
The MWLP contains no specific reference to the relocation of the Cambridge WWTP. Policy 11 offers in principle support to new or extended 'water recycling facilities', where required for operational efficiency or to provide for growth proposals in adopted development plans. The Cambridge relocation into Green Belt does not meet these criteria. The PD does not comply with part (d) of this policy (inadequate mitigation measures for adverse environmental and amenity impacts). It also does not comply with other key policies in the plan including Policy 16 (f) (odour consultation areas), Policy 17 (most aspects of design), Policy 18 (amenity considerations) or Policy 21 (historic assets).

6.5 North East Cambridge Area Action Plan (NECAAP)
The emerging NECAAP is predicated on, but cannot require, the relocation of the CWWTP. NECAAP has only been advanced to a submission draft that will not be subject to public consultation or tested at Examination until after the DCO application has been determined. The planning case for NECAAP is based on a radical proposition for comprehensive development of a high-density housing led neighbourhood, and the sustainability, viability, and deliverability of that have not been tested and it cannot be presumed to be sound.

6.6 Greater Cambridge Local Plan (GCLP)
The GCLP has been proceeding alongside NECAAP. The First Proposals included NEC as proposed in NECAAP as one of six 'strategic' housing and employment locations in that plan, for development up to and beyond 2041. It presumes, but makes no provision for, the relocation of CWWTP and contained no development management policies against which the PD can be tested. The First Proposals were consulted upon in 2021, reported in June 2022. The GCLP preparation is now proceeding in line with the 'strategic directions' set in the Development Strategy Update, January 2023, which presented new, even higher, assessed housing needs and employment forecasts than were used for the First Proposals. The scope of the GCLP including the sites to be brought forward is therefore in flux and under critical review examining the implications of these forecasts, against infrastructure, sustainability, and deliverability considerations.

7. Green Belt

7.1 Relevant National and Local Policies.
The Applicant accepts that the PD is 'inappropriate development' in the Green Belt (Planning Statement, para 4.8.35) and that the relevant Green Belt policy tests to be met if the application is to be approved are those set out in the NPSWW 2012 and more fully in the NPPF (NPPF paras 137 and 138, 147 and 148).

Para 137 of NPPF states that 'The fundamental aim of green belt policy is '….keeping land

permanently open. The essential characteristics of Green Belts are their openness and permanence'. NPSWW at para 4.8.4 states that '…the most important attribute of Green Belts is their openness'.

The NPSWW, para 4.8.18, states in wording essentially the same as para 137 of NPPF: 'Very special circumstances will not exist unless the harm by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the decision maker will attach substantial weight to the harm to the Green Belt when considering any application for such development'.

As noted in Section 6, the adopted local plans, in particular the most relevant South Cambridgeshire Local Plan, contain Green Belt policies, which accord with and build on the NPPF. The principal relevant policies are Policies S/2b and S/4, both protecting the Cambridge Green Belt; Policy NH/2, protecting and enhancing landscape character and Policy NH/8, mitigating impacts of development in the Green Belt.

As a matter of record, the LPAs have always been vigorous and generally successful in safeguarding the Cambridge Green Belt from piecemeal development over many years, particularly the relatively narrow but crucial gaps along the A14 and northern fringes of the Cambridge built up area that separate the 'necklace' villages such as Horningsea, Stow-cum-Quy and Fen Ditton from the City. Any releases of Green Belt through the local plan process have always been the subject of rigorous studies to determine, which are the most appropriate sites to be released. This is in contrast to the process adopted for the PD where the LPAs have essentially abdicated from involvement in selecting any or the least harmful site in the Green Belt, leaving it to the Applicant alone, despite NECAAP being dependent on a successful outcome for this application.

7.2 SHH Position on Green Belt

The SHH position on Green Belt is that the plant itself, the earthworks and ancillary access works, taken together, are all 'inappropriate development' in the Green Belt.
SHH will make further submissions to demonstrate that the PD as a whole will cause 'substantial harm' to the Green Belt. SHH takes the view that this harm should be rated as 'very high harm', not as assessed by the Applicant.

7.3 The Applicant's Green Belt Assessment

The Applicant submitted a Green Belt Assessment (AW 7.5.3), which concludes in para 6.1.6, that the proposal will cause only 'moderate harm' to Green Belt, on completion, and, in the Planning Statement, (4.8.44) that very special circumstances exist that outweigh any harm. SHH disagrees fundamentally with the reasoning and analysis that has been used to reach the overall conclusion of 'moderate harm' to Green Belt.

SHH considers there has been an under-estimation of the adverse impact the PD would

have overall on the Cambridge Green Belt and an overestimation of the reduction in harm the mitigation measures will achieve.

The Applicant has used the methodology and findings of the Greater Cambridge Green Belt Assessment undertaken by Land Use Consultants (LUC) in 2021 for the emerging GCLP, (Ref 5) as a key basis for their assessment, while noting in AW 7.5.3, para 2.2.2, that the LUC methodology 'is not directly applicable to this assessment'.

The Applicant references relevant Green Belt studies, undertaken for the adopted Local Plans in 2002 (Ref 6) and 2015 (Ref 7), but does not draw on these, or the landscape character assessments carried out for the emerging GCLP (Ref 8) to inform their analysis.

The LUC study was designed to work outwards from the urban edge defining and assessing the impacts and harm to Green Belt of potential land parcels for peripheral suburban housing extensions to Cambridge and to villages within the Green Belt. The methodology reflects this purpose and will, if anything, under-estimate the harm caused by an intrusive 'major industrial' plant, which would be free standing, highly visible and surrounded by Green Belt, away from the built-up area. The application site is a particularly important part of the very large 'outer area' of Green Belt (Parcel OA2) that LUC treat as a single area for the purposes of their assessment.

The Applicant should have made a specific assessment of harm to openness and the purposes of Green Belt for the PD, including considering a bespoke set of land parcels defined around the application site, directly related to the spatial extent of the PD and of any likely visual impacts. A baseline and the impacts of the development should then have been examined for each of those parcels individually, and in combination, to provide a proper assessment of harm without mitigation and then taking account of mitigation.

SHH takes the view that the overall conclusion of the LUC 2021 study that any form of urban expansion onto the large land parcel defined as OA2 in the LUC study will cause 'very high' harm to the Green Belt is a useful starting place (AW 7.5.3, para 3.3.11). However, the Applicant appears to have both misinterpreted that conclusion and then worked away from it to reach an incorrect judgement about the extent of harm to Green Belt from the PD.

7.4 Improving the Green Belt Assessment

The Applicant's assessment is not sufficiently rigorous nor is it reported transparently. The assessment should have examined harm by:

(i) undertaking an assessment using separately defined land parcels, individually and together. These principally cover the land between the four villages, with boundaries from the LUC study redrawn appropriately.

(ii) Identifying the impacts of the development at completion assessed in terms of the impacts on openness, taking account of the height and nature of the plant proposed, considered in both spatial and visual impact terms. The 34 ha plant

development itself creates a permanent and irreducible loss of openness of the land it occupies.

(iii) Assessed the value of each land parcel in terms of the 3 purposes of the Cambridge Green Belt and the harm that the development would cause to those purposes.

(iv) Once that had been done, the extent of any reduction in impacts and harm, principally visual, as a result of the mitigation measures, where these can be reasonably assumed to be in place after 15 years, can then be considered.

SHH has not and should not have to undertake such an exercise. The Applicant should be asked to present a rigorous, transparent revised assessment.

7.5 Likely Harm resulting from Loss of Openness from Development

The application site and all the adjoining Green Belt areas between the villages of Fen Ditton, Milton, Horningsea and Stow-cum-Quy form the relevant area of Green Belt for this assessment. It is divided by the A14 and does contain overhead high voltage power lines that traverse the northern area.

The character of the Green Belt from the A14 northwards is one mainly of an open flat chalkland agricultural landscape, of large fields, with only very slight variations in levels. The River Cam Corridor and Quy Fen each have slightly different characters, but are still essentially open. The only buildings are small clusters of houses at Bait's Bite Lock and at Biggin Abbey, and one or two isolated farm cottages. There are only a few field hedges, trees and woodland in the core part of the area. The Green Belt between Fen Ditton and the A14 consists of large open arable fields, with hedges along more of the field boundaries and along the A14.

The application site and surrounding areas of Green Belt are very flat, continuous open land characterised by long open views. Any harm from the PD will extend across the whole of the visual envelope around the plant. Given the design of the earthworks and landscape planting, the permanent visual intrusion from the plant will actually be greatest in relation to middle distance views along Horningsea Road and High Ditch Road which are important visual approaches to the city, including Fen Ditton.

An assessment of the impacts on Green Belt 'openness' should be focussed on the permanent impacts of the above ground works, although there will be temporary loss of 'openness' across a much wider area of Green Belt within Order Limits during construction.

The impacts on openness of the permanent works are best considered in terms of defined spatial zones which reflect locations where there are likely to be similar impacts. This allows both the spatial and visual components of openness to be considered. In simple terms, these impact zones, and the key elements of the impacts of the PD on openness, fall into four zones:

(i) Build Development Zone: This comprises the plant, earthworks, and ancillary works such as the access roads and parking, all of which are inappropriate development. The Applicant presents this as some 34ha in extent. In this zone, the loss of openness from a high and tightly packed development is complete and will not reduce over time.

(ii) Inner Impact Zone: This can be taken broadly as the landscape, ecological and recreational area around the plant within Order Limits. This and the Built Development Zone are described by the Applicant as the WWTP Parcel. There will be intentional physical change to the landscape of this zone as part of the PD as a result mainly of planting and small-scale works, which are not, of themselves, inappropriate development. This area is c60ha in extent and corresponds to the land that will remain under long term management by the Applicant. The whole of this area will be dominated visually by the works on completion. It will mainly be within the predicted odour zone and there will also be plant noise, light and other impacts. There will be substantial permanent impacts on visual openness, which will only diminish slowly over time where screened by the peripheral tree and hedge planting. Those impacts need to be considered under winter conditions and at night.

(iii) Middle Impact Zone: This comprises the remainder of a broadly circular zone which is up to around 400m from the outer edge of the plant and therefore around 700m from the centroid. This is predominantly open arable land, but includes a part of the A14 corridor. This is zone around 100 ha in extent. The plant will be visually significant across this area, by virtue of both its height and lateral. Scale. There will be permanent impacts on visual openness. These will reduce as the intervening planting matures, although the plant will remain visible to some extent and from particular viewpoints, notably in the winter and at night.

(iv) Outer Impact Zone: This is a wider Green Belt zone from which the plant will be visible, extending from the Middle Impact Zone outwards generally to the village edges. This can, in broad terms, be described as a zone up to around 1300m from the centroid of the plant and covers all of the Green Belt between the edges of Fen Ditton and Horningsea; to the River Cam and the railway to the west and part way to Stow-cum-Quy. It includes further sections of the A14 corridor. This could be further divided into sub-zones for analysis, but is in total around 300 ha of Green Belt. There will be some permanent impact on visual openness across the majority of this area, although less than in the Middle Impact Zone. It will to some extent be reduced as planting matures although the taller parts of the plant will remain visible above the trees, particularly in the winter.

Assessed in this way, it can be concluded that, in the Built Development Zone, there will be a complete spatial and visual loss of openness across a 34ha area, which will be permanent. Across the other zones, there will significant, and in places substantial,

permanent loss of visual openness, covering up to 400ha of Green Belt, beyond the Built Development Zone.

7.6 Likely Harm to Green Belt Purposes from Development

The potential for harm from urban development to the purposes of the Cambridge Green Belt, as assessed in the LUC study, is summarised in section 3.2 of AW 7.5.3. This includes an analysis of the contribution of the wider parcel OA2 which includes the application site to the three purposes of the Cambridge Green Belt, with a conclusion set out in para 3.3.11. These purposes are as adopted in the local plans as an interpretation of the five purposes set out in the NPPF.

The contributions made by parcel OA2 generally to the purposes of Green Belt were assessed by LUC as:
Purpose 1: Preserve the unique character of Cambridge as a compact, dynamic, city with a thriving historic centre – limited or no contribution;
Purpose 2: Maintain and enhance the quality of its setting - moderate contribution
Purpose 3: Prevent communities in the environs of Cambridge from merging into one another and with the city – moderate contribution.

Contributions to all three purposes made by the land parcels between Fen Ditton and the A14 are all rated as 'significant' or 'relatively significant', leading to a conclusion of 'very high' harm from urban development.

Harm from the release of land in OA2 for urban development is also judged by LUC to be 'very high', but the conclusion reported in para 3.3.11 is ambiguously drafted. SHH disagrees with the Applicant's interpretation of that conclusion.

The entirety of the Green Belt forming the Horningsea – Fen Ditton gap to the north of the A14 is of great importance in maintaining and enhancing the quality of the rural landscape setting of the city and in preventing communities from merging with one another. The importance and special character of these open landscapes in maintaining the rural setting of the city is stressed in earlier Green Belt studies, notably the 2002 Study.

On that basis, the Built Development and Impact Zones to the north of the A14 all make contributions that are 'significant' in relation to Purpose 2 and at least 'relatively significant' to Purpose 3. Contributions to all three purposes made by the land parcels in the Impact Zones between Fen Ditton and the A14 can all be rated as 'significant' or 'relatively significant', in line with the LUC judgements.

Taken overall, considering the industrial form of the development and the sustained impacts on openness, harm to the Green Belt from the PD should be judged to be 'very high'.

7.7 Overall Green Belt Harm

SHH takes the view that the overall harm caused to an important part of the Cambridge Green Belt will be ‘substantial’ and should be rated as ‘very high’. This will be the case during construction and persist following completion. The harm caused by the plant development itself (i.e., the Built Development Zone) is permanent and irreducible. Outside the Built Development Zone, maturing mitigation planting measures may reduce the impacts on openness, but only to a very limited extent, across the wider visual envelope. Overall, this means that the harm to Green Belt will remain 'very high’. This analysis is consistent with SHH’s interpretation and response to the ES landscape and visual amenity assessment, set out in Section 10.

Further representations and evidence in support of these SHH views will be presented, if necessary, but the overall conclusion is that the harm to the Cambridge Green Belt from the PD must be judged as ‘very high’ from the outset and that this rating does not reduce over time for much of the land within the visual envelope all of which is Green Belt.

8. Design, Engineering and Landscape

8.1 Introduction

SHH has taken part in all phases of consultation on the emerging scheme, including the overall design approaches, siting and layout, engineering, and landscape proposals. We note that some of our concerns have been taken into account in refining the scheme design from that subject to the Phase 3 Statutory Consultation and earlier design concepts, to that now submitted.

SHH’s position is that the Applicant did not undertake an appropriately rigorous or balanced approach to selecting the basic form, siting, layout, or heights of the plant during the initial stages of design development, once this broadly defined site had been selected. The alternatives considered, the option analysis and design development has never been made available for proper scrutiny, nor has any of the advice that the Applicant apparently sought from the Design Council or other advisers. Section 5 sets out our concerns about the adequacy of the selection of alternatives and lack of explanation in the Environmental Statement.

SHH will make representations that the submitted design and layout, employing a rigid circular footprint, with closely packed plant, encircled by an earth bank, is seriously flawed. It has not sought to reflect or enhance the essential character of the landscape, topography, setting or environmental constraints in this exposed Green Belt location, close to key villages. An original 22ha operational requirement has had to be translated into a 94ha core scheme, with complex planting, ecological and recreational mitigation, which still causes substantial adverse environmental impacts and harm. Some of these could have been reduced by changes to the land take, siting, design engineering and/or mitigation.

8.2 Plant Capacity, Design Life and Sizing

The Applicant has not provided sufficient quantitative information in the application on the planned capacity of the plant the consent for which is being sought as part the DCO. The Phase 1 and Phase 2 capacities have been quoted as 275,000 and 300,000 Population Equivalent (PE), for several years, without supporting evidence. A sludge treatment centre for 16,000 tonnes dry solids. In the ES, these figures are set out in para 2.15.2. Phase 2 is stated as being required 'sometime between 2036 and 2050. In the Planning Statement, para 2.2.13, it is suggested that this may be needed as 'early as 2035'.

At the same time, in paras 2.2.3 to 5 of the PS, it is claimed that the works has been designed to accommodate the housing needs to be met in the emerging Greater Cambridge Local Plan. It is not clear whether this statement refers to the capacity to be provided in Phase 1 or Phase 2 of the application, nor whether the whole of the housing proposed in the First Proposals GCLP has been taken into account or only that anticipated by 2041. The most recent GCLP Development Strategy Update, January 2023, is in any case exploring the need to accommodate housing and employment needs by 2041 substantially above those in the First Proposals.

No information is presented about the capacity or throughput of the existing works at present or at the baseline date for forecasting need. The published capacity of the existing works in 2016 was officially stated to be 200,000 PE, with the highest recent annual influent flow (Ref 9), in 2022, reported as 194,000 PE. From published data, it is known that the actual dry weather flows being treated are substantially above the permitted flow, as set out in the latest Discharge Permit.

SHH concludes from all of this that a DCO for a major new WWTP is being sought with the clear expectation that further extensions to treatment capacity above that included in the DCO may be needed as early as the late 2030s, less than 10 years after opening. This suggests that the application should have been made at the outset for a substantially larger plant than 300,000 PE. No information is provided as to continuing increase in capacity of the Sludge Treatment Centre (STC) that will undoubtedly be required. In the Design and Access Statement reference is made to a larger 25,000 tonnes capacity for an expanded STC, but since this appears not to be in the Phase 2 design, this is not part of the works being applied for. No quantified forecasts or projections have been given for the additional treatment capacity needed to meet the housing and employment development requirements of Cambridge for the period after Phase 2 is at capacity. Likewise, no quantified design capacities or assessments are provided which would take account of any other likely changes in influent or effluent treatment requirements, arising, for example from climate change, more stringent discharge standards or other reasonably foreseeable factors.

The Planning Statement and the ES Chapter 1, both in para 1.3.3, make assertions about the 'design life' of the works as being 'to at least 2090' and 'within the earth bank, space

to the early 2100s', but with no supporting analysis for those statements.

SHH is concerned that, given very constrained footprint for the circular plant being applied for, with only a small area noted on the Works Plans as being kept aside for post Phase 2 expansion, that this space will be inadequate and, given that the treatment process is sequential, there may not be appropriate space in each stage of the plant to deliver the necessary plant. Any expansion of the plant outside the circular earth bank would be clearly unacceptable and would destroy the carefully conceived and implemented landscape around the plant.

The Applicant must be asked to provide a full response and supporting evidence to address these concerns. If this DCO is to be granted, it must be for a plant that will be fit for purpose to at least the early 2100s, as promised.

8.3 Landscape Character and Features

SHH will make further representations that establish that key aspects of the landscape character and setting have not been adequately addressed by the submitted design. The South Cambridgeshire District Design Guide, referring to the chalklands on which the site is located, describes them as typically a 'gently undulating chalk plateau' comprising 'a mostly large-scale landscape of arable fields, low hedges, few trees.'.

In the area between Horningsea, Stow-cum-Quy and Fen Ditton, the subdivisions, which are linear and at a variety of angles, generally coincide with field boundaries, border tracks or, in a special instance here, flank the disused railway line. They comprise tree belts, scrub and hedgerows, occasional copses, and reed fringed ditches. They are never dense, and the openness of the landscape dominates as one subdivision can be seen beyond another giving a layered effect. This openness provides long views particularly towards higher ground to the south and south-east and towards Anglesey Abbey to the north-east. There are long views from many directions both into and across the site. All of these constraints should have been properly addressed in a revised design and landscaping scheme.

8.4 The Approach to Design of Structures and Landscaping

SHH takes issue with many aspects of the design as it has evolved and is currently proposed, taking account of the justifications provided in the Design and Access Statement (AW 7.6) and will present a full design critique based on these in further representations:

a) The selection processes of site, road access and basic design solution have been insufficiently transparent and shared.
b) Local communities' preferences, as regards location, concealment, odour containment, and road access received little attention. For instance, a proposal which would have made the A14 safer, whilst providing access to and from the site for construction and operational traffic, was not pursued sufficiently.

c) The size of the plant and the amount of traffic it generates in operation, should have been reduced as much as possible by excluding the importation and processing of sludge, which would to an extent have reduced the impact on the Green Belt.

d) Rigorous testing of possible design solutions using a comprehensive set of performance criteria does not appear to have occurred.

e) An early decision creating a superimposed formal solution which fails to meet what should be the design criteria has eventually resulted in measures which appear to be trying to mitigate that solution. The 'hill-fort' or 'rotunda' form is alien to this countryside, too intrusive and providing insufficient concealment. Its reliance on tree growth to screen views of the plant is too protracted. The earthwork, and the facility it contains, appear to have been thought of as separate entities and the design should have been approached holistically.

f) While some effort has been made to reduce the effective height of tall plant this has been insufficient. The explanation for the placing of the tallest plant relies on a simplistic placing of these equidistant from Fen Ditton and Horningsea villages, rather than a proper assessment of visual impacts.

g) Apart for the Discovery building, there is limited illustration, except in the outline sectional and elevational drawings and amorphous photomontages, of the form the plant's structures will take or if the design objectives that should be, are being achieved.

h) Given the prestigious nature of the city, the Applicant's conception of the project as of national significance, the sensitivity of the site and the complexity of the design problem, a design team with a track record in delivering top class engineering, architectural and landscape solutions should have been appointed. The Applicant apparently took advice from a Design Council panel and other experts, none of which has been made public.

i) The nature of the landscape surrounding the site and the properties of the immediate topography do not appear to have been fully appreciated or taken account of in the design.

j) The design does not work <u>with</u> the landscape nor respect sufficiently the heritage assets that will be affected. The landscape scheme has sought to meet numerous competing requirements, including screening, biodiversity, and recreational access, with only partial success. The result is out of keeping with the irregularly and thinly divided openness of the host landscape, with long views. It is an extraordinarily congested and over complex scheme. Elements of it, including the planting on the earth bank are far too formal and unnatural in conception. Too little thought has been given to how it can be effectively brought to maturity and managed including the recreational use which it will attract.

k) The importance of the conservation areas of Fen Ditton, Horningsea and Baits Bite along, with the grade II* listed Biggin Abbey and other heritage assets, warrant a design solution in which these heritage assets stay outside any possible visual association with the new plant.

l) Plant lighting should be designed to minimise any light spill upwards or outside the containing bank in this open countryside location.

8.5 Detailed Design Concerns

SHH will make specific representations about the details of the submitted design, including:

(i) The need to lower the finished base level of the plant further and to reduce the designed heights of the taller structures.

(ii) The need to provide a higher single circular earth bank that will be above 5m above external existing ground levels and make this subject to binding design parameters in the DCO. The segmented 'catherine wheel' design is a wasteful use of available excavated material, with no advantages in terms of delivering effective screening of views. The enclosing earth bank needs to appear as natural as possible, with shallow feathered external slopes that can be planted to maximum early effect.

(iii) Planting on the earth bank needs to be rethought avoiding reliance just on an extremely narrow hedge with trees on the summit of the bank.

(iv) The nature of the woodland, tree and hedge planting proposed, which now intends too much use of standard and semi-mature tree stock.

(v) Reiterating concerns evidenced in responses to the Phase 3 consultation, relating to the high risks of failure and slow tree growth on this site. We note that the Applicant has taken some notice of these in the LVA assessment, but will explore further whether additional design changes or management measures are needed.

(vi) The need for more advance planting of trees and hedges, in particular, making those tree and hedge belts wider.

(vii) The need for additional off-site landscape planting to screen the plant in views from Horningsea Road and High Ditch Road. An additional public footpath and cycleway needs to be provided along High Ditch Road. Both of these points are set out in Section 13.

(viii) Given the likely attractiveness of the land around the plant for informal recreational use, the very limited extent of visitor parking on site needs to be justified. If inadequate parking is provided, unwanted roadside parking or incursions into the landscaped areas will occur.

8.6 DCO Design Requirements

SHH has noted the Design Objectives now set out in the Design and Access Statement (AW 7.6) Section 11.2. These extend the initial design objectives apparently followed in scheme development. SHH questions whether appropriate design objectives were adopted or have been met in the scheme design. Given the intention that this longer set of objectives is to be the basis for the DCO Requirement that detailed design 'must accord with these design objectives', SHH believes that these are not sufficiently clear and precise to ensure that the LPAs have sufficiently authoritative guidance and support to ensure that a high-quality design is approved, in due course, if the DCO is granted. The Requirement needs to be tied to improved specific benchmark designs, to be considered and included as part of any approval of the DCO.

8.7 National and Local Design Policy Compliance

The Applicant claims, in AW 7.6 at paras 11.2.5 and 11.2.6, that the submitted scheme meets the design policy requirements set out in the NPSWW (in section 3.5 and paragraphs 4.5.14, 4.8.19, 4.9.8 and 4.9.12) and in the NPPF (at paras 126 and 130). SHH will make representations that the scheme does not comply sufficiently with those policies, nor with the relevant Green Belt and other policies in the NPPF.

The submitted scheme does not meet the design, countryside, or Green Belt policy requirements in the adopted SCLP, CLP or the MWLP.

9. Carbon

9.1 Introduction

'The greenest building is the one that already exists.' (Ref 10).

The Climate Change Act 2008 requires 80% reduction in greenhouse gas emissions and the commitment of the UK to net zero by 2050. This is unlikely to be achieved if functioning plants, such as the CWWTP, are demolished and replaced with new. Instead of relocation, consolidation and upgrading current site should have been assessed (see Section 5).

9.2 Carbon Net Zero.

AW's two corporate objectives, operational net zero by 2030 and reducing carbon used in building and maintaining assets by 70% from a 2010 baseline (AW 5.1 para 4.4.1) do not take account of the carbon emissions associated with demolition of the existing works. Given the new build nature of the project, these targets are unambitious especially as AW is only 'striving' to meet the 70% reduction target (AW ES 5.2.10; 2.9.1). The PD should seek to substantially exceed the targets to help drive down Anglian Water's overall corporate carbon footprint.

Embodied carbon is the carbon dioxide (CO_2) emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure. (Ref 11)

Cement production creates ~7% of the world's CO_2 emissions and is the largest contributor to embodied carbon in the built environment (Ref 12); this is applicable to the cement used at the current site and that proposed for use at the PD.

While Table S1 of the Carbon Assessment Waste Water Transfer Infrastructure sets out the emissions of two transfer options for returning treated affluent and stormwater to the River Cam there is no comparison with the 'do nothing' option, i.e. retention of the plant at the current site.

SHH will challenge the calculations in the comparison of counterfactual option with proposed option described in the Strategic Whole Life Carbon Assessment (PS 7.5.2 p12).

The carbon expenditure assumptions for retention at current site with a suburban housing development are estimates only; no such location has been identified, so commuting, construction vehicle movements and housing structure emissions cannot be calculated. No allowance has been included for demolition in the PD calculations.

9.3 Demolition of the Existing Plant.

SHH challenges the calculations of potential whole life carbon emissions to 2080 (AW 5.2.10 Table 4-8) given they do not include demolition. Around 10% of the embodied CO_2e in buildings is released during demolition and transportation, processing, and disposal of construction waste. SHH takes the view that this and any ground remediation of the existing site should have been included in the scope of the ES. Any developer has a reasonable expectation that it does not need to account for this carbon in any part of the consenting for their project.

SHH believes that demolition of the key components described in Section 6 of the Outline Decommissioning Plan is likely to emit a high level of GHG and should be included in the whole-life calculations (AW 5.4.4.3; para 6.2). The decommissioning plan indicates CO_2e of 10 tonnes (AW 5.4.10 Appendix 10.1) but there is insufficient detail to calculate carbon emissions associated with demolition of the key structures, such as the terminal pumping station, pipelines, primary settlement tanks and final settlement tanks. The British Standards Institution sets out a code of practice for full and partial demolition. The Applicant does not appear to have recognised this (Ref 13).

9.3 Waterbeach Pipeline.

The intention is to build a section of the pipeline from the CWWTP relocation site to the existing works under the River Cam and railway, which will be redundant after a very short time. This certainly involves unnecessary and avoidable carbon emissions. The Applicant has not presented a comparison of the carbon footprint of the submitted scheme against an alternative local works to serve Waterbeach and the new town. The Applicant also needs to confirm if Waterbeach effluent pumping has been included in the operational energy demand calculations.

9.4 Renewable energy

The Project Description describes two options for using the biogas generated at the STC. Anglian Water should provide data to support the assessment claimed in AW 5.2.10-Carbon para 4.4.7 that the preferred Gas to Grid option will result in the calculated overall net emissions of -3,490 tCO2e/year, a reduction of 4680 tCO2e/year against the 2010 baseline solution. It is not clear that the existing gas grid system is capable of using the biogas generated although Project Description, para 2.4.23 states propane injection would be required.

9.5 Conclusion

The Applicant's carbon assessments are inadequate in that these fail to include integral parts of the scheme, in particular, the demolition of the existing works. The assessment

should have considered the realistic alternative of retaining and improving the existing works in situ, thereby identifying and quantifying the substantial unnecessary and 'avoidable' carbon emissions arising from the construction and demolition involved in the replacement of the existing facilities. The existing works could be made operationally net zero or close to that.

10. Environmental Effects, Mitigation and Harm

10.1 Adequacy of the Environmental Statement

SHH has examined as far as possible in the time available the Environmental Statement submitted. In our view, as set out in Section 5, the ES fails to meet the requirements in Schedule 4(2) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 in that it fails to set out an adequate assessment of the 'reasonable alternatives', namely the options for retention on the existing site. Any assessment should have included 'a comparison of the environmental effects' of that option against other options, including the 'main reasons' why it was not selected. The ES is also deficient in that it did not consider the demolition, remediation, and disposal of materials from the existing Cambridge WWTP site as an integral part of the project for EIA purposes.

10.2 Significant Environmental Effects and Mitigation

SHH considers that there are sections of the ES where residual significant effects have not been correctly identified taking account of the mitigation that has been assumed. Issues relating to the Green Belt, the proposed design, including the sizing and capacity, landscaping, and the carbon footprint have been addressed in sections 7 to 9. A review of other key environmental topics is included as Sections 10.3 to 10.8. Further material may be included in later submissions, including requests for improved mitigation, monitoring and management provisions if the DCO were to be granted.

10.3 Community: Recreational Use of the Site and Public 'Rights of Way'

The PD will create a large area of green space to which public recreational access will be permitted. Given the proximity to Cambridge and nearby villages and the demand that exists for countryside access, the Applicant must make provision for the on-site parking of recreational visitors' vehicles, in order to mitigate the adverse effects of unwanted roadside and verge parking both on Horningsea Road or Low Fen Drove Way. There is also no provision in the Order to address the continued existence of and management of Low Fen Drove Way (LFDW), which is a narrow, unmade highway, but also an important part of the footpath and bridleway network. At its western end it is adjacent to the relocated works and to the land which will attract recreational visitors. These measures are needed to avoid or reduce inessential public vehicular use of LFDW, trespass and associated problems.

As part of the overall package of measures proposed to deliver improved access and management of the public path network, including the paths being created by the PD, a mitigation provision of a new cycleway and pedestrian path along a short stretch of High

Ditch Road joining public paths from the Marleigh development and the Park and Ride site with LFDW (integrated with additional planting) should be made. SHH made this proposal and that relating to LFDW during the Phase 3 Consultation and will make further submissions on these points.

10.4 Historic Environment

Introduction

SHH has reviewed the Environmental Statement Historic Environment assessment (AW 5.2.13 and supporting documents). The assessment reports significant effects and also seeks to assess the extent to which there will be 'harm' to heritage.

Significant Effects

The HE assessment, (AW 5.2.13) para 4.2.36, identifies a residual permanent 'large adverse significant effect' arising from the necessary removal of archaeological remains. This cannot be mitigated further than the provisions of the AIMS. SHH agree with this assessment.

The PD will give rise to predominantly indirect impacts on other designated historical assets, mainly affecting the settings particularly of Biggin Abbey (Grade II*) and Poplar Hall (Grade II) and the settings and approaches to the Fen Ditton, Bait's Bite Lock and Horningsea Conservation Areas, which include some 49 listed buildings.

In reviewing the assessment, SHH has applied the guidance from English Heritage, in responding to the CWWTPR EIA Scoping Report that 'an assessment of setting should not be limited by visual receptors, i.e. visibility of site but also how the assets are approached or traversed, the spatial, historical and functional relationship of assets to one another and the wider historic landscape, as well as the impact...' The HE assessment has not paid sufficient attention to the value and importance of the approaches to the conservation areas as integral parts of their settings, in particular High Ditch Road approaching Fen Ditton, and Horningsea Road, north of the A14, in the case of Horningsea. The Landscape and Visual Assessment under-estimates the permanent landscape and visual effects also in these locations.

The findings of the assessment are not always consistently set out through the chapter. In paras 4.2.17 and 18, the temporary potential effects during construction are reported as moderate adverse significant for Biggin Abbey, Poplar Hall and the Fen Ditton and Bait's Bite Lock CAs. Residual effects, after applying the code of Construction Practice, are noted as reduced to slight adverse for the Conservation Areas, but are still moderate adverse significant on the two listed buildings. SHH takes the view that the residual effects on the CAs should remain recorded as moderate adverse.

Biggin Abbey, para 4.2.6, is of 'high heritage value' and its mainly open agricultural setting is of historical relevance and this overall makes a 'positive contribution to the heritage value'. The assessment of the permanent impacts of a major industrial plant and its

associated highway and lighting works on the setting are set out at para 4.2.56. The residual effects are reported as permanent moderate adverse significant. Again, this assessment is flawed as it derives in part from an under-estimate in the LVA of the permanent visual effects of the PD as viewed from Biggin Abbey and as seen and experienced from within its open agricultural setting. The permanent residual effects on the Bait's Bite Lock and Horningsea CAs are reported as slight adverse. In our view, the impact and residual effects on the Fen Ditton CA, arising from the persistent visual effects within the approaches to the Conservation Area, are also slight adverse.

Harm to heritage

The assessment of harm in Section 5.6 of AW 5.2.13 is rather peculiar in that it seeks to assess harm to the designated assets grouped or averaged together, adopting an entirely opaque methodology. In our view, the rating of harm should focus on the asset or assets most likely to harmed and the extent of that harm. In this case, the effects on the setting of Biggin Abbey may be just 'less than substantial', but certainly are at the higher end of that range. Each of the other assets affected should be addressed separately in the same way.

10.5 Landscape and Visual Amenity

Introduction

SHH has reviewed the Environmental Statement Landscape and Visual Amenity assessment (AW 5.2.15, AW 5.3.15, AW 5.4.15.1 Photomontages and AW 5.4.8.14 Landscape Ecology and Recreational Management Plan LERMP). This has been informed by detailed local and professional knowledge of the local landscape and views and of landscape design, planting and management.

Concerns and evidence have previously been expressed in the SHH Phase 3 Consultation Response about both (i) the impact of the PD including the landscape proposals on the distinctive character of the very open local landscape and (ii) the extent to which the proposed landscape planting will screen views successfully, given the dependence on planting on top of a narrow circular earthwork and the generally poor rate of tree growth that has occurred where planting has taken place on similar chalkland locations close to the site. SHH remain concerned about the design of the circular earthwork, the height of which must be no less than 5m AGL and have exactly defined parameters in the draft DCO. SHH has concerns that there are still inadequate provisions in the LERMP to ensure that the tree and hedge planting grows sufficiently rapidly and is maintained successfully.

The LVA has acknowledged these concerns, to some degree, in the assumptions set out on Table 2-6 on page 39 (AW 5.2.15), where tree heights at Year 15 are now assumed to be no more than 7.5m, with the added caveat that 'seasonal drought…may result in poor establishment and lower growth rates'. It is also noted that there is no impact assessment for any period after Year 15 and no attempt is made to argue that, in the longer term, the 'maximum impacts on landscape and visual amenity' recorded at Year 15, will be reduced. In SHH's view, illustrative sections in the LERMP (AW 5.4.8.14 Figure 3.5, for example) are

misleading in both showing greater heights of trees on the top of the earthwork, but also an unlikely density of screening from what is effectively a single hedge and tree line.

The LVA refers to photomontages to illustrate screening effects of the landscape proposals and planting scheme and typically refers to the buildings being less prominent at Year 15 with partially filtered views. Photomontages are not reliable as direct illustrations of views: a wide-angle landscape view always appears more distant and buildings less prominent than to the naked eye, addressed to an extent in the narrower views presented.

Effects on Landscape Character

The conclusions from the Landscape and Visual Amenity assessment (LVA) are that, during construction, there will be a large adverse (significant) effect on the character of the principal Eastern Fen Edge LCA. During operation, at Year 1, the effects are reported as moderate adverse (significant), which is maintained at Year 15, even with the benefit of mitigation planting. (AW 5.2.15 Table 4-1 and 4-5)

The LVA correctly notes that the higher structures of the plant, seen together, will remain exposed and apparent in the landscape from most directions. The impact of the large-scale industrial infrastructure in the predominantly rural landscape is captured in the assessment of permanent impact on the LCA, including exposed structures above mitigation planting. The upper parts of the digester towers and other tall structures including the biogas holder, boiler building, boiler stack and workshops are identified as remaining apparent, especially in the landscape to the south.

The LVA only chose to use the large Eastern Fen Edge LCA, as defined in the 2021 Chris Blandford Associates LCA study (Ref 7). The 2015 Inner Green Belt Study (Ref 8) defined a similar Fenland Chalk Edge LCA, but then sub-divided this into three distinctly different smaller areas; the site and adjoining Green Belt lie within the Fen Ditton Fen Edge Chalklands LCA. This area, between Fen Ditton and Horningsea, has almost no woodland belts or copses. It is misleading that the LVA, (AW 5.2.15) notes there are 'similar woodland belts in the LCA and adjacent LCA, Waterbeach-Lode'. These are references mainly to the plantings around Anglesey Abbey and around Quy Hall and to denser tree and woodland cover to the north of Horningsea and along the river, towards Clayhithe and Waterbeach.

The LVA does acknowledge that the woodland belts designed to screen the plant will substantially change the character of the area between Fen Ditton and Horningsea, 'making it wooded and less open', but appears to under-play the importance of this marked change to landscape character.

In SHH's submission, the impact of the PD on landscape character should be considered large adverse (significant) at Year 1 and will remain at least moderate adverse (significant) at Year 15 and thereafter, as a permanent effect.

Effects on Visual Amenity
The assessment of visual effects during construction set out in AW 5.2.15 is reasonable.

SHH consider there has been, generally, an under-estimation of the permanent adverse effects that the PD will have on the visual amenity of a significant number of receptors within 1km of the main site as assessed at Year 15. This arises mainly from an over-optimistic assessment of the screening effect that the landscape planting will achieve by Year 15. Such an assessment should, in any case, have been focussed on the winter views and take proper account of the extent to which the deciduous tree screening can reasonably be assumed to have matured. It would have been helpful if the submission had included additional photomontages for viewpoints in Fen Ditton (RVs 7 and 11) and that the photomontage at RV 10 (PM 1) should have been properly based on the ground level of adjacent houses on the north side of High Ditch Road, rather than at road level.

SHH will provide further evidence that from viewpoints where large adverse (significant) effects are noted at Year 1 (RVs 17, 18 and 25), that at 18 in particular will not have diminished to moderate adverse by Year 15. In the case of impacts recorded as moderate adverse (significant) at Year 1, these will generally not have reduced to slight adverse by Year 15. This applies to viewpoints RV 10 and RV 11, that represent housing on the north side of High Ditch Road in Fen Ditton and the north end of the village on Horningsea Road; the views from Biggin Abbey, RV24; and from RVs 13, 23, 24 and 26. These should all be recorded as moderate adverse (significant) at Year 15. These are long term and permanent effects. Impacts on viewpoints further east along High Ditch Road and Low Fen Drove Way bridge for residents, pedestrians, and road users (RVs 7 and 9) have been under-estimated at Year 1, and probably at Year 15, and should be recorded as moderate adverse (significant).

Conclusion
In selecting the application site and in scheme development, the Applicant acknowledges the open landscape nature of this site and the significant adverse landscape and visual impacts that any scheme would have. See, for example, the AW Stage 4 Final Site Selection Report Appendix B at B.2.49 and B.2.51.

SHH does agree with the ES LVA conclusion that there will be moderate adverse significant permanent impacts on landscape character. The impacts on visual amenity, where these are reported as large adverse or moderate adverse at Year 1 in the LVA, will not in our view diminish to slight adverse in most locations at Year 15. These effects at Year 15 are being accepted by the Applicant as being long term and, in effect, permanent. There are several locations where additional off-site planting should be provided, as set out in Section 13.3, which will help reduce adverse visual effects, noting that these will make further changes to a wide open landscape.

10.6 Odour

Odour from the Existing Plant

Odour is often a major concern for residents (Ref 14) and the existing works creates unpleasant odours, from time to time, at locations outside the modelled zone of detection shown in Greater Cambridge Partnership and Anglian Water's Modelled Odour Exposure Contours around existing Works (Ref 15). This gives only limited confidence that the model correctly predicts nuisance levels of odour.

Additional control at the existing works would be based on known conditions, reduce impacts on those currently affected and permit more effective use of land in the buffer zone than at present. This alternative should be considered.

Odour Impacts from PD

The commissioning phase of a new works poses particular odour risks (Ref 16).

Affected Receptors

The proposed relocation will transfer odour impacts to hitherto unaffected receptors.

SHH questions the accuracy of modelling which has not identified areas where intermittent nuisance will be introduced, e.g., southern edge of Horningsea village and the housing and school on Horningsea Road, Fen Ditton.

Visitors' sense of odour at a site visit July 2022 were compared with AW's portable H_2S gas detection meter. The extra odour due to discharge of sewage (not sludge) tankers and the uncovered primary tanks was notable. There was no odour noticed at around 50m from the sludge processing plant, closer inspection of this element of the works was not possible due to hazard restrictions. No reports have been identified about the potential to reduce odour pollution from the existing works. The proposed relocation will transfer odour impacts to hitherto unaffected receptors.

Anglian Water aims to achieve a 'negligible' effect on all known receptors beyond 600m. The threshold for 'Negligible' effect follows the Institute of Air Quality Management (IAQM) value for odour units but is defined as 98% compliance under normal operations. This therefore allows exceedances for 7 days/year and would not cover infrequent, foreseeable events such as rare storms or low frequency operation and maintenance activities such as internal structure inspections or even problems due to emergency/out of design conditions. Anglian Water should be directed to assess the impact of potential exceedances and commit to preventing odour nuisance at residences.

The effects of rising temperatures and lower rainfall due to climate change on odour generation have not been addressed. There is little information about the conditions over which the primary mitigation is expected to be sufficient; the proposed secondary mitigation relies on odour nuisance occurring before it will be upgraded.

AW's proposed approach is to control the source term at the works through process design and odour management. Supporting material (Ref 17) to the Technical Interpretation of the Odour Assessment Report suggests the main sources contributing odour at the existing works are the inlet works (18%), primary settlement tanks (10%), secondary treatment activated sludge plant – anoxic zones (18.8%) and raw sludge gravity belt thickener vent (26.1%). This assessment took into account Odournet's 2017 measurement survey. Storm tanks and the storm lagoon were given a low contribution factor, partly due to their infrequent use.

Anglian Water's assessment of Climate Change, ES Chapter 9, refers to a 2019 survey as being in a year of above average temperatures and for which odour data is available and was used in the odour model. Para 4.3.69 states that 'Chapter 18: Odour notes that climate change is not expected to alter future baseline odour emissions'. This phrase is used in para 2.2.23 of Chapter 18 and obviously contradicts its preceding para 2.2.18 where adverse changes due to higher temperatures and lower rainfall are discussed. Maximum temperatures in Cambridge of 38.7 deg. C on 25 July 2019 and 39.9 deg. C on 20 July 2022 were reported. Table 2.7 gives the maximum temperature for assessment as 47.2 deg. C based on climate projection to the late 2090s. The proposed approach to secondary mitigation for avoiding odour nuisance is to amend or upgrade odour controls as and when required by environmental permits. Anglian Water should state the maximum temperature to be used in the design of the primary mitigation i.e. the initial build and confirm that this is not 38.7 deg. C. AW should also present evidence that primary mitigation can achieve the levels of source control envisaged. There appears to be potential for AW to under-invest in odour control in the initial build and rely on future upgrades to cope with climate change.

Affected Receptors

The proposed relocation will transfer odour impacts to hitherto unaffected receptors. SHH questions the accuracy of modelling which has not identified areas where nuisance will be introduced, e.g., southern edge of Horningsea village, northern section of housing on Horningsea Road, Fen Ditton and access to Fen Ditton Primary School

Visitors' sense of odour at a site visit July 2022 were compared with AW's portable H_2S gas detection meter. The extra odour due to discharge of sewage (not sludge) tankers and the uncovered primary tanks was notable. There was no odour noticed at around 50m from the sludge processing plant, closer inspection of this element of the works was not possible due to hazard restrictions. No reports have been identified about the potential to reduce odour pollution from the existing works. The proposed relocation will transfer odour impacts to hitherto unaffected receptors.

Operational Concerns

SHH's concerns about the proposed works also include:

(i) The likelihood of higher temperatures and possible septicity leading to greater generation of odour than modelled. This would include septicity in the transfer tunnel and in the Waterbeach pipeline and would lead to odour at the ventilation shafts. Modelling at ventilation shafts has not been undertaken although suggested by GCP (Ref 18).

(ii) The possibility that the commissioning phase will lead to greater generation of odour than modelled since the new bioreactors will have to 'settle down'.

10.7 Traffic and Transport

SHH remains of the view that direct permanent access to the site should have been taken from the eastbound carriageway of the A14. This was ruled out principally on the grounds that it did not conform to Department for Transport policy without adequately exploring the advantages and disadvantages of that arrangement and whether an appropriate exception to policy could have been granted.

The permanent site access arrangements at J34 have been designed to reflect the Applicant's commitment to help ensure that construction and operational HGVs entering and leaving the works site only do so via the A14. No construction HGVs will be permitted to pass through Horningsea or Fen Ditton. A peak hour ban on construction HGV movements is proposed.

SHH notes that a major cumulative adverse traffic impact, which is significant, is reported during operation, as a result of right turning vehicles onto the A14 on-slip road blocking straight ahead movements and that this can only be mitigated by a peak hour restriction on operational vehicle movements into and out of the works. SHH may make further submissions about the scope and enforceability of those arrangements as set out in the relevant Management Plans in further submissions.

10.8 Water Resources and Quality

Stormwater Capacity

SHH has concerns after review of the ES and supporting technical studies, about under-design of the stormwater system which, if corrected, would reduce space provision for upgrades after Phase 2 or, if uncorrected, lead to increased risks of pollution.

In summary these are:

(i) The proposed works introduces the risk of discharge to land and runoff to the Black Ditch and Quy Fen SSSI. For example, the site drainage pond is directly connected to the Black Ditch. Furthermore, planning permission for the pumping station at Waterbeach will be determined separately. A failsafe design or management plan is required and should be presented as part of the DCO application.

(ii) The Applicant should state the discharge capacity of the gravity pipelines discharging to the River Cam under future, full flood submerged tailwater conditions and confirm if the, unquantified, flow from the Waterbeach PS could bypass the lift pumps in the

Terminal Pumping Station.
(iii) The frequency and duration of sewage overflows under future conditions should be no worse than at present, (detriment); the latter need to be examined in detail and any improvements required under the DEFRA 2023 Plan taken into account.
(iv) Clarification is needed as to if/how a +20% factor was included in the supporting storm model study.
(v) Storm overflow data from 2021 and 2022 should be presented for Riverside and Cambridge CSOs.

Water Quality
Water quality arising from the proposed discharge and water quality limits are discussed in the ES Chapter 20 and supporting material.

A potential reduction of 20% in the summer low flow of the River Cam upstream of Cambridge is described in relation to climate change. However, the consequent reduction in dilution at the works outfall has not been carried through to any discussion or predictions of water quality in the ES or Habitats/WFD assessments. Under that scenario, substantially higher proportions of summer low flows would be effluent than at present or as assessed in the ES, with over 50% of low flow at Bottisham Lock consisting of effluent. The necessary mitigation for this needs to be presented.

It is foreseen in the ES that consent limits will be lowered in future to achieve the same or better downstream water quality. The applicant should be required to examine the 'with-Climate Change' scenario in more detail and estimate what these limits might be and how much extra treatment plant might be needed and whether that can be accommodated within the works bund.

Waterbeach WRC at present discharges into Bannold Drain, which is used for agricultural irrigation. No mitigation is proposed after the works closes for the loss of this flow in the drain, including restoring that potential agricultural supply. The Applicant should propose appropriate mitigation to be delivered as part of the DCO.

10.9 Conclusions on Environmental Harm
The PD will cause substantial harms:
(iii) to a large area of valuable Green Belt (Section 7);
(i) as a result of unacceptable and insufficient design and landscaping proposals (Section 8); and
(iv) unnecessary and avoidable carbon emissions (Section 9).

The Applicant's Environmental Statement identifies a number of adverse environmental effects during both construction and operation as summarised in the Non-Technical Summary (AW 5.1). In some instances, as set out above, those effects are of greater importance or significance than the Applicant has assessed. All of the adverse effects,

including those not graded as significant, constitute harm to some extent and have to be material considerations in making a decision whether to grant the DCO.

Drawing on the Environmental Statement and the commentary in Sections 10.3 to 10.8, SHH believes that the following are important harms, which should be given considerable weight in rejecting the application:

(i) The permanent loss of over 90ha of Best and Most Versatile agricultural land and temporary adverse effects on at least 12 farm businesses.
(ii) The loss of habitats, species, trees and hedgerows on both the main works site and along the extensive construction corridors for the tunnels, outfall and Waterbeach pipeline.
(iii) Insufficient biodiversity net gain.
(iv) Localised impacts during construction including noise on residents and on recreational users.
(v) Insufficient mitigation or enhancement of the public rights of way network to offset temporary and permanent impacts.
(vi) The harm to the settings of listed buildings, in particular, Biggin Abbey, and to conservation areas. Archaeological impacts, albeit to non-designated assets.
(vii) The widespread and permanent landscape and visual amenity harm during construction and operation, arising from significant adverse effects on the landscape character of valuable countryside and also on the visual amenity of some residents and recreational users.
(viii) The impacts of odour on recreational users of land around the works and potentially affecting residents fairly close to the new works at present not affected by odour from the existing works.
(ix) The cumulative traffic arising from works operational traffic and network growth, causing peak hour delays at the right turn junction onto the westbound A14 at Junction 34.
(x) The potential for harm to water quality and aquatic species in the River Cam arising from insufficiently stringent discharge standards and from climate change.

11. Funding and Deliverability

11.1 Key Issues

SHH has long had concerns about the certainty of funding for the relocation and hence the deliverability of the relocation, given the unusual funding arrangements which are tied to the delivery of housing on the existing site and on the remainder of the NECAAP. These are matters that have been pursued with the Applicant, Cambridge City Council and Homes England. SHH has only secured heavily redacted versions of the key HIF grant documents through FoI and other requests which have been used, where possible, to inform this submission.

It is certainly the case that site selection and project development have proceeded on the

basis that the Housing Infrastructure Fund (HIF) grant is the only funding available and that this is a maximum cash sum strictly time limited to delivery by March 2028. This is confirmed in the Planning Statement (AW 7.5) at para 1.7.6 and repeats information given during site selection.

The Funding Statement (AW 3.2) clarifies certain matters, including the limited use of additional funding from the AW regulated business to provide for the Waterbeach pipeline.

The Funding Statement does not provide sufficient information to establish that the test set out in the Compulsory Acquisition Guidelines can be met. These state, in part, that 'A funding statement must contain sufficient information to enable the Secretary of State to be satisfied that, if it were to grant the compulsory acquisition request, the PD is likely to be undertaken and not be prevented due to difficulties in sourcing and securing the necessary funding.'

The Funding Statement does not address any of the principal restrictions on the HIF grant set out in the Grant Determination Agreement and elsewhere. These mean that there is real uncertainty whether the full £227 million HIF grant will be made available or whether that is sufficient (even with the other sources now claimed to be available) to deliver the project to an acceptable standard with all necessary mitigation.

11.2 HIF Budget for the WWTP Relocation

The Funding Statement, para 3.1.8, states that 'The original cost estimate for the proposed WWTP reflects the HIF Agreement funding at approximately £227 million'. This is incorrect and does not accord with the estimates contained within the HIF business case.

The Grant Maximum Sum of £227m was priced for a long tunnel option, for a site located to the East of Waterbeach, yet the short tunnel option located nearer to the existing Cambridge WRC, at Milton but still North of the A14, was substantially less at £167m, with the difference in grant of £60m being for the longer tunnel infrastructure required, had the site been selected at Waterbeach.

The HIF Business Case, (HIF/FF/000069/BC/01CNFE) p29, states that 'The range is £167m to £227m, depending on the distance of the relocated WRC from the existing site.' Page 133 continues to state 'Please refer to the cost estimates for the relocation of CWRC (short and long tunnel options) included in Appendix R. Both of these options have been included because the location of the relocated CWRC is unknown at the moment, therefore, the longer option cost has been used as the potential maximum cost.' The referenced Appendix R was not provided for review.

The Homes England award was initially for the Maximum Sum of £227m to permit the longer tunnel option outside the Green Belt to be considered. However, the long tunnel option was removed from consideration at the early Initial Options Appraisal

stage. Despite its removal, the published Forward Funding Maximum Sum still appears to be incorrectly based on the Long Tunnel Option of £227m that has since been dropped by Anglian Water.

The Funding Statement notes that the HIF grant includes funding for the relocation site selection, design and consenting and enabling works, but no quantitative information is provided as to what share of the correct Forward Funding Maximum Sum will remain available for the Delivery Stage, including mitigation.

Clarity is required regarding the correct reduced Maximum Sum required from the grant for the shorter tunnel option currently proposed. The correct budget for the proposed DCO application site should be published, including the corresponding contingency available, to demonstrate the Applicant's ability to deliver an appropriate facility within the terms of the grant.

11.3 Anglian Water Ability to Control Costs

The HIF fund application business case acknowledges the likely timeframe for relocation and asserts, as contributory factors to its approval, that the proposed facility is based on demonstrated solutions and does not include significant innovation, has limited risk and that sufficient levels of optimism bias and contingency have been applied.

However, the Funding Statement para 3.1.9 states 'The construction contract for the PD is expected to be procured in 2023/24. On completion of this exercise, a revised project cost estimate will be crystallised. Planning conditions, design development and supply chain cost escalation (due in large part to inflation and construction industry market conditions) are being actively tracked and considered as they impact on contingency provision requirements for CWRPRL.'

This confirms that the Applicant has no clear idea, at the time of submitting the application, of the likely real cost of the project, measured against a fixed lower HIF grant. A current and accurate project cost estimate should be made available to the ExA.

11.4 Need for Additional Funding

The Funding Statement, para 3.1.10, and Statement of Reasons (AW 3.1, para 7.6.5) both confirm that 'the parties to the HIF Agreement are committed to working together to secure any additional funding required for the proposed WWTP to ensure the successful delivery of the PD.'

Except to a limited extent to pay for works such as the Waterbeach pipeline, AW's regulated business cannot contribute to meeting any cost overruns. It is not clear which of the other AW entities, CWRPL, AVHL and AW C4 Limited, have any independent sources of funds apart from the HIF Grant, on which to draw to meet those cost overruns. Para 3.1.10 of the FS does not constitute a sufficient statement that the necessary additional funding either can or will be made available.

11.5 Conclusion

The Applicant has not demonstrated that the PD meets the tests in the Compulsory Acquisition Guidelines.

12. Overall Planning Balance

12.1 Conflict with Policies in the NPPF and the Development Plan

For the reasons set out in Section 3, the PD falls to be considered primarily against the policies in the NPPF and the policies in the adopted local plans, in particular, the SCLP and MWLP. The emerging local plans for Greater Cambridge do not bring forward any proposed site for the WWWTP relocation in the Green Belt or elsewhere and have no specific development management policies against which the application can be considered.

As set out in Sections 4 and 5, these emerging plans are at a relatively early stage in preparation, have yet to be formally consulted on or scrutinised at Examination and therefore should be given little weight in the determination of this application.

The PD is not in conformity with, nor does it meet the requirements of the policies in the NPPF and the adopted local plans, principally in relation to the protection of the Green Belt, design, and sustainability. This is set out in Section 6 and all the relevant policies are listed in Annex A.

12.2 Green Belt Harm

The Applicant accepts that the PD is 'inappropriate development' in the Green Belt and that the relevant Green Belt policy tests to be met if the application is to be approved are those now set out in the NPPF in paras 137 to 150 and amplified in the SCLP.

Section 7 sets out SHH's submission that the Applicant has presented an inadequate assessment of harm from the PD to the openness and purposes of the Cambridge Green Belt. In overall terms, SHH's evidenced view is that the overall harm to Green Belt caused will be 'substantial' and should be assessed as 'very high harm' across a large area of Green Belt both within and adjoining the application site, during construction and thereafter permanently following completion. That impact area covers some 400ha of Green Belt.

As set out in Section 8, the layout and design of the PD, including the landscape and other mitigation, does not record with national or local design policies, is inadequate for this green belt location and, crucially has not sought to minimise the adverse environmental impacts.

12.3 Other Harms

There is no operational need to relocate the Cambridge WWTP and, as set out in Section

9, the PD will give rise to unnecessary and avoidable carbon emissions from construction and demolition of the existing works. The existing works could be upgraded to be operationally net zero.
The Applicant has identified in the Environmental Statement adverse environmental effects from the PD both during construction and operation, all of which should be taken into account in making a decision to reject the application. SHH has, in Section 10.9, listed those important harms, which include harm to nationally designated historic assets.

12.4 Very Special Circumstances
The Applicant in the Planning Statement (AW 7.5) in Section 6.2 summarises their case that 'very special circumstances' exist which would allow the application for an inappropriate development that causes 'substantial harm' to Green Belt to be approved.

These are divided into three groups of reasons, by the Applicant:

(i) Need including need for the land occupied by the existing facility

(ii) Suitability of the site and lack of alternative sites

(iii) Potential benefits of the PD

(i) Need, including need for land occupied by the existing facility.
As set out in Sections 3 and 4 of this Representation, the PD is not an NSIP and there is no operational need for the PD.

The Applicant is relying almost entirely on the 'need for the land occupied by the existing facility' as the main 'very special circumstances' that would allow the grant of consent. This derives entirely from the planning case for the emerging NECAAP (and the emerging GCLP), which are the responsibility of Cambridge City Council and South Cambridgeshire District Council. The Applicant is presenting no new arguments or evidence to support of the planning case or their claim in para 2.1.13 of the PS that 'there is a need for the land…for other compelling reasons'.

The Greater Cambridge Local Plan is in a state of flux. As set out in Section 4.4, there are alternative sustainable locations to meet likely housing need and, at the same time, many constraints on the deliverability of NECAAP as presently proposed. The pressing need for the existing site for housing is by no means established and, as such, these are not 'compelling reasons' that are 'very special circumstances' that would outweigh the harm to Green Belt and any other harm.

(ii) Suitability of the site and lack of alternative sites.
The Applicant has failed to consider the feasibility of consolidating and improved the CWWTP on its existing site (see Section 5.4) as an alternative to relocation. The Applicant's process for the selection of a relocation site was seriously flawed and has not established that there are no better alternatives to the location or specific site selected

for the PD (see Section 5.5). The case for the suitability of this site and a lack of alternatives has not been made and this cannot therefore be 'very special circumstances'.

(iii) Potential Benefits.
In para 6.2.13 of the Planning Statement, the Applicant claims that there are nine specific benefits from the development that together form 'very special circumstances'. SHH will make further representations about these benefits. Some of these are wrongly identified as benefits and none of the others have much substance.

Those wrongly identified as benefits include the 'building of a low carbon facility' and 'capital cost efficiency'. There will be unnecessary and avoidable capital carbon emissions as a result of replacing a sound existing facility. It is also difficult to argue that replacing an operational works as the main element of the new facilities at a cost of £227 million or more is capital cost efficient.

Other claimed benefits, such as 'operational net zero', 'improved storm resilience', 'biogas production' and 'improved discharge quality' could all equally well be achieved by creating a consolidated and improved works on the existing site.

The remaining benefits that are claimed, relating to 'habitats and biodiversity net gain', 'accessible paths and open space' and 'enhanced recreational opportunities' are, in SHH's view, appropriate and necessary mitigation measures and are not by definition 'very special circumstances'.

The potential benefits claimed are not sufficient to be 'very special circumstances' that would outweigh the harm to Green Belt and any other harm.

12.5 Conclusions

The application should be considered and determined in accordance with s 105 of the Planning Act 2008. The application is not in accordance with the relevant planning policies in the NPPF and the adopted local plans. Considered overall, there will be 'substantial harm' to Green Belt and other harm. There are no 'very special circumstances' that would outweigh that harm and therefore the DCO should not be made. Even if the application were to be determined under s104 of the Planning Act 2008, this conclusion remains the same, on the basis that there is no operational need for development, and no other need relevant for purposes of NPSWW. NPSWW therefore does not support making a DCO pursuant to s.104(3).

13. DCO Provisions

13.1 Introduction
SHH has, within the time available, examined the relevant documents submitted and

intends to submit more detailed submissions on these and other relevant documents during the Examination.

13.2 Draft Development Consent Order (AW 2.3)

Matters which SHH will wish to raise include, but are not limited to, those set out below:

(i) Article 6 Limits of Deviation where these affect certain Works

(ii) Low Fen Drove Way. There are no provisions to address the continued existence of and future management of vehicular use of parts of Lower Fen Drove Way. These are necessary to avoid or reduce inessential use of LFDW, especially at its western end.

(iii) Articles 23 and 35 and Schedule 16 in relation to the protection of trees within land to be acquired temporarily, where these are not TPO or TCA, and to the reinstatement of trees and hedgerows removed during construction. Various commitments and assumptions relating to the removal and reinstatement of trees and hedges are set out in the Environmental Statement, for example, in Chapter 15, Landscape and Visual Amenity, some of which need to be incorporated within the Order or an amended LERMP.

(iv) The provisions relating to maximum building height, diameter and footprint parameters are set out in Requirement 4 and Schedule 14. These are exactly defined in terms of height AOD. It is not clear from the Environmental Statement, where these parameters are referred to, but often expressed differently, whether the maximum heights now included in the draft Order have been properly applied in, for example, the landscape and visual impact assessments and the photomontages. SHH may also make further representations seeking reduction or amendment to those height, diameter and area parameters. In particular, SHH will be seeking the inclusion of binding parameters in the Order in relation to the dimensions of the main circular earthwork bund around the new plant (Work 15). We do not agree that the submitted segmented design is appropriate or fit for purpose. Parameters that will need to be set include minimum height above existing ground levels, minimum top and base widths.

13.3 Land within Limits, Works and Land Plans

SHH made representations during the Statutory Phase 3 Consultation for additional off-site landscape planting, which are essential to mitigate landscape and visual impacts of the new plant, which will require additional land to be brought into limits. These are noted in Sections 8 and 10.5 of this RR. They include (i) land to the east of Horningsea Road, between Horningsea cemetery and Lower Fen Drove Way to allow extra triangular copses to be planted, to more effectively close off views of the main plant for pedestrian and other users of Horningsea Road. These can maintain some open views eastwards (ii) a strip of land along the north side of High Ditch Road to the east of the former railway as far as LFDW, to also include a footpath and cycleway, and (iii) in Fen Ditton on the north side of High Ditch Road, behind and to the east of houses in the Conservation Area to screen views of the main plant. The footpath and cycleway would need a new provision in the draft Order.

SHH may make further submissions relating to land required for the Waterbeach pipeline and the transfer tunnel, where limits, albeit of land to be acquired temporarily, have included land which is unnecessary. In particular, the alignment of the Waterbeach Pipeline South (Work 36) should have been brought closer and parallel to that of the Transfer Tunnel (Work 27) to the west of Horningsea Road, Fen Ditton. This would avoid unnecessary disruption to agriculture and minimise prospective loss of hedgerows and trees.

13.4 Management Plans

SHH will make further submissions in relation to the scope and content of the Code of Construction Practice (CoCP) and other Management Plans submitted as part of the application, in particular various provisions within the LERMP, especially in relation to improving the regimes for maintaining and encouraging landscape tree growth and to managing public access and use of the landscaped areas on the core site surrounding the new plant. The LERMP and CoCP, in particular, are intended as the binding basis for later detailed submissions to the relevant LPAs. Other Management Plans should be given a similar binding status through the Requirements.

References

1. SHH website https://www.savehoneyhill.org/save-honey-hill/our-campaign-objectives/
2. GCLP Strategy topic paper, Development Strategy Update, January 2023
3. GCLP SA Addendum: Sustainability Commentary on Emerging Alternative Development Strategy Options, January 2023
4. Greater Cambridge Shared Services, Chronology of the feasibility investigations of redevelopment of the Cambridge Waste Water Treatment Plant. Published online, April 2021
5. Land Use Consultants (LUC), Greater Cambridge Green Belt Assessment, 2021
6. Landscape Design Associates, Cambridge Green Belt Study, September 2002
7. Chris Blandford Associates, Greater Cambridge Landscape Character Assessment, for Greater Cambridge Shared Planning, 2021
8. LDA Design, Cambridge Inner Green Belt Boundary Study, 2015
9. Anglian Water Annual Performance Report 2022, revised April 2023
10. Carl Elefante, former president of the American Institute of Architects
11. Embodied Carbon in Construction, Maintenance and Demolition in Buildings: Ding, Grace 30/01/2018 p217 (Section 9.2 second para)
12. 8th Annual Global Conference on Energy Efficiency IEA analysis September 2022 IEA cement
13. British Standards Institution BS 6187:2011 Code of practice for full and partial demolition
14. Woolston Meeting 28 January 2015 Section 2 Woolston Community liaison group Woolston Thames Water

15. Figure 1, p7 Odour exposure Contours around Cambridge WRC - Technical note on Interpretation of 'Odour Impact Assessment for Cambridge Water Recycling Centre' Report by Odournet October 2018
16. ES Chapter 18 5.2.18 Technical Working Groups Key points Table 1.4.
17. Addendum Report - updated odour dispersion modelling for Cambridge Water Recycling Centre
18. Greater Cambridge Shared Planning Response Scoping Opinion Report PINS WW010003 November 2021 Appendix 2, page 23

Annex A: National and Local Planning Policy Compliance

NPS Waste Water 2012
The Applicant in the PS, Table 3.1, notes which of the policy objectives in NPSWW Chapter 2, it claims the PD is in conformity. In our view, the claimed conformities are of very limited value, many of them being at best matters of good environmental and development practice. Some, such as improving water quality or the overall reduction in capital carbon emissions, have not been demonstrated adequately in the application.

Section 4 of the PS sets out the Applicant's assessment of conformity with the Generic Policies in Chapter 4 of NPSWW. SHH disagrees with certain key elements of the assessment, where the project will cause harm and/or the project creates significant residual adverse effects. In any event, SHH considers that the project has to be judged against the policies in the NPPF, acknowledging that in some cases, the generic policies in NPSWW are also relevant, where they remain up to date and represent good practice in the provision of infrastructure projects.

National Planning Policy Framework 2021
The NPPF is the appropriate policy framework for determining this application. The PD does not comply with or meet the following key principles and policies in NPPF:

Para 11. Is not in accord with development plan policies so presumption in favour of sustainable development fails to be met.

Para 20 and 23. Strategic policies and site designations should make sufficient provision for waste water infrastructure.

Para 130. Does not meet national design criteria, in particular (a), (b) and (c).

Para 132. Inadequate consultation and advice during emerging design.

Para 137 and 138, 147 to 150. Harm to openness and purposes of Green Belt from inappropriate development and other harm not outweighed by very special circumstances.

Para 174. Does not contribute to or enhance the natural environment as required by 174 (b).

Para 202. Harm to significance of designated heritage assets not outweighed by public benefits.

Adopted South Cambridgeshire Local Plan 2018

The PD, for which consent is sought, is not in conformity with or does not meet the requirements of the following policies in the adopted local plan:

S/1 Vision. A place of sustainable economic growth with residents having a superb quality of life in an exceptionally beautiful, rural and green environment.

S/2(b) Objectives of Local Plan. Protecting the character of South Cambridgeshire, including built and natural environment and Green Belt
S/3 Presumption in Favour of Sustainable Development. Reflects the principles and tests set out in NPPF.
S/4 Cambridge Green Belt. Protects by application of the NPPF policies.
S/7 (2) Development Frameworks. Not a form of development to be permitted in 'countryside' location.
SS/4 (3) The North East Cambridge Area Action Plan proposals have not been tested. Public consultation awaits the outcome of this DCO.
CC/1 Mitigation and adaptation to climate change. Contrary to principles. Unnecessary carbon emissions including those from demolition of a fully functioning plant.
CC/2 (1a) Renewable and Low Carbon Energy. The plant, including associated energy production, has unacceptable adverse impacts on heritage assets, natural assets and high quality agricultural land.
HQ/1 Design Principles. Three key principles are not being met: a) preserve and enhance rural character b) conserve or enhance historic assets and settings d) be compatible with location and appropriate in scale etc in relation to surrounding area.
NH/2 Protecting and Enhancing Landscape Character. Development must retain or enhance local character and distinctiveness of the local landscape.
NH/3 Protecting Agricultural Land. Development must not lead to loss of agricultural land in grades 1,2 or 3a, unless there is an overriding need.
NH/6 Green Infrastructure. Does not support or deliver green infrastructure strategy or priorities.
NH/8 (1) Mitigating Impact of Development in and adjoining the Green Belt. Development must be located and designed not to have adverse impact on rural character and openness of the Green Belt.
NH/14 Heritage Assets. Development needs to sustain or enhance the special character and distinctiveness of the historic environment and designated assets, including conservation areas, settings of listed buildings and distinctive character of villages and countryside.
SC/9 Lighting. External lighting must not create adverse impact on local amenity or on surrounding countryside.

Adopted Cambridge City Local Plan 2018

Only minor components of the PD are in the City of Cambridge. The policies in the City Local Plan are designed to protect the special character and setting of Cambridge, including Green Belt, and make no specific provision for the relocation of the Cambridge WRC in the relevant Policy 15, Cambridge Northern Fringe East.

Any specific non-conformity of the PD with other policies will be included in further representations.

Adopted Cambridgeshire and Peterborough Minerals and Waste Local Plan 2021

The PD is not in conformity with or does not meet the requirements of the following policies in the plan:
Policy 1 Sustainable development and climate change - GHG emissions associated with demolition and relocation unnecessary or not assessed.
Policy 11 (d) Water Recycling Areas – inadequate mitigation measures for adverse environmental and amenity issues.
Policy 16 (f) Consultation Areas – Proposals include the use of land for regular community recreation use within the deemed consultation area around the new plant.
Policy 17 Design – PD fails to meet seven of the eight design principles (a) to (h) in this policy.
Policy 18 Amenity Considerations – (d) the PD would be unacceptably overbearing; (f) affect air quality from odour during operation; (g) light pollution during winter operations and sludge delivery; (i) possible increase in flies, vermin and birds.
Policy 20 Biodiversity and geodiversity – National sites – likely to have adverse effect on Quy Fen SSSI.
Policy 21 Historic Environment – Harm to heritage assets through impact on settings to listed buildings and conservation areas.
Policy 23 Traffic, Highways and Rights of Way – will increase congestion at Junction 34 A14, which cannot be fully mitigated. Fails to provide adequate mitigation and enhancement of the rights of way network.

Adopted Waterbeach Neighbourhood Plan 2022

SHH will include in further representations any relevant references to this plan.

Emerging Greater Cambridge Local Plan First Proposals

The GCLP First Proposals sets out themes or policy directions for consultation, drawing on relevant evidence and policies in the adopted local plans, to be considered and taken forward in the next iteration of the plan. The PD is contrary to a number of those policy directions, in particular, those relating to Great Places.