

Transport & other infrastructure

Inspector 914 words; CAUSE 2957

Issues

Is there sufficient certainty over the provision of necessary infrastructure to demonstrate that the garden community proposals in the Section 1 Plan are deliverable?

No. As set out in CAUSE consultation responses¹, specifically CAUSE Comments on Amendments; Viability; Transport Appraisal of Section 1 by Walker Engineering; CAUSE addendum to transport appraisal: West Tey specifics; Water; Rail Capacity; Healthcare. There is not sufficient certainty or confidence that any necessary infrastructure is deliverable.

Has sufficient evidence been provided to demonstrate the viability and feasibility of the proposed Rapid Transit System [RTS]?

No. As set out in consultation response and hearing statement from Steve Johnson, Walker Engineering on behalf of CAUSE and other parties.

Does the Section 1 Plan make sufficiently clear requirements about the provision, timing and phasing of necessary infrastructure, and are those requirements justified?

What is being proposed by the NEAs is unprecedented. The biggest urbanisation since Milton Keynes is being presented as a step change, to be delivered under ‘garden city principles’ which are promoted as being exemplar. It is entirely appropriate to set the bar high since anything less will not be exemplar. The requirements are therefore wholly justified.

However, the Section 1 Plan itself is not clear enough about what is required, or how it is to be delivered, or at what cost, as set out in CAUSE’s submission on the proposed amendments. The Plan does not go far enough to set out clear requirements. It contains some ‘nice to have’ policies, but the supporting evidence contains disjointed efforts which the NEA have commissioned to justify their desire to build their three new towns at their chosen locations. The various documents do not hang together and the result is an undeliverable project which does not meet the high bar exemplar ambitious aspirations of press statements and the Section 1 Plan itself. Much of the Plan is not a plan at all, but a collection of concepts and aspirations.

We agree with Mike Lambert’s hearing statement that, without crystal-clear, hardwired, policy requirements, the floodgates will be opened for ‘tailgaters’, such as L&Q, to propose heavily watered down ‘garden communities’ which do not deliver the infrastructure, green space, affordable housing and other requirements of a garden city. The particular risk will be on off-site impacts, which developers will be keen to avoid contributing to. Note Carter Jonas’ statement in consultation response for Gateway 120 that *“the Council’s evidence includes unnecessarily burdensome*

¹<http://www.cause4livingessex.com/about-cause/cause-papers-and-evidence/>

Matter 6 Hearing Statement

assumptions.”, and that a rapid transit system, “should not be seen as a requisite for the justification of the garden communities, particularly at West Tey.”

Road funding and programmingQuestions for the NEAs and Highways England

1. Has funding been secured for the A120 improvement scheme between Braintree and the A12 through the Department for Transport’s RIS2 programme?

(a) If so: (i) has a route for the scheme been approved?

(ii) what is the programme for the scheme and when will it be completed?

(b) If not, what are the consequences for the feasibility of the West of Braintree and Colchester Braintree Borders GCs?

2. Does the A120 improvement scheme above include the grade separated A120 junction which is identified as requiring external funding in the Additional Sustainability Appraisal Appendix 4, p45 (Confirmation of Site Proposals – NEAGC1)?

3. (a) Does the funding that was committed under the DfT’s RIS1 programme for the A12 Chelmsford to A120 widening scheme remain committed for the scheme?

(b) If so, would the full costs of each of the route options shown in the Highways England consultation (Jan-Mar 2017) be covered by that committed funding?

(c) Is the proposed alignment of the A12 between Feering and Marks Tey in route options 2 and 4 of the Highways England consultation (Jan-Mar 2017) [EXD/066] the same as the alignment shown in Figure 15 of the AECOM Infrastructure Planning, Phasing and Delivery [IPPD] document [EB/088]?

4. (a) Is there still a possibility that funding will be secured through the Housing Investment Fund [HIF] for a more southerly realignment of the A12 in the Marks Tey area?

(b) If so, (i) what is the proposed alignment for which HIF funding is sought? (ii) when will a decision on the HIF bid be made, and what would be the likely timescale for completion of the realignment scheme?

5. Funding has been secured through the HIF for a A120-A133 link road to the east of Colchester.

(a) Would the full costs of each of the route options shown in the Essex County Council consultation (Nov-Dec 2019) [EXD/066] be covered by the HIF funding?

(b) (i) Are any other highway improvements needed to cater for the traffic generated by the Tendring Colchester Borders GC? (ii) If so, how would they be funded?

Questions for all participants, including the NEAs

6. What are the consequences of the answers to 3 (a), (b) & (c) for the feasibility of the West of Braintree and Colchester Braintree Borders GCs?

Matter 6 Hearing Statement

Our understanding of the current situation re the A12 upgrade is that:

- The Section 1 Plan/A12 HIF bid to re-route the A12 is preventing the upgrade of the A12, which would otherwise be progressing. (We know that land is being compulsorily purchased in the agreed section between Chelmsford and Kelvedon and this cannot happen between Junctions 23-25 because of the new routes);
- According to Highways England, the delay to the A12 upgrade is costing c£30m p.a.;
- We believe that a decision is required on route by March 2020;
- The funding for the widening of the A12 remains committed but that it is not sufficient for the new routes A, B, C & D proposed in the October 21 – December 1 consultation 2019, to support a larger West Tey;
- Routes A,B,C,D require HIF funding. Delivery is impossible without this funding. At time of writing, and for the purposes of examining the Part 1 plans, the HIF bid has not been granted. We oppose the HIF bid, which is chiefly for the re-alignment of a trunk road to support one development. It would appear that the location of West Tey is wrong if a trunk road has to be moved to accommodate it.
- It is not known whether the A12/newA120 junction will be in the A120 budget and the A12 budget. We understand that this has been a source of controversy. In the absence of any evidence it must be concluded that this is not deliverable.
- The autumn 2019 A12 J23-25 consultation ignored the original funded 2017 options and ignored the linkage with the new A120. The traffic modelling looked at the A12 in isolation.

CAUSE submitted a response to the A12 J23-25 consultation which we will submit to the Inspector with this hearing statement. We have also raised concerns with the Chief Executive of Highways England, which can be found here: <http://www.cause4livingsex.com/letter-to-ceo-highways-england-re-a12-consultation/> We have not had a response at time of writing.

Detailed information on routes A, B, C, D, including costings, air quality, traffic modelling, has been withheld from CAUSE by Highways England. We therefore believe that it is impossible to make an informed decision about the routes against each other, let alone when compared against 2017 'online' options. For the purposes of plan preparation the routes cannot be regarded as deliverable.

7. What are the consequences of the answers to 4 (a) & (b) for the feasibility of the Colchester Braintree Borders GC?

If the HIF bid is rejected, as it should be, because it does not represent value for tax-payers and brings no benefit to local communities, then the A12 upgrade can begin as planned in 2017. In that situation, if the Section 1 Plan can be found sound in the absence of the HIF bid, then West Tey would have to be reduced in size and/or connecting bridges and tunnels under the widened A12 factored into the masterplan and viability.

If the HIF bid is granted, and there is no evidence that it will be, then we believe that the A12 consultation will have to be-run again, and properly, as a fully evidenced consultation which allows stakeholders to make an informed decision. As a reference of an excellent consultation, we use the A120 Study, which creates a good precedent for what can, and should, be achieved.

Matter 6 Hearing Statement

8. What are the consequences of the answers to 5 (a) & (b) for the feasibility of the Tendring Colchester Borders GC?

We defer to Peter Kay's Hearing Statement.

Other infrastructure and phasingQuestion for the NEAs

9. Item 5.1 in section 3 of the Gleeds Infrastructure Order of Costs Estimate [EB/087] is described as 132kv connection to Primary Substation from Colchester Grid Substation and is estimated at £9.2M. Does that estimate include the cost of the primary substation itself, or just the connection to it?

Questions for all participants, including the NEAs

10. Do the Integrated Water Management Strategy [EB/015] and the AECOM IPPD document [EB/088] provide sufficient certainty that adequate provision can be made for water supply and waste water treatment for the proposed GCs?

No. Our concerns set out in our consultation response remain.

Since 30 September response, new evidence has come to light. As water is covered in three Matters, we have brought this together in one appendix with this Hearing Statement, for ease of reference. There are too many unknowns, too many risks and too many unanswered questions (Appendix Figures 1 & 4) for a project of the magnitude proposed.

New information includes:

- Confirmation from Anglian Water that sewage pipelines must be paid for by a developer. Therefore, the payments in Hyas for a 13km pipeline from CBBGC must be 'front-loaded' to ensure that the pipeline is built before residents move in. New information on an Anglian Water pipeline in Norfolk² demonstrates that a pipeline could cost £2million per km, i.e. double the cost allocated in Hyas. If there is an alternative interim solution, eg. pumping to Coggeshall, this needs to be costed and demonstrated feasible (Appendix Figs 1 & 2);
- Proposals by Gateway 120 for a new waste recycling centre but no confirmation that Anglian Water will pay for it and no explanation of why this might be acceptable when it was discounted in the IWMS. Interim solution of pumping water to Coggeshall needs to be costed, because G120 will have to pay for the 4.8km pipeline up front, before the first residents move into West Tey. Evidence needed to demonstrate that Coggeshall WRC can increase capacity sufficiently (Figs 1 & 2)
- Information from a local farmer that sewage from Tiptree is now to be pumped to Coggeshall. Has this been taken into account in capacity assessments?
- Sewer overflow data (Figs 2 & 3) -which raises concerns about impact on EU habitats sites (Fig 5)

² <https://www.anglianwater.co.uk/news/6.5million-new-pipeline-will-help-protect-the-environment/>

Matter 6 Hearing Statement

- Confirmation from Anglian Water that mooted reservoir expansion³ is at concept stage only – therefore, where will our region’s water come from if the reservoirs do not go ahead?
- Latest information from the Environment Agency showing that aquifers and rivers were still at low levels in October (Fig 4), and therefore we have concerns about the long-term impact on vulnerable aquifers and rivers (Fig 6) of increased abstraction to sustain growth proposed in the Plan and the Section 2 plans.

11. Is the approach to the phasing of infrastructure provision at the GCs, set out in the AECOM IPPD document, justified and appropriate?

We have covered this at length in our submission. The main problem with the AECOM IPPD document is that it does not sync with the Hyas appraisal. If the phasing set out in AECOM cannot be delivered, then no, it is not appropriate. This is one of the major shortcomings with the Section 1 Plan. The Plan itself sets out ‘nice to haves’. The AECOM IPPD fleshes this out further. The Hyas appraisals set out funding which does not match.

The table below illustrates the problem. It looks just at West Tey and only at Phase 1, and picks out just some examples of how the approach cannot be justified and is not appropriate. We are happy to do further work on this if the Inspector would find it helpful:

³ <https://adambrookes.mycouncillor.org.uk/2018/04/01/revealed-anglian-water-plans-for-billion-pound-south-lincolnshire-reservoir-near-spalding/>

AECOM EB/088 Phase 1 CBBGC	HYAS funding by 2,550 homes (Year 19 2035/36)	CAUSE comment
4 GPs, 4 Dentists, 12% Community space & libraries	£4m during Phase 1.	What is 12% community space & libraries? Either there is a library, or there isn't. Note also ASA states 4,500 homes support healthcare spoke, i.e. no healthcare before 4,500 homes, which is inconsistent with AECOM and Hyas. CAUSE concerns re cost of healthcare in our submission. A healthcare centre needs to be built before the first homes. Currently it appears that until 4,500 homes are built, GC residents will be using GP's in existing centres. This brings obvious problems of overloading existing facilities. Likely that £4m is insufficient to deliver ALL AECOM Phase 1 community infrastructure.
Primary & secondary road network 12%	?	Not clear what this relates to in Hyas.
13km sewage pipe connection 100%	Staged payments throughout Phase 1.	Anglian Water confirms pipeline cost falls on developers. What happens before the 13km pipeline is built? Why isn't it built as site enabling infrastructure? Are the pipeline costs adequate (see CAUSE water appendix)? If Rowhedge pipeline not in place from Day 1, interim solutions need setting out, with costs and delivery dates, and this will be tricky: Coggeshall WRC requires expansion & a 4.8km pipeline; Copford no scope to expand; Great Tey – issues with flow of Roman River.
Park & ride 10%	£3m of £6m allocated in Phase 1	Inconsistent. Which is it to be? How is 10% or half a Park & Ride to be delivered?
Marks Tey station & junction package & Stane St reduction 58%	£15m of £25.8m in Phase 1, although payments in three tranches	As we set out in our Rail Capacity submission, Network Rail has strict guidelines about station improvements and it is not clear that the authorities have begun the process of discussions about what improvements might be feasible and when. Not clear what Stane Street reduction means in practice or whether it is planned if A120 not granted funding in RIS 2. Improvements must be made at the start of Phase 1.
Gas 100%	£6.1m but all in the final three years of Phase 1	We believe that the Hyas £6.1m should feature before the first dwellings
2 Early years; 2 primary +EY; 8FE	£26.2m (of which £11m in 35/36	The Hyas payments come too late in Phase 1 for all these schools to be delivered.
GEML: No improvements	£0	No contribution towards GEML infrastructure upgrades. Why? 2019 Anglia Route Study shows extent of infrastructure interventions required for the passenger increase on the line, and it is not clear that West Tey is factored in. CAUSE

		2017 estimated a £190m contribution required from West Tey
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12. Would an alternative approach to phasing be preferable, such as that set out in the Infrastructure Delivery Plan by Create, submitted with the response to EB/088 from Carter Jonas on behalf of L&Q, Cirrus Land & G120?

No. We have stated in our submission that we see NEA garden city promises watered down since original submission of the Section 1 Plan ('garden city lite') and we see from Carter Jonas further attempts to water down infrastructure delivery. It is important to re-iterate that the development proposed is not matched in scale anywhere in England, even 'just' the 17,000 homes proposed by G120. It must be properly infrastructured and it is important to remember the off-site impacts of a development of this scale.

We note that G120's Phase 1 includes no secondary school, no new access onto the A12, no link road between Coggeshall and the A12, no employment land and no station improvements. It is also not clear at what stage in Phase 1 the promised infrastructure is actually delivered. By the end of Phase 1 there will be 6,000 inhabitants of G120's settlement. Where will the secondary age children go to school? Where will adults work? Given the lack of employment provision on site, is the assumption that they will commute via Marks Tey? In which case, why are the station improvements not early in Phase 1?

G120 proposes an ill-conceived 'bypass' in Phase 1. In reality this is nothing more than a development enabling estate road which loops off the over-crowded A120 and back onto it later on. It does not 'bypass' anything. It does not solve any congestion problems. In fact, the opposite -it generates additional traffic and spits it out onto the A120. Even if the new A120, Route D, is built, 2,500 homes will equate to around 15,000 car movements a day on the current A120 which will still be single lane.

The G120 submission also requires detailed questioning around sewage treatment. G120 propose an initial pipeline to Coggeshall for phase 1. However, this would be 4.8km long and G120 itself notes that expansion of capacity by 1000 homes has not been guaranteed feasible. A pipeline will cost £5-10m, and we have not seen this detailed in the viability appraisals. There is a definite concern about Coggeshall's ability to expand, given that we now know that Tiptree's sewage may be pumped there.

G120 then proposes (5.35-5.38) a new waste water treatment plant and says it has in principle agreement from Anglian Water and the Environment Agency. If this is the case, then we would need to see a) costs of the plant and when it would be built b) how the problems with building a new treatment plant set out in the IWMS have been overcome. Note that it was not the preferred option, as we set out in footnote 8 of our consultation response, due to: 'certain risks', unquantified; a new centre would result in other local centres closing; summer flow in the Chelmer would be reduced; drinkable treated effluent may be pumped into a different area, creating abstraction issues. (CAUSE understands that most of north Essex's rivers' flow is maintained by water from sewage treatment works.)

Matter 6 Hearing Statement

13. (a) Are the Section 1 Plan's policies sufficiently clear about what infrastructure needs to be provided, and by when?

No. There is a need for one, overarching document which pulls together the array of evidence base documents to create a realistic plan of what is deliverable and when. CAUSE has gone through the process of analysing different sections of the plan (water, healthcare, employment, for example) and in each case the evidence is disjointed and does not form a cohesive plan. In other words, there needs to be *one* properly worked project schedule, with time lines showing what needs to be done when in synch with the housing. A proper project schedule is essential for any large project

Rail –

Having read the Anglia route study 2019 referenced in EB/049, our concerns made in our submission about rail capacity remain. It is clear that the new rolling stock is a temporary solution, that timetabling only offers the possibility of a few tweaks here and there, and that station improvements and infrastructure interventions are now needed to address the ever-increasing demand on the line. As we stated in our submission, the wording in the Plan is too vague. The latest Anglia route study demonstrates that interventions are still uncosted, still unfunded and not scheduled. It therefore seems extraordinary that the NEAs wish to build a new town adjacent to a station on the mainline and that they are not seeking developer contributions from any of the garden communities for infrastructure on the GEML. Jonathan Tyler, of Passenger Transport Networks, notes, "It must therefore be concluded that any substantial increase in capacity beyond that being achieved with the new fleet of trains remains indeterminate three years on from the Route Study and will face large questions about the value for money of complex engineering projects. **The so-called 'investment choices' are too thinly defined to sustain plans for large-scale housing development"**

(b) Should the Plan's policies require funding for key infrastructure to be committed before planning permission is granted for any of the GCs?

Yes. For example, no garden community should proceed until key infrastructure is in place.

(c) Should the Plan's policies link the phased provision of infrastructure to defined trigger points in the phasing of development at the GCs?

Yes. And, as in b) trigger points should be 'before construction'

Rapid Transit System for North Essex

CAUSE has jointly commissioned Steve Johnson of Walker Engineering to answer the questions below. Please see his hearing statement, submitted separately.

Questions for all participants, including the NEAs

[In responding to these questions, would the NEAs please address the criticisms of the document Rapid Transit System for North Essex: from Vision to Plan [EB/079] contained in participants' consultation responses, including the technical note by Walker Engineering

Matter 6 Hearing Statement

appended to Mr O'Connell's response, and the Technical Note by RPS which forms Appendix 3 to the response from Turley on behalf of Parker Strategic Land.]

14. Are the capital costs for the proposed RTS set out in section 5.1 of the Vision to Plan document [EB/079] realistic?

15. Have sources for all the necessary capital funding for the RTS been identified?

16. Do sections 5.2, 5.3 and 5.4 of the Vision to Plan document provide reliable estimates of revenue, operating costs and commercial viability for the RTS?

17. Funding has been secured through the Housing Investment Fund [HIF] for a bus-based RTS serving the Tendring Colchester Borders GC.

(a) Which elements of the RTS scheme proposed in the Vision to Plan document would be covered by the HIF funding?

(b) Would any additional funding be required to complete Route 1 of the RTS scheme as proposed in the Vision to Plan document?

(c) If so, how would that additional funding be secured?

18. How would connecting public transport services within the proposed garden communities be funded?

19. Is the proposed phasing of the introduction of the RTS system

(a) realistic? (b) consistent with the proposed timing of development at the garden communities?

20. Does the Vision to Plan document provide sufficient reassurance at this strategic stage of planning that it would be feasible in physical terms to construct the proposed RTS system?

21. What are the implications for the GCs of the proposal not to build Route 4, linking the Colchester and West of Braintree sub-systems, until after 2033?

22. The Vision to Plan document proposes a bus rapid transit system initially, potentially to be replaced beyond the Section 1 Plan period by trackless trams. Are these proposals justified and consistent with the Plan's aspirations for high-quality rapid transit networks and connections?

Mode Share Strategy

23. Are the refined mode share targets set out at Figures 7-1, 7-2 & 7-3 of the Mode Share Strategy document [EB/080] justified by the evidence contained and referenced in that document?

24. Should these (or other) mode share targets be included as requirements of the Section 1 Plan's policies?



Infrastructure first

Matter 6 Hearing Statement

Extra information on Water as an Appendix, next page

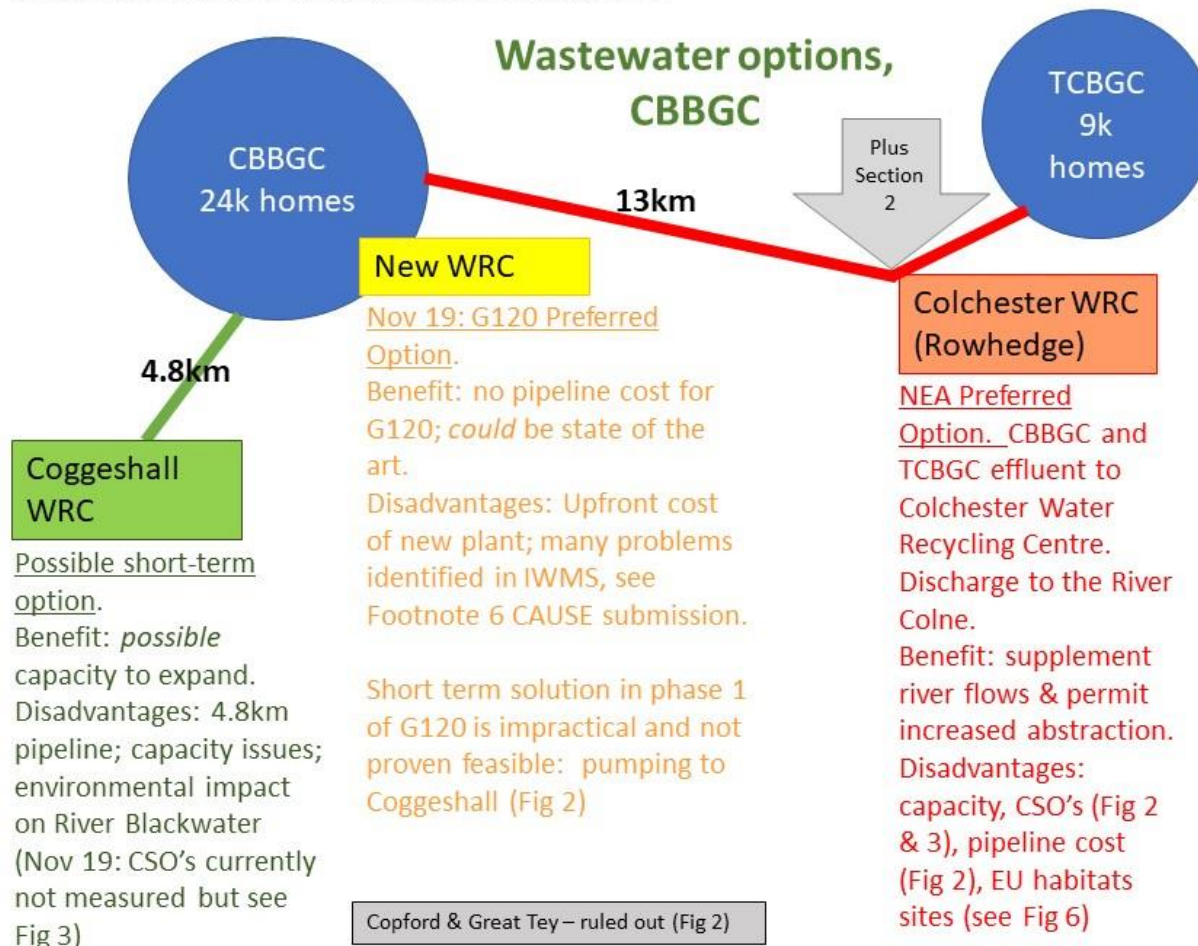
Water, Section 1 Plan,

Hearing Statement appendix

Summary – many concerns remain about how water will be supplied to the garden communities and how wastewater will be treated. Figures in this appendix:

1. Waste water treatment options, CBBGC
2. Water Recycling Centres capacity to expand
3. Combined Sewer Overflows
4. Supply
5. EU sites maps
6. Vulnerable rivers & aquifers

Water appendix for hearing statement Figure 1



QUESTIONS

WRC upgrades*

When? Capacity? Impact of Section 1 PLUS Section 2?

Impact of Tiptree's sewage on Coggeshall WRC (Nov 2019)?

What likelihood of application by AWS for new or revised discharge permit being granted?

What impact on rivers, RAMSAR etc?

Pipelines (developer pays)

When will they be built?

Is £13.3m in Hyas enough? (Nov 2019: Norfolk AW 3km pipeline cost £6.5m)

West Tey - Coggeshall pipeline 4.8km uncosted but c£5m-£10.5m

*In general, water recycling upgrades required for additional growth are wholly funded by Anglian Water through business planning process from customer bills as determined by Ofwat.

Water appendix for hearing statement Figure 2

Waste Recycling Centres which could serve West Tey			IWMS 5.3 Headroom						
WRC	West Tey comment IWMS	Anglian Water L/T Plan	No of CSOs	% growth 2020 to 2025	% growth 2020 to 2045	Headroom cax after growth (m3/d)	Ma no addtl houses GCs	Head-room cax after growth	% of permitt ed flow after GC growth) *
Coggeshall	Nov 2019 - we understand Tiptree WRC is at capacity & sewage is to be pumped to Coggeshall. What impact will this have on Coggeshall's capacity? From IWMP: Limited cax. Potential land available but significant upgrades required. Coggeshall WRC was identified as the most appropriate potential Option 2 for CBB garden community. This option would require significant upgrades to the existing WRC, as well as approximately 4.8 km of new pipeline and a new pumping station. The indicative pipeline route identified would potentially cross a number of rural fields and a small number of minor roads, therefore there would be minimal disruption to public access. Denitrification of the additional flows to Coggeshall WRC would need to be considered	Additional WRC flow capacity AMP7 (20-25) £1.48m; CSO investigations AMP7 £0.019; CSO improvements AMP8 (25-30) £0.4m. Design horizon of scheme delivered in AMP7 = 2032	3	21	42	-506	24,000	-10,147	-454%
Great Tey	Would require complete rebuilding of the works; opposition due to nearby Roman sites; discharges into Roman River which is small & regularly dries up in summer months; therefore capacity for significant additional discharge is limited due to env cax		0			22	24,000	-9618	-6773%
Copford	No land for expansion as surrounded by designated sites	Additional WRC flow capacity AMP7 (20-25) £5.6m & 8 (25-30) £3.6m	5	8	92				
Birch	At 70% capacity								
Colchester WRC (Rowhedge)	of the local topography and environment designations was undertaken to identify a potential pipeline route and suitability for new pumping infrastructure. This option would require approximately 13 km of new pipeline (£13.3m in Hyas, staged payments) and a new pumping station. The pipeline route would need to cross the Roman River and a major dual carriage road (the A120), as well as the B1022, the B1025, the B1026 and a number of minor roads.	Increased drainage capacity - SuDS & upsizing (Defined scheme) AMP7 £6.6m; AMP8 £0.63m; AMP9 (30-35) £22.9m; CSO investigations AMP7 £0.09 ; Additional WRC flow capacity AMP8 £10.8m	25	11	29	1,419	24,000 +	-11,642	-40%
*Application through application by AWS for new or revised discharge permit is req'd									

Water appendix for hearing statement Figure 3

Combined Sewer Overflows

Below is the latest CSO Spill Data for Colchester, an extract of the most recent data return Anglian provided to the EA relating to spills during 2018. See also data in Fig 2, although unclear over what period spills were recorded.

To what extent has the impact of these spills on EU sites downstream been measured and to what extent has the impact of future spills when garden community waste is pumped to Colchester been measured?

EDM Return for Anglian Water Annual 2018

Period selected from 01/04/2018 to 31/12/2018 Colchester CSO Spill Data

Water Company Name	Site Name	Permit No.	Activity Reference (if more than one discharge) on permit	Shellfishery (Only populate for storm overflows that have Shellfish water EDM requirements)	Bathing Beach (Only populate for storm overflows that have bathing water EDM requirements)	Total Duration (hours) of all spills prior to processing through 12-24 hour counting method	Counted spills using 12-24hr counting method	% of reporting period EDM operational
Anglian Water	Colchester - Hunting Gate CSO	ASETS19244	CSO	Colne, Pyfleet	N/a	7.07	37	97.50%
Anglian Water	Colchester - Hy the Bridge	AW2TSE00863	CSO	Colne, Pyfleet	N/a	0.10	2	100.00%
Anglian Water	Colchester - Rowhedge Albion St CSO	ASETS15689	CSO	Colne	N/a	0.50	6	100.00%
Anglian Water	Colchester - Rowhedge Regent Court CSO	ASETS15688	CSO	Colne	N/a	22.63	12	100.00%
Anglian Water	Colchester - Royal London Middleborough EO	ASENF19245	EO	Colne, Pyfleet	N/a	2.43	3	84.63%
Anglian Water	Colchester - St Albans Rd CSO	ASENF4126/19246	CSO	Colne, Pyfleet	N/a	19.87	5	5.37%

- Anglian Water reports annually on the spill frequency for a number of our CSOs to Environment Agency (EA). Not all of CSO permits currently have a permit requirement to record/report the spill frequency.
- There was no reporting requirement for Coggeshall in 2018.
- The spill data for 2019 is not currently available as the data will be produced at the end of this year and verified before Anglian Water provides this to the EA in February 2020.

Water appendix for hearing statement Figure 4

Supply to the GCs

Will the proposed solutions* deliver sufficient capacity? What certainty? When? What population growth is assumed? What is the “alternative future” Ofwat refers to? What will the impact be on vulnerable aquifers and rivers (see Fig 6)?

NOV 19: **Anglian Water has confirmed that new reservoirs are currently options only. No decisions have been taken about whether these options will be included in the next WRMP to be published in 2024.**

SOURCES OF WATER SUPPLY

Now - Anglian Water: 8 reservoirs, 8 direct supply river intakes (50%); groundwater abstraction (50%): 200 water sources; over 450 boreholes. Affinity supplies Tendring.

***Future** - *Proposed* local supply solutions: East Suffolk transfer (from Ipswich to Colchester via a new 22km long pipeline); amendment to Ardleigh Reservoir Operation, to make more water available from the reservoir to supply the garden communities extension to Ardleigh reservoir); groundwater development, (utilising an existing licenced borehole in the Colchester area), from IWMS. National – new South Lincolnshire reservoir proposed.

NOTE – CAUSE has addressed concerns about assumptions around water use, grey water & water neutrality in our consultation submission & does not repeat this here. We have looked at IWMS, WRMP, OFWAT, NEA evidence base. None give us reassurance that supply will be adequate for the Plan.

STRESSES

OCT 19: Environment Agency water situation report, East

Anglia:

- “81% of indicator sites across the area remain below normal or lower with 50% of sites notably low or lower. Two sites in the chalk aquifer (Cam and Lark) have had some response but remain with notably low flows as the chalk aquifer has yet to show significant recharge.”
- “The Lodes-Granta groundwater support scheme has 5 out of 6 pumps operating with 3 of these operating 24 hours a day. The Rhee groundwater support scheme has 7 out of 8 pumps operating with 5 of these operating 24 hours a day. The pump on the Hiz groundwater support scheme has been operating 24 hours a day”
- 2 out of 5 reservoirs still below normal

Groundwater levels in the East at their lowest for nearly 30 years

20 August 2019

News

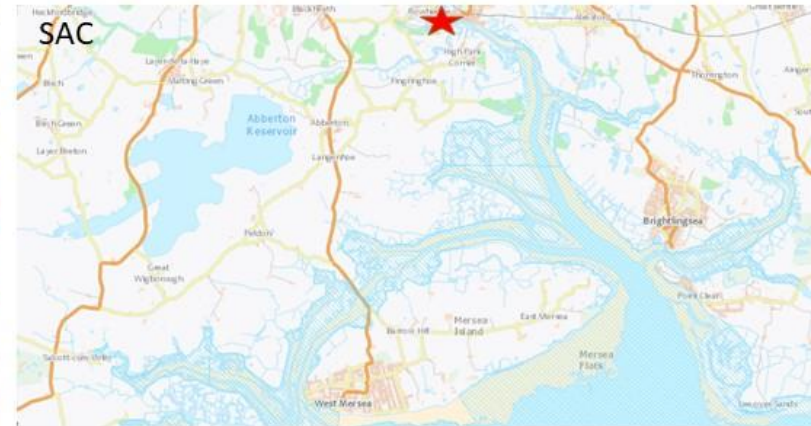
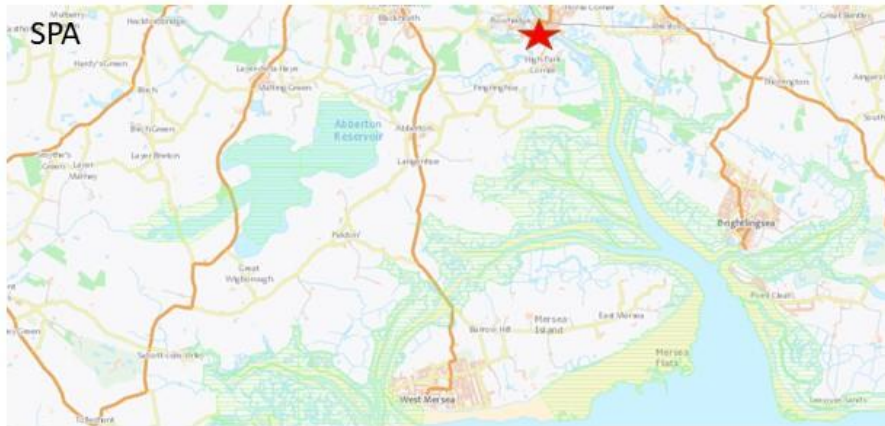
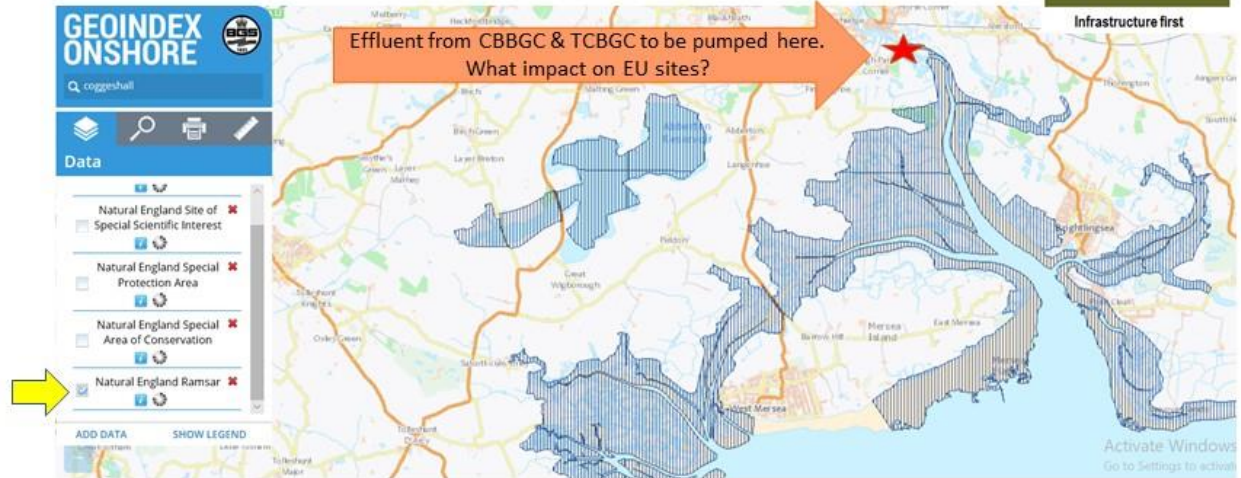
Water appendix for hearing statement 5

Background for reference
Vulnerability –
RAMSAR, SPAs,
SACs,

Types of designation referred:

- Ramsar sites are areas of wetland which are designated of international importance under the Ramsar Convention (1971).
- Special Protection Areas (SPAs) are sites which support rare, vulnerable and migratory birds.
- Special Areas for Conservation (SACs) are sites which support high-quality habitats and species.

★ Approx location of Colchester WRC, upstream of EU sites



Water appendix for hearing statement 6

Background for reference: Vulnerability – rivers & aquifers

Note:

1. **Vulnerable** river system north Essex
2. **High** vulnerability aquifer under Colchester, Rayne, Saling and **medium** around and around Coggeshall area

Sources: Anglian Water DRMWP 2019 & DEFRA Magic Map; <https://www.anglianwater.co.uk/news/groundwater-levels-in-the-east-at-their-lowest-for-nearly-30-years/>

