TAKELEY STREET ACTION GROUP (TSAG)
REGULATION 25 FORMAL PLANNING REPRESENTATION

ADDENDUM TO TSAG SUBMISSIONS

TSAG "Regulation 25 Summary Response", 15th June 2026 and "Response to SUDS" 2nd September 2026

Planning Application: Land North of Taylors Farm

Application Reference: UTT/25/2786/OP

Local Planning Authority: Uttlesford District Council

Submitted by:
Takeley Street Action Group (TSAG)
A local residents' action group representing +650 residents of Takeley and neighbouring towns and villages.

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Contact:
Takeley Street Action Group (TSAG)
Email: takeleystreet@gmail.com
Website: www.savetakeleystreet.com

Dr Jean Johnson
Hawthorns, The Street, Takeley, CM22 6NB. jeanj2@me.com

Mrs A Evans
3 Stane Cottages, The Street, Takeley, CM22 6NB. allisonevans1@aol.com

Mr Tasos Colocasidou
Richmond, The Street, Takeley, CM22 6QS. mail@tasos.co.uk

Ms A Boyle
7 Forest Gate, The Street, Takeley, CM22 6YR. annboyle36@gmail.com

This representation is made in the public interest and is intended to assist the Local Planning Authority, statutory consultees and members of the Planning Committee in reaching a lawful, informed and sound planning decision.

TSAG -Addendum

1 Introduction

1.1 This document is an addendum to TSAG submission "Regulation 25 Summary Response", 15th June 2026 and to TSAG submission "Response to SUDS" 2nd September 2026. The first TSAG document cited above (15th June 2026) relates specifically to "Potable Water, Foul Water and Surface Water" and the latter (2nd September 2026) to the recent SUDS holding objection.

1.2 We have also reviewed the Environment Agency submissions **(November 2025 and May 2026)**. The EA have commented on this planning application based on documentation provided by the developer. Discrepancies in that documentation have since come to light.

1.3 Our key concerns are:

1.3.1 The number of employees cited by the developer to support their calculations about economic growth are almost three times **higher** than the proposed number quoted by Uttlesford at the Local Plan hearings to Pins in their submission titled "UDC note water cycle study addendum – employment floorspace **June 2025**" in their attempt to convince the inspectorate that the site was sustainable. According to the footnote, the lower number was provided by the Developer (*See Appendix A*).

1.3.2 Evidence cited by the developer relating to pre-planning advice is over a year out of date and does not reflect the most recent advice submitted by Thames Water as recently as **May 2026.**

1.3.3 The Pre-Planning advice for this site has not been submitted in full by the developer as part of this application yet is noted by the Environment Agency as part of their statutory response (November 2025). It cannot be considered evidential if not fully submitted and in the public domain available to all Consultees.

2 Environment Agency Submission as Statutory Consultee to UTT/25/2786/OP
28 November 2025 and 18 May 2026 following Regulation 25 request

2.1.1 The Environment Agency (EA) submitted a document ref AE/2025/130988/01-L01 in **November 2025**[1] referring to the *"latest EIA document volume 111 (Water resources) prepared by Richard Jackson Ltd and the planning Statement prepared by Savills Uk",* ie these documents are the evidence base for the original EA Statutory Consultee response.

[1] https://publicaccess.uttlesford.gov.uk/online-applications/files/1BE9DF38FBE1F33E1C5B04A6C431DFF2/pdf/UTT_25_2786_OP-EIA_-_VOL_1_11_-_WATER_RESORCES__INC._FLOOD_RISK_AND_DRAINAGE_-4604578.pdf

Of particular concern is a comment in the EA statement summary:

> *"Thames Water have confirmed within their pre development response that they will be in a position to provide additional capacity to accommodate the Development post planning consent should this be achieved in due course".*

To clarify the position of Thames Water, they stated categorically page 199 of 203 of FRA (Site Specific Flood Risk Assessment **Oct 2025**[2]):

> *"We've assessed your foul water proposals and concluded that unfortunately we're unable to meet the needs of your full development at this time".*

2.1.2 TSAG are aware that Thames Water provided some upgrades to Takeley Wastewater Treatment Works in 2025, but these upgrades did not add sufficient capacity to deal with Land North of Taylors Farm.

2.1.3 The EA have evidently prepared their document on the basis that both the Consultant documentation and the Planning Statement submitted by the Developer are accurate when TSAG have noted numerous discrepancies in submitted documentation. We refer you to the TSAG submissions on the portal. The EIA Screening request for example cited up to 1000 employees whilst the application for Planning Permission is for almost three times that number.

2.1.4 We further note that the EA stated: "*We are satisfied that SuDS are adequately covered*" when in fact SUDS, rightly, queried the developer submissions in a holding objection dated **10th August 2026.** TSAG submitted a review of the SUDS document on 2nd September 2026. It may be that the EA are unaware of these later submissions.

2.2 The EA submitted a further document **18 May 2026**[3] ref AE-2025-130988/02 following Regulation 25 request.

2.2.1 In that document, section 2 "Potable and Wastewater Capacity" they noted:

> *"Thames Water will carry out modelling, design and planning to confirm wastewater capacity for the site. However, confirmation of both capacities must be confirmed before development begins"*

Critically, on **28th May 2026**, Thames Water stated unequivocally that Takeley Wastewater Treatment Works does **NOT** have capacity to deal with the proposed Land North of Taylors Farm Development.

> *"Thames Water has identified an inability of the existing SEWAGE TREATMENT WORKS infrastructure to accommodate the needs of this development proposal".*

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[2] *https://publicaccess.uttlesford.gov.uk/online-applications/files/726B03DDF4399E056945812A6CC56BE1/pdf/UTT_25_2786_OP-ENVIRONMENT_AGENCY_-_RESPONSE-4735202.pdf*

[3] *https://publicaccess.uttlesford.gov.uk/online-applications/files/726B03DDF4399E056945812A6CC56BE1/pdf/UTT_25_2786_OP-ENVIRONMENT_AGENCY_-_RESPONSE-4735202.pdf*

3 Uttlesford Local Plan 2021-2041 examination UDC note Water Cycle Study Addendum – Employment Floorspace

3.1 This document was submitted at the last minute to PINS at the LP Hearings in **June 2025.** It was not made available for public scrutiny prior to the hearings. It has not been submitted as part of this Planning Application but has been appended (See Appendix B) to this document as **material** to this Planning Application.

This document was commissioned and paid for by UDC and prepared by their own Consultants to support the Local Plan.

3.1.1 Specifically:

- Table 1 Page 1 identifies 81000 sqm of floor space and up to 1000 employees at LNTF. (See Appendix A below)

- The current Planning Application identifies 83000 sqm of floor space and *"An estimated 2,857 gross FTE jobs will be supported on-site by the employment floorspace"*.

The Conclusions of the Water Cycle Study addendum page 2 identify sufficient capacity at Takeley Wastewater Treatment Works to accommodate **up to 1000** employees, but the current application for Land North of Taylors Farm is for almost three times that number.

3.2 The Water Cycle Study addendum also notes*:*

> *"the diversion of flows from new development (or their equivalent) to Bishops Stortford continues to be recommended"*

This is particularly relevant to concerns raised by the EA with regard to Pincey Brook which continues to receive significant discharge of raw sewage directly related to Takeley Wastewater Treatment Works (TWwTW) We refer you to TSAG submission "Response to SUDS" 2nd September 2026" picture 1.

3.3 There is no attempt by the developer to send wastewater to Bishops Stortford – recommended by UDC's own consultants and presented by UDC as evidence to PINS.

4 Conclusion

4.1 There is no clarity concerning either if or when any necessary additional works to Takeley Wastewater Treatment Works might be completed.

4.2 Whilst the wastewater strategy provided by the developer might be deliverable in theory, in practice it is unlikely to be deliverable within the context of the current Local Plan – if at all. A Planning Condition is likely to be unworkable within the lifetime of the

Local Plan, particularly with the cumulative effect from other major developments coming forward.

4.3 The developer has not provided any reliable evidence that guarantees that Good Ecological Status of Takeley Watercourses can be achieved. We further understand TWwTW is not expected to meet all Government storm overflow targets until 2045-2050, which exceeds the lifetime of the Local Plan.

The developer response (TECHNICAL NOTE: REGULATION 25 RESPONSE, Richard Jackson Consultants, date 15 April 2026) section 3 Waste water states:

> *"there is some assurance that once planning permission is granted, Thames Water will provide the necessary reinforcement works"*

The reality is that on **28th May 2026**, over one month after the Developer submission that this is not the case at all. (See section 2.2.1 above). Thames have stated unequivocally that they cannot meet the needs of this proposal. Guesswork by the Developer is not acceptable, particularly given the proximity to a SSSI.

4.4 Should the developer wish to quote pre-planning advice, they should submit that evidence in full to the portal otherwise it is hearsay. They should not selectively quote passages that they consider favourable. It would be helpful if they used the opportunity to explain the massive discrepancy in employee numbers (cited to PINS by UDC). They should also document how this affects potential economic growth and GVA.

4.5 The application appears to conflict with UDC Core Policies 34, 36 and 42 and with the NPPF August 2026 policy E2. It is immoral to even consider connecting this site to TWwTW when the evidence from UDC and presented to PINs during the LP hearings clearly raised concerns. Uttlesford themselves have emphasised in the newly adopted Local Plan that the site **should** connect to Bishops Stortford. The Developer acknowledged this on their website before removing it from the public domain.

4.6 In the light of the TSAG review of the evidence, the application conflicts with the site examined for the Local Development Plan and cannot be considered sustainable.

Appendix A:

Extract from UDC NOTE
WATER CYCLE STUDY ADDENDUM – EMPLOYMENT FLOORSPACE, Page 1[4].

Table 1 Employment allocation floorspace comparison

Allocation	Stage 2 WCS floor-space (m2)	Stage 2 WCS estimated employees	Local Plan projected floorspace (m2)	EIA screening floorspace (where available) (m2)	EIA screening employees estimate (where available)
Land north of Takeley Street, Takeley	8,500	260	81,000	84,542	up to 1,000
Land south of A120/North of Stortford Road, Great Dunmow	9,500	290	81,000	N/A	N/A
Land east of Shire Hill Farm and south of Radwinter Road, Saffron Walden	8,000	244	10,000	N/A	N/A

Extract from Environmental Impact Assessment Screening Request, Page 13[5].

Topic	Assessment
Population	During construction / decommissioning, it is considered unlikely that the Proposed Development will result in a significant change in population. It is acknowledged there would be an increase in employment during the construction period, however workers are unlikely to relocate to the area on a permanent basis as a result of the Proposed Developments construction.The construction period will have a temporary effect on employment provision through the creation of construction jobs, and indirect effects on local shops and services.This will create a beneficial effect for the local area, albeit only temporary and therefore unlikely to be significant. Once operational the Proposed Development has the potential to provide 1,000 new jobs for the local area, which is a beneficial effect for the local area and local economy. This new job creation has the potential to lead to a change in population through the relocation of people to this area due to the creation of new jobs which can have further beneficial indirect effects on local shops and services.

[4] https://www.uttlesford.gov.uk/media/14250/Note-on-Water-Cycle-Study/pdf/Note_on_Water_Cycle_Study.pdf?m=1773678349363
[5] https://publicaccess.uttlesford.gov.uk/online-applications/files/3CBE13A51BFD2D7B76A18A973A4E34F6/pdf/UTT_24_2682_SCO-SCREENING_REQUEST-4378901.pdf

Appendix B:

UTTLESFORD LOCAL PLAN 2021-2041 EXAMINATION

UDC NOTE

WATER CYCLE STUDY ADDENDUM – EMPLOYMENT FLOORSPACE

1. Summary

1.1. The purpose of this note is to update the Inspectors on an addendum to the Stage 2 Water Cycle Study (**WAT2**) which updates its findings with regard to three employment site allocations in the Local Plan in respect of water supply, wastewater and water quality.

1.2. In June 2025, the Council's consultants (JBA) identified a discrepancy between the floorspace assumptions in the Water Cycle Study (WCS) and the projected employment floorspace resulting from the site allocations. This discrepancy affects three sites which are allocated for B2 and B8 uses and has resulted from an error in the calculation of gross to net developable area for those use classes.

1.3. **Table 1** sets out the floorspace used for the WCS and the projected floorspace resulting from the Local Plan allocations, based on the gross to net ratios from the Employment Needs Update 2023 (**EMP1,** paragraph 5.5). The table also includes the estimated floorspace and number of employees set out in the Scoping Report accompanying the request for an EIA scoping opinion for the proposed development at Land north of Taylors Farm, Takeley Street[1], submitted on 17 January 2025 under application reference UTT/25/0125/SO[2].

Table 1 Employment allocation floorspace comparison

Allocation	Stage 2 WCS floor-space (m2)	Stage 2 WCS estimated employees	Local Plan projected floorspace (m2)	EIA screening floorspace (where available) (m2)	EIA screening employees estimate (where available)
Land north of Takeley Street, Takeley	8,500	260	81,000	84,542	up to 1,000
Land south of A120/North of Stortford Road, Great Dunmow	9,500	290	81,000	N/A	N/A
Land east of Shire Hill Farm and south of Radwinter Road, Saffron Walden	8,000	244	10,000	N/A	N/A

1.4. As a result of the error identified above, JBA have prepared an addendum which corrects the projected floorspace and assesses its potential impact on water supply,

[1] Note that this site is referred to in the Water Cycle Study as "Land north of Takeley Street" but as "Land north of Taylors Farm" in the Local Plan. The WCS

[2] Available at: https://publicaccess.uttlesford.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=SQBXRPQN01O00

capacity at wastewater treatment works and water quality. The addendum is appended to this note at **Appendix A**.

2. **Conclusions of the Stage 2 Water Cycle Study**

2.1. The Stage 2 WCS concluded that the demand for potable water resulting from Local Plan growth could be accommodated by Affinity Water, albeit subject to upgrades to the water supply network. It also concluded that there was sufficient wastewater treatment capacity at Takeley, Great Dunmow and Saffron Walden to accommodate the additional load resulting from the proposed employment allocations.

2.2. The Stage 2 WCS modelling predicted that Good Ecological Status could not be achieved at Takeley due to future growth. Consequently, the study recommended that new developments are connected to Bishops Stortford wastewater treatment works (WwTW) which has sufficient capacity to accommodate the growth, or that equivalent flows are diverted to Bishops Stortford where the catchments are adjacent.

3. **Conclusions of the Water Cycle Study addendum**

3.1. The addendum concludes that, although the increased floorspace will inevitably result in greater demand for water and wastewater treatment, there remains sufficient capacity in the water supply network and at the respective treatment works to accommodate this additional demand.

3.2. The addendum also notes that the conclusions with regard to water quality at Takeley are unchanged, and the diversion of flows from new development (or their equivalent) to Bishops Stortford continues to be recommended.

3.3. The addendum recommends, at Paragraphs 4.1.2 and 4.1.3, that the Council engages further with Thames Water over the increased floorspace and wastewater demand at Takeley and Great Dunmow due to the change in the estimated number of employees.

4. Next steps

4.1. The Council considers that the addendum demonstrates that the Local Plan employment growth can be accommodated by the wastewater network, and is satisfied that the increase in projected floorspace does not materially alter the conclusions that were reached in the Stage 2 Water Cycle Study.

4.2. As per the recommendation in the addendum, the Council will ensure Thames Water are made aware of the increased wastewater demand resulting from the employment site allocations and continue to engage on an ongoing basis, albeit outside of the Local Plan process.

Appendices

Appendix A: Stage 2 Water Cycle Study Addendum (June 2025)

TECHNICAL NOTE

JBA Project Code	2025s0490
Contract	Uttlesford EiP Support 2025
Client	Uttlesford District Council
Day, Date and Time	09 June 2025
Author	Paul Eccleston
Reviewer / Sign off	Richard Pardoe
Subject	Water Cycle Study Stage 2 Addendum 1: Updated Employment Allocation Water and Wastewater Demand

1 Introduction

JBA Consulting are appointed by Uttlesford District Council to provide advice on flood risk and water related issues, in relation to the Examination in Public (EiP) of the Uttlesford Local Plan 2021-2041. This technical note forms an addendum to the Stage 2 Water Cycle Study (WCS) for Uttlesford (WAT2), in relation to changes to the size and potential water and wastewater demand of three employment allocations.

Please note that references to documents in the Updated Submission Examination Library use the published referencing system, e.g. WAT2 for the Stage 2 Water Cycle Study.

2 Revised allocation information

Uttlesford District Council (UDC) provided updated floorspace estimates for three employment allocations (Table 2-1). In addition, for the allocation Land north of Takeley Street, Takeley, an Environmental Impact Assessment Screening Request has been received by UDC from the site promoters[1]. This includes a revised floorspace and an estimate of up to 1,000 employees, which has been used to recalculate water and wastewater demand. For the other two sites, the number of employees was calculated using an average of B-class uses, using the same approach applied to all employment sites in the WCS.

1 Pegasus Group (2024) Environmental Impact Assessment Screening Request. Land North of Taylors Farm, Takeley Street .

Table 2-1: Revised site allocation information

Allocation	Stage 2 WCS floor-space (m^2)	Stage 2 WCS estimated employees	Actual Floorspace (m^2)	EIA screening floorspace (where available) (m^2)	EIA screening employees estimate (where available)
Land north of Takeley Street, Takeley	8,500	260	81,000	84,542	up to 1,000
Land south of A120/North of Stortford Road, Great Dunmow	9,500	290	81,000	N/A	N/A
Land east of Shire Hill Farm and south of Radwinter Road, Saffron Walden	8,000	244	10,000	N/A	N/A

3 Water resources and water supply

3.1 Water resources

The increase in potential numbers of employees resulting from the revised employment allocation floorspaces results in an increase of demand from all allocations in the Local Plan from 1.36Ml/d to 1.66Ml/d. This is a small change and does not, therefore, alter the conclusions of the Water Cycles Studies (WAT1 and WA2) with respect to the availability of water resources to serve the growth proposed in the Local Plan. Core Policy 34 (ULP1) includes a policy requiring water efficient design in employment settings: "proposals for non-residential development should achieve at least three credits under the BREEAM "Wat01" measure."

3.2 Water supply

All three allocations fall within the Affinity Water (AfW) supply area. Affinity Water did not make any site-specific comments relating to these sites either during preparation of the Water Cycle Study (WAT1, WAT2) or to the Regulation 18[2] and Regulation 19[3] consultations. Therefore the conclusions of the Stage 2 WCS remains; "it is likely that upgrades to the water supply network will be required in order to serve the preferred

2 Uttlesford District Council (2025) Regulation 18 Consultation Report https://www.uttlesford.gov.uk/article/9425/Regulation-18-Consultation-Report

3 Uttlesford District Council (2025) Regulation 19 Representation Database https://consult.uttlesford.gov.uk/planning-policy/0d509657/consultation/published_select_respondent?show_all_questions=0&sort=submitted&order=ascending&_q__text=thames

allocations without a detriment to existing customers. Modelling by AfW may be required to define the extent of these upgrades."

4 Wastewater network and treatment capacity

4.1 Wastewater network

4.1.1 Overview

Thames Water and Anglian Water provided Red/Amber/Green (RAG) assessments of wastewater network capacity to serve all proposed allocations for the Stage 2 WCS (WAT2).

4.1.2 Land north of Takeley Street, Takeley

This allocation is anticipated to connect to Thames Water's wastewater network in the Takeley catchment.

Thames Water gave this allocation a Green RAG rating with no further comments. Thames Water's Regulation 19 response did not make comments specific to this allocation.

Given the significant change in the estimate of employees, it is recommended that Thames Water be consulted on the amended floorspace and wastewater demand for this allocation.

4.1.3 Land south of A120/North of Stortford Road, Great Dunmow

This allocation is anticipated to connect to Thames Water's wastewater network in the Bishops Stortford catchment.

Thames Water gave this allocation a Green RAG rating with no further comments. Thames Water's Regulation 19 response did not make comments specific to this allocation.

Given the significant change in the estimate of employees, it is recommended that Thames Water be consulted on the amended floorspace and wastewater demand for this allocation.

4.1.4 Land east of Shire Hill Farm and south of Radwinter Road, Saffron Walden

This allocation is anticipated to connect to Anglian Water's wastewater network in the Saffron Walden catchment.

Anglian Water gave this an Amber RAG rating, stating that "No significant acute risk but cumulative loading on CSO will need to be planned for. Network will be vulnerable to creep." This site allocation also includes provision for 879 dwellings, and of the total revised wastewater demand from the site (0.298Ml/d), only 10% (0.029) is from the employment allocation, therefore we consider it is unlikely that the conclusions in WAT2 regarding the wastewater network capacity would change as a result of the change in floorspace.

Anglian Water's Regulation 19 response did not make comments specific to this allocation.

Given the small change in the scale of this allocation, we consider the result of the Stage 2 WCS (WAT2) remains valid.

4.2 Wastewater treatment

The revised wastewater demand as a result of the changes to the three employment allocations is presented and compared to WAT2 in Table 4-1. Demand is summarised by Wastewater Treatment Works (WwTW) and includes growth from housing and employment sites, including commitments, proposed allocations and windfall.

Table 4-1: Change in wastewater demand by WwTW, WCS vs Addendum

WwTW	WCS: Additional housing units	WCS: Additional employment space (m^2)	WCS: Additional wastewater demand (Ml/d)	Addendum: Additional housing units	Addendum: Additional employment space (m^2)	Addendum: Additional wastewater demand (Ml/d)
Bishops Stortford WwTW	19,262	278,887	6.756	19,262	350,387	6.964
Saffron Walden WwTW	2,361	12,800	0.766	2,361	14,800	0.772
Takeley WwTW	486	8,500	0.173	486	84,582	0.244

The revised estimates of wastewater demand were added to the existing (2021-2023) wastewater flows, and compared to each WwTWs permitted dry weather flow. The results, shown in Table 4-2, are similar to those in WAT2.

Table 4-2: Revised WwTW capacity assessment

WwTW	Predicted housing during LP period (no. dwellings)	Predicted employment during LP period (m^2)	Estimated remaining capacity at end of Local Plan period	Capacity Assessment
Bishops Stortford WwTW	19,262	350,387	-10,842	AMBER - Likely to exceed permit by 2035. Upgrades and / or a change to permit limit may be required. No significant constraints have been identified.
Saffron Walden WwTW	2,361	14,800	-838	AMBER - Likely to exceed permit by 2035. Upgrades and / or a change to permit limit may be required. No significant constraints have been identified. Anglian Water commented in their Reg 19 response: "Whilst the Stage 2 WCS indicates that there would not be sufficient headroom to accommodate all the proposed growth over the plan period at Saffron Walden WRC, there is currently headroom to deliver growth in the short to medium term. Further assessment will be undertaken through our next Drainage and Wastewater Management Plan (DWMP) and this will inform future growth investment in subsequent asset management periods (AMPs)"
Takeley WwTW	486	84,582	477	GREEN - Sufficient capacity to accommodate growth

5 Water quality

5.1 SIMCAT proposed scenarios

The increases in potential wastewater demand as a result of the revised floorspace areas could impact the conclusions of the water quality impact assessment in WAT2.

The increased uplift in flows at Saffron Walden WwTW is very small (0.8%) and within the levels of uncertainty in the water quality model, and therefore the Wash SIMCAT model covering this area was not revised. The WAT2 water quality results remain for this WwTW and for the allocation at Land south of A120/North of Stortford Road, Great Dunmow.

The change in flow uplifts at Bishop's Stortford and Takeley are significant, and therefore the Thames SIMCAT model was updated and rerun. WAT2 identified that planned development in the Takeley catchment could prevent the waterbody from being able to reach Good Ecological Status (GES) for phosphate. Consequently, an additional scenario was tested assuming that the additional wastewater flows from all commitments, allocations and windfall are treated at neighbouring Bishop Stortford WwTW. The WAT2 results showed that the additional flow at Bishops Stortford would not cause significant deterioration, and that the diversion of this flow away from Takeley would allow Good Ecological Status to be met in the future.

Consequently, two similar scenarios have been simulated with the revised flow uplifts:

- Scenario 1: 6.964Ml/d increase on baseline for Bishops Stortford, 0.244Ml/d increase on baseline for Takeley.
- Scenario 2: 7.208Ml/d increase on baseline for Bishops Stortford, 0.000Ml/d increase on baseline for Takeley.

The modelling process was otherwise as reported in WAT2. Table 5-2 to Table 5-5 below replace Tables 8.2 and 8.3 in WAT2 for Bishops Stortford and Takeley WwTWs. The RAG assessment was applied as shown in Table 5-1.

Table 5-1 Possible GES assessment results

Predicted to achieve GES after growth	Could achieve GES today with improvements in upstream water quality?	Could achieve GES in the future with improvements in upstream water quality?	Assessment Result
YES	N/A	N/A	GREEN - Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES.
NO	YES	YES	AMBER - Proposed development can be accommodated with a tighter permit and upgrade to treatment. This is achievable with current technology.
NO	NO	NO	YELLOW - Good ecological status cannot be achieved due to current

Predicted to achieve GES after growth	Could achieve GES today with improvements in upstream water quality?	Could achieve GES in the future with improvements in upstream water quality?	Assessment Result
			technology limits. Ensure proposed growth doesn't cause significant deterioration.
NO	YES	NO	RED - Environmental capacity could be a constraint to growth.

Table 5-2: Scenario 1, additional flow to Bishops Stortford and Takeley, Water Framework Directive assessment results

WwTW	Could the development cause a greater than 10% deterioration in water quality for one or more of Ammonia, BOD, Phosphate?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?
Bishops Stortford	No	No	n/a
Takeley	Yes [Phosphate]	No	Yes

Table 5-3: Scenario 2, additional flow to Bishops Stortford only, Water Framework Directive assessment results

WwTW	Could the development cause a greater than 10% deterioration in water quality for one or more of Ammonia, BOD, Phosphate?	Could the development cause a deterioration in WFD class of any element?	Can a deterioration of >10% or in class be prevented by treatment at TAL?
Bishops Stortford	No	No	n/a
Takeley	No	No	n/a

Table 5-4: Scenario 1, additional flow to Bishops Stortford and Takeley, Good Ecological Status assessment results

WwTW	Ammonia	Biochemical Oxygen Demand	Phosphate
Bishops Stortford	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Yellow] Good ecological status cannot be achieved due to current technology limits. Ensure proposed growth doesn't cause significant deterioration
Takeley	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Amber] Proposed development can be accommodated with a tighter permit and upgrade to treatment. This is achievable with current technology	[Red] Environmental capacity could be a constraint to growth

Table 5-5: Scenario 2, additional flow to Bishops Stortford only, Good Ecological Status assessment results

WwTW	Ammonia	Biochemical Oxygen Demand	Phosphate
Bishops Stortford	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Yellow] Good ecological status cannot be achieved due to current technology limits. Ensure proposed growth doesn't cause significant deterioration

WwTW	Ammonia	Biochemical Oxygen Demand	Phosphate
Takeley	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES	[Green] Sufficient environmental capacity. Proposed development has no significant impact on the water body's potential for meeting GES

From this assessment, the same conclusions are drawn as in WAT2, namely that there is a potential that planned growth in the Takeley catchment would prevent the waterbody from reaching Good Ecological Status (GES) in the future. This risk could be avoided by transferring all planned development (or the equivalent wastewater flow) from the Takeley WwTW catchment into the Bishops Stortford WwTW catchment. The engineering feasibility of such a transfer has not been assessed.

A final test was made to assess whether a smaller development at Land north of Takeley Street, Takeley would alleviate the water quality issue identified above. This was tested by reducing the flow uplift at Takeley WwTW by 0.095Ml/d, the assessed wastewater discharge from a 1,000 employee development. This test made no difference, the remaining planned development in the catchment of Takeley WwTW is still predicted to prevent the water body from reaching GES in the future. Therefore, adjusting the scale of development at Land north of Takeley Street, Takeley would not resolve the water quality issue.

6 Environmental impact

The updated water quality modelling results were used to reassess impact at environmental designations downstream of Takeley and Bishops Stortford WwTWs. Results are presented for both scenarios in Table 6-1 and Table 6-2.

Table 6-1: Scenario 1, additional flow to Bishops Stortford and Takeley, water quality impact on protected sites

SSSI name	% deterioration Ammonia	% deterioration BOD	% deterioration Phosphate	Can deterioration be prevented by treatment at TAL?
Debden Water	15%	0%	3%	Yes
Little Hallingbury Marsh	9%	13%	6%	No – BOD deterioration remains at 11%
Sawbridgeworth Marsh	2%	13%	6%	Yes
Thorley Flood Pound	9%	13%	90%	No – BOD deterioration remains at 12%

Table 6-2: Scenario 2, additional flow to Bishops Stortford only, water quality impact on protected sites

SSSI name	% deterioration Ammonia	% deterioration BOD	% deterioration Phosphate	Can deterioration be prevented by treatment at TAL?
Debden Water	15%	0%	3%	Yes
Little Hallingbury Marsh	8%	13%	6%	No – BOD deterioration remains at 11%
Sawbridgeworth Marsh	2%	12%	6%	Yes
Thorley Flood Pound	9%	13%	6%	No – BOD deterioration remains at 11%

The conclusions remain the same as in WAT 2. At two locations (Little Hallingbury Marsh SSSI and Thorley Flood Pound SSSI) deterioration could not be prevented, and the predicted deterioration in BOD remains at 11-12%. The concentration of BOD in the river at these sites remains at "High" class (which is the highest / best classification in the Water Framework Directive).

Both Little Hallingbury Marsh and Thorley Flood Pound are areas of lowland fen, marsh and swamp, and are currently in favourable condition (Natural England, 2016). These sites may be sensitive to changes in water quality in the river, however it is not certain whether a deterioration within the High class could have an impact on the condition of the SSSI. Further investigation may be required in consultation with NE to ensure that the condition

status of these sites is not affected, in-line with the requirements of the Wildlife and Countryside Act.

The majority of growth within the catchment of Bishops Stortford WwTW is from the East Hertfordshire District Council (1885 dwellings from Uttlesford and 17,377 dwellings from East Herts), and the water quality modelling has taken both growth forecasts into account. Engagement with East Hertfordshire District Council is therefore required in order to understand and mitigation the cumulative impact of their combined growth on the designated sites.

7 Conclusions

This technical note forms an addendum to the Stage 2 Water Cycle Study (WCS) for Uttlesford (WAT2), in relation to changes to the size and potential water/wastewater demand of three employment allocations:

- Land north of Takeley Street, Takeley
- Land south of A120/North of Stortford Road, Great Dunmow
- Land east of Shire Hill Farm and south of Radwinter Road, Saffron Walden

The potential impact of these allocations on water and wastewater systems, and on water quality have been retested with revised flow calculations. The conclusions are summarised below:

- **Water resources:** The increase in potential numbers of employees resulting from the revised employment allocation floorspaces results in a small change and does not, therefore, alter the conclusions of the Water Cycles Studies (WAT1 and WA2) with respect to the availability of water resources to serve the growth proposed in the Local Plan.
- **Water supply:** Affinity Water has not made allocation-specific comments for the WCS or at Reg 18 or 19 consultations. Therefore the conclusions of the Stage 2 WCS remains; "it is likely that upgrades to the water supply network will be required in order to serve the preferred allocations without a detriment to existing customers. Modelling by AfW may be required to define the extent of these upgrades."
- **Wastewater network:** Given the significant change in the estimate of employees at both Land north of Takeley Street, Takeley and Land south of A120/North of Stortford Road, Great Dunmow, it is recommended that Thames Water be consulted on the amended floorspace for this allocation. Land east of Shire Hill Farm and south of Radwinter Road, Saffron Walden only makes a small contribution to the increase in flows to be treated at Saffron Walden, therefore the conclusions in WAT2 remain valid for this allocation.
- **Wastewater treatment:** The conclusions from WAT2 remain the same:

- Planned growth draining to Bishops Stortford WwTW (including Land south of A120/North of Stortford Road, Great Dunmow) and Saffron Walden WwTW (including Land east of Shire Hill Farm and south of Radwinter Road Saffron Walden) are expected to exceed the capacity of these works, and upgrades and / or a change to permit limits may be required.
- Takeley WwTW has capacity to serve all planned growth, including Land north of Takeley Street, Takeley.

- **Water quality**: The same conclusions are drawn as in WAT2, namely that there is a potential that planned growth in the Takeley catchment would prevent the waterbody from reaching Good Ecological Status (GES) in the future. This risk could be avoided by transferring all planned development (or the equivalent wastewater flow) from the Takeley WwTW catchment into the Bishops Stortford WwTW catchment. The engineering feasibility of such a transfer has not been assessed. Adjusting the scale of development at Land north of Takeley Street, Takeley would not resolve this issue.
- **Environmental impacts**: As reported in WAT2, the cumulative development draining to Bishops Stortford WwTW could result in a deterioration of BOD at both Little Hallingbury Marsh SSSI and Thorley Flood Pound SSSI. The vast majority of planned growth in this catchment will be located within East Hertfordshire District.