James Bailey PLANNING

Document: Matter 4 Sustainable Communities and Environment

Title: Statement on behalf of Wellbeck Strategic Land III Ltd, Examination of the Greater Norwich Local Plan 2018-2038

Client: Wellbeck Land

Date: March 2023

Hearing Statement

Matter 4 Sustainable Communities and the environment

Statement on behalf of Welbeck Strategic Land III Limited in relation to Land North of Tuttles Lane East, Wymondham

Examination of the Greater Norwich Local Plan 2018-2038

March 2023

1. INTRODUCTION

1.1 On behalf of Welbeck Strategic Land III Limited (Welbeck Land), James Bailey Planning Ltd (JBPL) are instructed to submit Hearing Statements to the Greater Norwich Local Plan Examination (GNLP).

1.2 The site that these Statements relate to is "land North of Tuttles Lane East, Wymondham." This was previously assigned the site reference GNLP0006 and has been referred to as such in the course of our Hearing Statements.

1.3 The Regulation 18(c) GNLP document identified the town of Wymondham as having the need for a contingency of 1,000 dwellings. The site of land North of Tuttles Lane East was identified as a reasonable alternative site which could assist with this delivery. This proposal has subsequently been removed from the pre-submission version of the Local Plan.

1.4 The site area is 53.68ha, with a masterplan strategy for the delivery of 700 dwellings and associated infrastructure and land for a new sixth form centre for Wymondham High School.

1.5 It remains the view of Welbeck Land and JBPL that the GNLP is proposing a spatial growth strategy that is fundamentally flawed, and therefore "unsound." There is an over reliance on long standing strategic site proposals; there is a change in policy direction towards Village Clusters sites which remains unjustified; whilst there is a reduction in proposing development towards more sustainable locations, notably the GNLP's Main Towns.

1.6 Importantly, a Nutrient Neutrality (NN) assessment has been carried out for this site by the RPS Group, who are leading consultants in this new field. This has used the Natural England nutrient neutrality calculator, which has yielded a minimum housing figure the site can deliver. The RPS assessment for the site north of Tuttles Lane, Wymondham can be viewed in Appendix One.

Matter 4

1.7 This Hearing Statement has been prepared on behalf of our client Welbeck Land in respect of Matter 4 **Sustainable Communities and the environment** of the Inspector's Matters, Issues and Questions (MIQs) for the Examination of the Greater Norwich Local Plan.

1.8 The Statement is intended to assist the Inspector's review of the further questions raised in relation to Matter 4, which is due to be considered for further discussion at the Examination Hearing session on Tuesday 21st March 2023.

1.9 These Hearing Statements follow on from the representations made to the Regulation 19 Stage by JBPL, and to Regulation 18(c) Stage by Bidwells, on behalf of Welbeck Land. They should be referred to by the Inspectors during the course of the Examination.

<u>Issue 1</u> - Is Policy 2 justified, effective and consistent with national policy?

Question 16: Is the modification to Policy 2 suggested by the GNLP (in the Nutrient Neutrality Mitigation Statement of Common Ground with Natural England) justified, effective and consistent with national policy, the Written Ministerial Statement of 16th March 2022, and the evidence?

1.10 The main modification being proposed through the SoCG relates to section 10 of Policy 2 of the GNLP, which states:

Within the catchments of the River Wensum Special Area of Conservation (SAC), The Broads SAC and the Broadland Ramsar:

- *Residential development that results in an increase in the number of overnight accommodation and*
- *Non-residential development that, by virtue of its scale or type may draw people from outside the catchments of the SACs and/or generate unusual quantities of surface water and/or (by virtue of the processes undertaken) contain unusual pollutants within surface water run-off*

must provide sufficient evidence to enable the Local Planning Authority to conclude through a Habitats Regulations Assessment that the proposal will not adversely affect the integrity of sites in an unfavourable condition.

1.11 It is also suggested that supplementary text should also be included as an additional modification, explaining that the policy:

- *Applies to residential developments leading to an increase in overnight accommodation and non-residential development that, by virtue of its scale or type, may draw people from outside the catchments of the SACs and/or generate unusual quantities of surface water and/or (by virtue of the processes undertaken) contain unusual pollutants within surface water run-off as per the NE advice;*
- *Only applies to those parts of Greater Norwich affected by the WMS, as southern parts of South Norfolk and Broadland are not in the affected catchments. Maps of the river catchments will be included as an appendix to the plan;*
- *Ensures that relevant permissions will only be granted with necessary nutrient mitigation in place prior to occupation and in compliance with the Habitats Regulations;*
- *Requires evidence to be submitted to the local planning authority (as the competent authority) to show that on-site or off-site mitigation has been secured and will be implemented for relevant developments prior to their occupation;*
- *States that the requirement only applies whilst the protected habitat sites are in unfavourable condition.*

1.12 In nutrient neutrality areas, Natural England has produced calculators to allow developers to calculate the nutrient loads that must be mitigated by a new

development. These are catchment specific and are based on Natural England's generic methodology with local, catchment specific adaptations.

1.13 Natural England produced a nutrient calculator for the developments within The Broads Hydrological Catchment in March 2022 "The Natural England Calculator". In October 2022 the Norfolk Authorities released their own nutrient calculator "The Norfolk Calculator" as an alternative to the Natural England Calculator.

1.14 There is a difference between the Natural England Calculator and the Norfolk Calculator.

1.15 Natural England disputes the methodology used in The Norfolk Calculator, which has a reduced level of precaution in the nutrient budget calculation. Importantly, it also uses the figure of "1.88 people per household" in its calculations instead of the more recognised 2.4 people per household as is applied in the Natural England Calculator. The 1.88 figure remains unreferenced at present. Although Natural England does not intend to raise an objection to the Norfolk Authorities using The Norfolk Calculator, it does object to the use of tighter nutrient discharge limits for wastewater treatment works (WWTWs) to be introduced under the Levelling Up and Regeneration Bill as this bill has not yet passed through Parliament.

1.16 In its response to The Norfolk Calculator of 7th October 2022 (see Appendix Two), Natural England recommends that the Norfolk Authorities take legal advice to ensure their approach is "robust and not open to legal challenge". This calls into question the validity of The Norfolk Calculator. It may be exceedingly difficult for the Norfolk Authorities to defend the use of their calculator when in other nutrient neutrality areas, the Natural England nutrient calculator is being used.

1.17 In its response to The Norfolk Calculator, Natural England takes issue with several aspects of the methodology being used. This includes the occupancy figures being used, as well as water usage, and also the predicted levels of nutrients in WWTW discharge. It is also important to note the vast differences in nutrient export values from land use types between the two calculators. Nitrogen export values from open urban land for example are almost four times greater in the Natural England Calculator than in The Norfolk Calculator.

1.18 Differences in methodology between The Natural England Calculator and The Norfolk Calculator have a significant effect on calculated nutrient load. Therefore, how can developers be assured their nutrient mitigation strategies that are calculated using The Norfolk Calculator will be accepted, should the methodology behind the calculator face legal challenge? The Norfolk Authorities recommendation that The Norfolk Calculator be used, while there is still the prospect its methodology could be challenged legally, places the Authorities and developers in a very difficult position.

1.19 Welbeck Land have commissioned the RPS Group to undertake a specific calculator for their site north of Tuttles Lane east, Wymondham. It has contrasted both The Natural England Calculator and The Norfolk Calculator to provide 'minimum' housing figures that can be delivered on their site at Wymondham.

This ranges between 260 – 500 new dwellings. The full RPS Report is set out in Appendix One of this document. It is asked whether a similar comparison exercise been carried out for all of the sites being proposed in the GNLP, including those in the emerging Village Clusters document, and can nutrient neutrality be demonstrated for the same number of homes as is being portrayed in the GNLP? If it does not, then there is certainly going to be a shortfall of housing delivery at some point, which must clearly undermine the Plan.

1.20 It is clear the approach being taken by the Partnership is not fully consistent with the Written Ministerial Statement of 16th March 2022, and subsequent correspondence from Natural England. There is a less cautionary and more optimistic approach being applied through the use of the Norfolk Calculator. There is also a significant reliance on current 'unknowns', including: the future assessment of WWTWs; the results of Water Resources East consultation on their plan for the East of England[1] (which only ended in February 2023); mitigation strategies; and credit schemes. Therefore, there remains a genuine risk with bringing forward a premature Plan that may not physically be deliverable.

Question 17: Is the application of the Policy 2 as suggested to be modified in Q16 likely to affect the viability and deliverability of residential development in the plan area?

1.21 It would appear that the changes proposed to the wording of Policy 2 will certainly have the ability to affect the viability, and ultimately the deliverability of the residential development in the Plan area.

1.22 The onus, as is correct, is on the applicant to provide evidence to support their proposals. However, the concern is what is considered to "sufficient" evidence to provide to LPAs. This then feeds into a Habitats Regulation Assessment.

1.23 However, there remains uncertainty over:

1. how these assessments will be undertaken;
2. what experience or qualification is required to review these assessments by the LPA; and
3. the length of time any assessment by the LPAs may take.

1.24 Ultimately, it is considered this proposed wording will have direct impact on the Plan.

1.25 RPS have been considering the direct implications of the difference between the recent calculators, in relation to the Welbeck site at Wymondham (see Appendix One), and they have questioned some of the assumptions being used specifically for The Norfolk Calculator.

1.26 In The Natural England Calculator nutrient loads are assumed to be constant across the lifetime of the development. However, should the Levelling Up and

[1] https://wre.org.uk/ - the recent consultation only ended on 20th February 2023.

Regeneration Bill pass through Parliament, then (using the Welbeck Land Wymondham site as an example) the WWTWs to which the Wymondham development drains would have it permitted discharge lowered by 37% for total nitrogen and 32% for total phosphorous. In the case of a 700-home development at Wymondham, this would reduce the excess phosphorous load from the site by 97% and eliminate all excess nitrogen load.

1.27 Even if the Levelling Up and Regeneration Bill does not pass-through Parliament in its current form, there is a great deal of pressure on regulators and the Government to reduce nutrient discharge from WWTWs into watercourses. The assumption made by The Natural England calculator that nutrient discharge from WWTWs will remain at the same levels in perpetuity is unrealistic.

1.28 Should the Levelling Up and Regeneration Bill pass, or another Bill with similar implications for WWTWs, then the effect on nutrient loads could be so significant that nutrient mitigation may only be required until 2030. Considering this, has the Partnership considered temporary mitigation schemes, such as cessation on nutrient heavy farming practises to bridge this gap?

Question 18: Is the nutrient neutrality mitigation strategy likely to be successful in facilitating the delivery of the plan?

1.29 The answer to this question is unknown at present.

1.30 The work on nutrient neutrality remains ongoing, with a lot of collaboration between Natural England and LPAs being cited and joint ventures being proposed. Local solutions are being suggested, which is very positive.

1.31 There is also lots of discussion about 'nutrient credits' and how developers may be able to 'purchase' these, but as yet a scheme is not defined or set out.

1.32 There remains a serious lack of detail at the current time, with it being suggested that further reports will be available in summer 2023. It is therefore advised that it would be difficult to make important decisions in advance of this time.

1.33 There has been detailed research into off-site mitigation solutions and nutrient credit systems by Royal Haskoning DHV on behalf of Norfolk Local Authorities. However, a nutrient credit scheme for Norfolk remains undefined. This means developments such as that at Wymondham can be much more certain that nutrient neutrality requirements will be met as they do not wholly rely on off-site mitigation or nutrient offsetting schemes.

1.34 Under both The Norfolk Calculator and The Natural England Calculator there is a significant gap between the level of mitigation required for phosphorous and nitrogen neutrality. This gap would ideally be made up using nutrient offsetting schemes, however with such schemes being undefined and years away from being implemented in Norfolk, the number of houses that can be provided by developers will be limited significantly. This is demonstrated using the Welbeck Land site at Wymondham in Appendix One.

1.35 The significant unknown factors relating to the mitigation strategy for nutrient neutrality, means that it is unclear if there will be any impact on the direct delivery of the Plan.

1.36 Until a definitive mitigation strategy is agreed and set out, and any implications are known, then this must be considered a potential threat to the delivery of the Plan.

1.37 What is known is that the Partnership are suggesting that a significant proportion of their identified housing is anticipated to be delivered towards the end of the Plan period. In part, some of this is as a direct result of 'nutrient neutrality' and its effect on the deliverability of certain allocated sites. To balance this approach, it is therefore suggested that sites such as land north of Tuttles Lane east at Wymondham should be considered now as a viable and deliverable alternative site, as it can guarantee a certain amount of housing delivery during the early part of the Plan period, which is currently lacking. (See Appendix One for more details).

1.38 What is known for sure is that "*nutrient neutrality is one of the biggest challenges facing the home building industry and we cannot afford to wait until 2030 for a solution*" – Stewart Baseley, HBF's Executive Chairman.

1.39 There remains a genuine concern amongst the house building industry, and until there is a clear solution and pathway through this issue, then development in these areas must remain a risk. Uncertainty does not make for good planning, and therefore undermines any Plan making at this time.

March 2023
JBPL

James Bailey PLANNING

APPENDIX ONE: Wymondham Development Nutrient Neutrality Technical Note, RPS Group

MAKING COMPLEX EASY

A TETRA TECH COMPANY

WYMONDHAM DEVELOPMENT NUTRIENT NEUTRALITY

Technical Note

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28 February 2023

rpsgroup.com

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
01	Client Issue	C Rogers	Ola Holmstrom	Ola Holmstrom	25 Aug 2022
02	Updated Broads Calculator	C Rogers	Ola Holmstrom	Ola Holmstrom	22 Nov 2022
03	Updated Broads Calculator	B Kearsey	C Rogers	C Rogers	24 Feb 2023
04	Dual Calculator Approach	B Kearsey	Ola Holmstrom	Ola Holmstrom	1 March 2023

Approval for issue

Ola Holmstrom	Ola Holmstrom	1 March 2023

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Prepared for:

Welbeck Land

Contents

1 BACKGROUND

1.1 Welbeck Land are the promoters of a parcel of land situated immediately to the North of Wymondham, Norfolk with a potential for circa 700 units, a care home, a local centre a primary school and a sixth form centre. The initial concept master plan for this development is shown below:

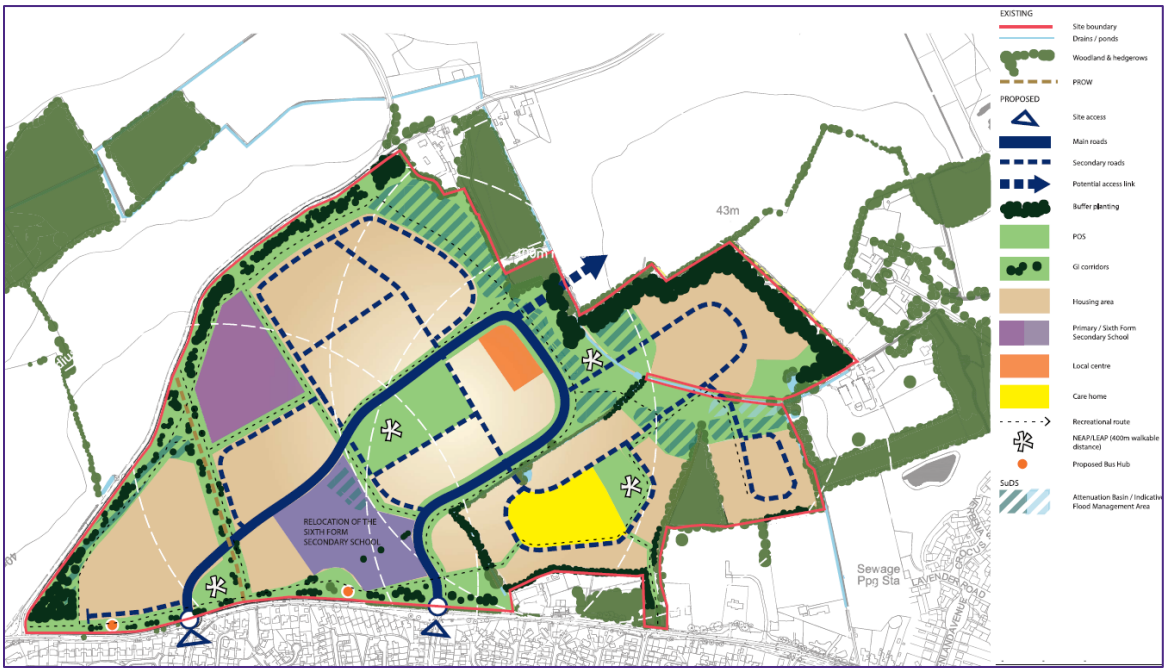

Figure 1 – Concept Master Plan

1.2 The site is located within the catchment of the Component SSSIs of The Broads SAC which are subject to Nutrient Neutrality restrictions due to their unfavourable condition. In freshwater habitats and estuaries, poor water quality due to nutrient enrichment from elevated nitrogen and phosphorus levels is one of the primary reasons for habitats sites being in unfavourable condition. Excessive levels of nutrients can cause the rapid growth of certain plants, and algal blooms through the process of eutrophication.

1.3 For this reason, Natural England, who are the main custodians for SPA and Ramsar sites, have issued guidance to local authorities that they expect new development to ensure that all new built assets can be brought forward without causing additional detrimental impacts to specific designated sites which in this case is The Broads SAC.

1.4 The Broads SAC has nutrient pressures from both Nitrogen and Phosphorus for which the site is in unfavourable condition.

1.5 The extent of the catchment is shown below in Figure 2.

Figure 2 - Extent of Nutrient Neutrality Area

1.6 The Nutrient Neutrality restrictions placed on Local Planning Authorities immediately delayed a significant number of applications across numerous authorities. To assist these authorities with this and in an aim to provide some clarity to the requirements, Natural England have provided guidance together with “Nutrient Calculators” which are catchment specific.

1.7 A specific calculator for the Broads SAC was prepared by Natural England and issued in March 2022. This calculator is referred to as “The Natural England Calculator”.

1.8 The Norfolk Authorities issued their own calculator in October 2022, referred to as “The Norfolk Calculator” this is based on the generic methodology used by Natural England Calculators, but varies greatly from the Natural England Calculator in the nutrient values it produces for developments.

1.9 Natural England dispute the validity of the methodology used by the Norfolk Calculator and recommends in a letter regarding the calculator issued in October 2022 that the Norfolk Authorities seek legal advice to ensure their approach is robust and not open to legal challenge.

2 NUTRIENT LOADING

2.1 The nutrient loading from new development is generated predominantly from the additional wastewater flows from residents with components from surface water runoff and drainage.

2.2 Both “The Natural England Calculator” and “The Norfolk Calculator” are used in this report as there is a legitimate question as to which one should be used for developments in Norfolk. The report compares results from both calculators and discusses the implications of both results for the proposed development at Wymondham.

2.3 The basis of both calculators is Natural England’s generic methodology for nutrient neutrality. which splits nutrient neutrality calculations into four stages:

1. Calculate the increase in nutrient loading that comes from a development’s wastewater using assumed occupancy figures, water consumption, and which treatment works wastewater from the development drains to.
2. Calculate the pre-existing nutrient load on the development site based on soil composition, catchment rainfall and current land use.
3. Calculate the future nutrient load from land use on the development site post-development.
4. Calculate the net change in nutrient loading from the development to the Broads SAC and Broadland Ramsar site with the addition of a twenty percent buffer. The net change in nutrient loading + the buffer is the nutrient budget.

2.4 The information below has been used to determine the nutrient loads that need to be mitigated for the proposed development in Wymondham:

- Wastewater will be treated at the Wymondham treatment works
- Existing land is predominantly cereal crop (based on aerial photos)
- New development is split into residential urban land, woodland, open urban land, and SuDS features.
- Units will have approximately 1.88 occupants in the case of The Norfolk Calculator, in line with Norfolk Council’s nutrient neutrality strategy, and 2.4 occupants in The Natural England Calculator in line with Natural England’s guidance.
- Water usage will be 100 litres per person, per day in the case of The Norfolk Calculator, inline with the Norfolk Authority’s methodology and 120 litres per person, per day for The Natural England Calculator in line with Natural England’s methodology.
- An additional 4.79ha of land next to the site will be converted from cereal agriculture to grassland.

2.5 The areas classified as residential urban land, SuDS and woodland have been calculated using the concept master plan. The footprint of each land use type is depicted in the map in figure 3.

2.6 The area designated for the primary school, sixth form centre and local centre have been classified as residential land for the purposes of nutrient load calculation as although they do not include new overnight accommodation, they will have a similar overall wastewater footprint as residential land.

2.7 Remaining site area has been designated “open urban land”; this category includes open areas of managed grass such as sports fields and play areas. Two small areas of woodland which will have unaffected by the development have been discounted from the analysis.

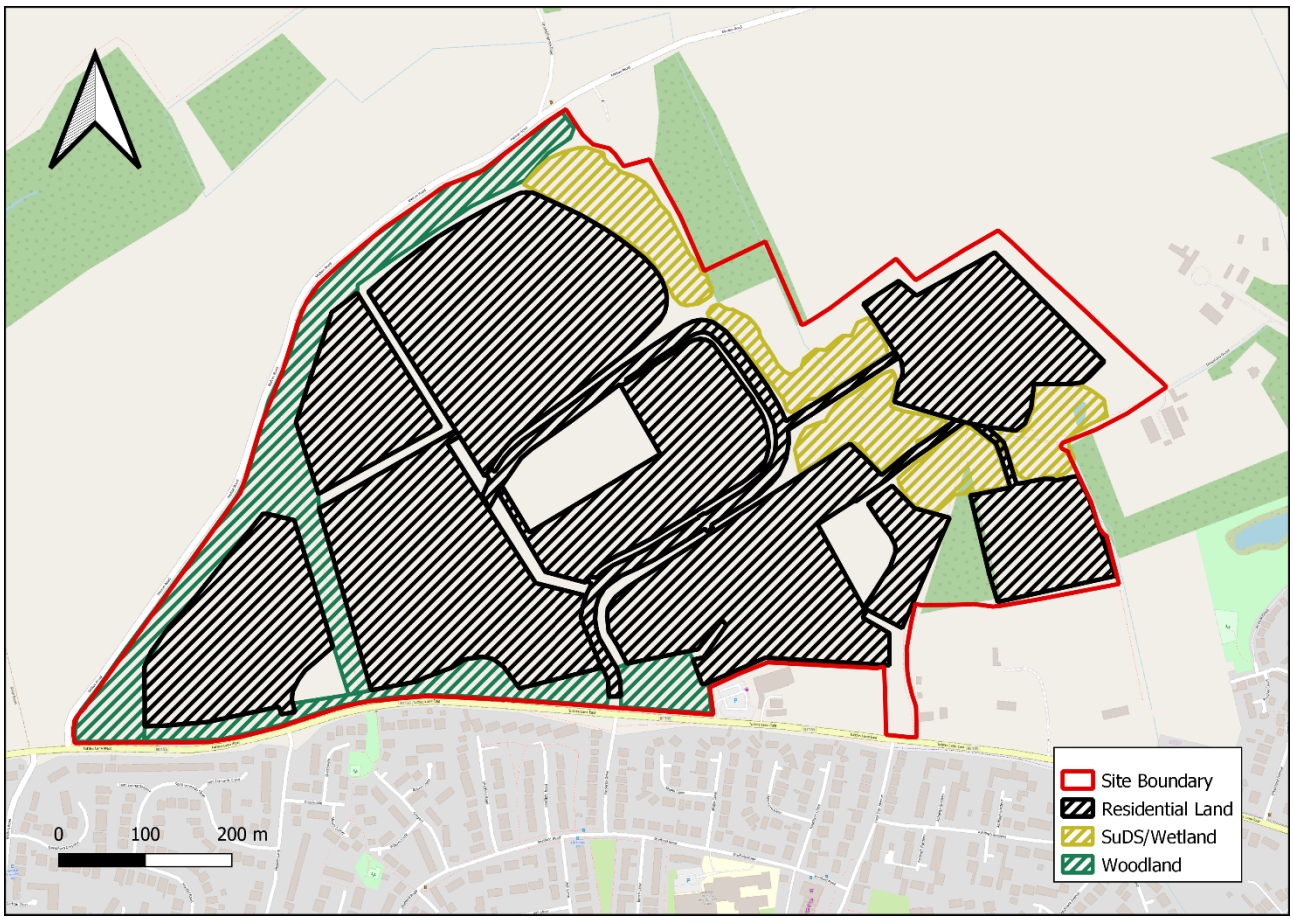

Figure 3 - Land Use After Development at Wymondham

3 NUTRIENT BALANCE

3.1 The Nutrient Calculators have been used to determine if there is an excess of nutrient to be mitigated as part of the development which is classed as the baseline. Once the baseline position has been determined in both cases, options have been considered to mitigate this based on the location and available land.

3.2 The two calculators covering The Broads SAC differ greatly in terms of figures used for occupancy and water usage and in how the two calculators approach future changes to nutrient discharge from wastewater treatment works (WWTWs).

3.3 Natural England does not plan to raise objections to The Norfolk Calculator's occupancy and water use figures but does object to The Calculator's approach to future regulations on WWTWs.

3.4 Natural England's response to The Norfolk Calculator does not mention the difference in Nutrient Export Values for land use types between the calculators even though this has a major influence on the final nutrient load calculation. Differences in these values for urban land between the two calculators are detailed below:

Table 1 - Nutrient Export Values for 1ha of Land at Wymondham

Land Use	The Natural England Calculator		The Norfolk Calculator	
	TP (kg/yr)	TN (kg/yr)	TP (kg/yr)	TN (kg/yr)
Residential Urban	1.27	11.82	0.36	5.49
Open Urban	0.68	6.97	0.01	1.82

3.5 Other methodology differences between The Natural England calculator and The Norfolk Calculator are summarised in the table below:

Table 2 - Key Differences Between Natural England and Norfolk Nutrient Calculators

Parameter	The Natural England Calculator	The Norfolk Calculator
Occupancy Rates	Occupancy rate of 2.4 based on national average from census data.	Occupancy rate of 1.88, the origin of this figure is unclear as detailed evidence has not been referenced
Water Usage*	Rate of 120L/pp/day based on the average for building regulations with a 20L/pp/day buffer.	Rate of 100L/pp/pd based on average for building regulations without precautionary buffer applied.
WWTW Discharge Concentrations	Based on current nutrient discharge levels for specific WWTWs in Norfolk with no provision for future tightening of discharge levels.	Based on current nutrient discharge levels for specific WWTWs in Norfolk with a provision for post 2030 tightening of discharge levels set out in the proposed Levelling Up and Regeneration Bill.
Mitigation Calculator	Does not include a mitigation calculator, negative nutrient loads are displayed as zero	Incudes a mitigation calculator, negative nutrient loads are displayed.
Nutrient Export Values for Specific Land Use Types	Export values as set out in Natural England's Generic Methodology.	Export values differ significantly from those in the Natural England Calculator, the justification for this difference is not clear.

*The regional Water Resources Flan for Eastern England has set a target consumption of 110L/pp/day by 2050

3.6 The original masterplan for the Wymondham development was conceived before nutrient neutrality regulations came into place in Norfolk. The number of dwellings (700) in the original concept master plan was therefore based on pre-nutrient neutrality considerations.

3.7 Reducing the number of dwellings both reduces the nutrient load due to lower levels of wastewater and runoff produced by the development, and a smaller share of land being taken up by urban land.

3.8 Nutrient load values for different development sizes at Wymondham under the two nutrient neutrality methodologies are presented in the table below, with the point of nutrient neutrality highlighted in green:

Table 3 - Nutrient Load Values for Varying Development Sizes at Wymondham

	Natural England Calculator		Norfolk Calculator	
Dwellings	TP Load (kg/yr)	TN Load (kg/yr)	TP Load (kg/yr)	TN Load (kg/yr)
700	66.21	922.82	11.49	76.99
600	51.04	600.1	4.78	0
500	35.86	277.24	0	0
400	20.69	0	0	0
300	5.51	0	0	0
260	0	0	0	0
200	0	0	0	0

3.9 This analysis demonstrates that a development at Wymondham can be nutrient neutral with 260 dwellings under the Natural England Calculator and 500 dwellings under the Norfolk Calculator.

3.10 Site specific options have been investigated to determine if there are reasonable methods to offset these nutrients, the common ones being the provision of an engineered wetland to remove nutrients. At Wymondham there currently does not appear to be a watercourse large enough to remove all of the required nutrients for circa 700 units, with 5 ha of land being available for mitigation purposes.

3.11 There could be off site options investigated to remove nutrient from the watercourse downstream of the Wymondham wastewater treatment works but this would require the acquisition of further land which would bring further costs and constraints. An alternative could be an investigation into the opportunity to purchase Nutrient Credits to offset this load.

3.12 The above results show that a nutrient neutral development at Wymondham can be delivered without the need for further offsite mitigation or the use of a nutrient credit scheme. The number of dwellings that can be delivered varies greatly between calculator methodologies, between 260 and 500

Further Options

3.13 Nutrient load generated by the Wymondham development could also be controlled by reducing per capita water consumption. Although reducing water consumption has little effect on nutrient levels from wastewater, a more concentrated load is easier to treat, this is accounted for in both calculators.

3.14 Water saving measures in residential developments can include:

- Grey-water recycling systems, where water from sinks, washing machines and showers is re-used to flush toilets and for outdoor taps.
- Rainwater harvesting systems.
- More advanced systems such as pressure assisted toilets.

3.15 Natural England's calculators are generally strict on the use of reduced water consumption figures, so any plan to utilise water saving measures would need to be evidence based and robust.

3.16 Water saving plans are often more defensible in rental stock where tenants are not usually permitted to change fittings, they are however still possible in other types of housing stock.

Offsite Offsetting

3.17 In July 2022 the UK Government issued further information about Nutrient Neutrality and steps to be taken to assist with the delivery of mitigation schemes to help development to proceed. The Government accepted that mitigation schemes will be necessary to permit further development such as this at Wymondham.

3.18 The Government issued a ministerial statement from the Secretary of State for Environment Food and Rural Affairs on 20th July 2022. This set out that the Government will:

- Place a legal duty on water companies to upgrade wastewater treatment works by 2030 in nutrient neutrality areas
- Require Natural England to establish and deliver a Nutrient Mitigation Scheme.

3.19 The above announcements mean that there should be several mitigation schemes that developers can buy credits to mitigate against increased nutrient discharges and that in the fullness of time the level of nutrients discharged from wastewater treatment works will decrease.

3.20 The timing of these credits is crucial for developments, the development of nutrient credit schemes in Norfolk is progressing slowly with the nature of the schemes being undefined at this stage, this contrasts with other nutrient neutrality areas where council owned and privately owned nutrient credit schemes are well established.

4 SUMMARY

4.1 The proposed development at Wymondham is situated within a Nutrient Neutrality catchment susceptible to both Phosphorous and Nitrogen.

4.2 Unlike with other local authorities in nutrient neutrality areas, the Norfolk Authorities have issued their own bespoke nutrient calculator, the methodology of this calculator differs from the relevant Natural England calculator leaving developers with uncertainty over which calculator produces more valid nutrient load values. Differences between the two calculators are detailed briefly below:

- Occupancy rates vary greatly between calculators with The Natural England Calculator using the national average rate of 2.4 and The Norfolk Calculator using a rate of 1.88, the source of which is not given in the guidance.
- Water usage rates vary greatly between calculator with a 20% precautionary buffer applied to water use rates in the Natural England Generic Methodology not being carried over to The Norfolk Calculator. This reason for the omission of the buffer is unclear.
- The Norfolk Calculator includes a provision for tightening of WWTW nutrient discharge levels after 2030 as a part of the Levelling Up and Regeneration Bill, which has yet to pass though parliament. The Natural England Calculator unrealistically assumes that nutrient discharge rates will remain as they are today in perpetuity.
- The Norfolk Calculator provides a sub-calculator for determining the effectiveness of mitigation strategies, whereas The Natural England Calculator does not provide mitigation calculations and where the calculated nutrient load is negative, this is displayed as zero.
- Nutrient export values from land use types differ greatly between calculators, it is not clear why values in The Norfolk Calculator differ from Natural England's Generic Methodology.

4.3 Analysis of nutrient loads at Wymondham have demonstrated that under the methodology of the Natural England calculator a development including 260 dwellings at Wymondham can demonstrate nutrient neutrality, this figure rises to 500 dwellings under the methodology of the Norfolk Calculator.

4.4 Natural England disputes the validity of some parts of the methodology used by "The Norfolk Calculator" and has advised that the Norfolk Authorities seek legal advice on its use for planning.

4.5 The proposed development at Wymondham can still be delivered at a more realistic scale while demonstrating nutrient neutrality. With further master-planning and the use of offsite nutrient mitigation, the size of the development could be increased.

4.6 A more detailed study would be required to support the development of the scheme through the planning process.

James Bailey PLANNING

APPENDIX TWO:Natural England Response to Norfolk Calculator 7th October 2022

7 Oct 2022

Our ref: Norfolk Nutrient calculator response

Dragonfly House
2 Gilders Way
Norwich NR3 1UB

FAO: Heads Planning, Development Management and Planning Policy

By email only

Dear Sir/Madam

Consultation: Norfolk Nutrient Budget Calculator (Developed by Norfolk LPAs and Royal Haskoning)

Thank you for your email of 23 September from Trevor Wiggett, consulting Natural England on the nutrient budget calculator that the Norfolk Authorities have developed with support from Royal Haskoning, hereafter referred to as the 'Norfolk calculator'.

Natural England notes that the approach adopted in the Norfolk calculator is broadly consistent with that which underpins the Natural England nutrient budget calculator. This response therefore focusses on the elements of the Norfolk calculator for which a different approach, or different figures have been used.

Following a review of the information shared with Natural England, there are three elements of the Norfolk calculator where the approach differs from that in the Natural England calculator:

1. Occupancy rates
2. Water usage
3. WwTW discharge concentrations

Detailed comments and advice regarding the three aforementioned elements are set out below.

Occupancy rates:

As set out in the Natural England Nutrient Neutral Generic Methodology and the Natural England Calculator Guidance document; "Competent authorities must satisfy themselves that the residents per dwelling/unit value used in this step of the calculation reflects local conditions in their area. The residents per dwelling value can be derived from national data providing it reflects local conditions. However, if national data does not yield a residents per dwelling/unit value that reflects local occupancy levels then locally relevant data should be used instead. Whichever figure is used, it is important to ensure it is sufficiently robust and appropriate for the project being assessed."

The Norfolk calculator also includes a separate occupancy rate for houses with multiple occupancy (HMO) and for hotels/guest houses to be used when there is development with an additional number of rooms above six residents. For hotels/guesthouse developments, the calculator additionally allows for a bespoke

figure of number of weeks occupied per year and an average occupancy rate (0-100%). There is no information in the ORS report to explain how these figures have been derived, or to support using a different occupancy rate for HMOs/tourist accommodation. The Royal Haskoning report indicates that the average occupancy rate for hotels and HMOs comes from the Dorset Heaths SPD. This SPD specifies a 1.65 occupancy rate for 'flats' but with no detailed information as to how this has been derived.

Natural England would advise that suitable provisions should be put in place to ensure that should hotels/guesthouses revert to residential accommodation in the future, there is a mechanism to assess the potential for any resulting change in nutrient load. We would further advise that the number of weeks per year use, and average occupancy of hotels and tourism accommodation should be adequately evidenced to provide the necessary certainty required for Appropriate Assessment.

Natural England therefore support the use of locally relevant data to derive an appropriate occupancy figure for Norfolk. The Norfolk Authorities, as competent authority must be satisfied that the evidence underpinning the occupancy rate in the Norfolk calculator is sufficiently robust and appropriate. We would recommend that project level Appropriate Assessments which are informed by the Norfolk calculator specifically include justification for why the competent authority has decided upon the occupancy rate that has been used.

We would also recommend the Norfolk Authorities review the comments made by Justice Jay at the High Court in the Wyatt v Fareham Judicial Review, regarding the use of occupancy rates which are appropriate to the type of development being permitted.

Water Usage:

The Natural England methodology and calculator recommends the addition of 10 litres per person, per day to the Building Regulations standard being applied to the planning permission (e.g. 110 litres per person, per day). The Norfolk calculator has removed this additional 10 litres per person, per day and relies on the Building Regulations standard which is secured as part of the planning permission.

The Norfolk Authorities have referenced a study to support the removal of the additional 10 litres per person, per day. It is noted that this study is of homes built to the 125 litres per person, per day standard, rather than 110 litres. We would highlight that Natural England's methodology was informed by the analysis by Waterwise of homes in London built to a stricter 105 l/person/day under the Code for Sustainable Homes which showed that actual water usage ranged between 110 to 140.75 litres per person, per day, depending on the occupancy rates (https://www.waterwise.org.uk/knowledge-base/advice-on-water-efficient-new-homes-for-england-september-2018/).

Natural England advise that the removal of the additional 10 litres per person, per day makes the Norfolk calculator less precautionary than the approach set out in the Natural England methodology, and the Natural England calculator.

WwTW discharge concentrations:

The Norfolk calculator uses a hybrid approach of retaining the Natural England methodology for Waste-water Treatment Works (WwTW) with high levels of anticipated new connections, and current discharge concentrations with an additional precautionary uplift for WwTW with lower levels of anticipated new connections.

Water companies can increase the concentration of nutrients in the waste-water discharged from WwTW up to the level set in their Environment Agency permit without the requirement for any new consent or consultation. Therefore, the Norfolk Authorities must be satisfied that the figures used in the Norfolk calculator do not risk underestimating the nutrient load of new development connecting to WwTW with lower levels of anticipated growth. It is important to recognise that when undertaking an Appropriate Assessment, potential impacts need to be considered over the lifetime of the development proposal.

For WwTW which do not benefit from a discharge permit with a defined maximum nutrient concentration, the Norfolk calculator uses 6mg/litre for Total Phosphorus, and 25mg/litre for Total Nitrogen. We note that these are the national average values used by the Environment Agency for their planning purposes.

However, as these values represent the national average, there will be a variation in WwTW performance with some performing better, and others worse than this figure.

Natural England advise that the reduction (by 2mg/litre) in the values used in the Norfolk calculator for WwTW without a defined maximum nutrient concentration makes the Norfolk calculator less precautionary than the approach set out in the Natural England methodology, and the Natural England calculator.

The Norfolk calculator includes future discharge concentration values for WwTW which have upgrades planned as part of the Periodic Review (PR) process. This is consistent with the approach set out in the Natural England methodology, and the approach taken for the Natural England calculator. The Norfolk calculator also incorporates the Technically Achievable Limit (TAL) figure from 2030 (0.25mg/litre for Phosphorus and 10mg/litre for Nitrogen) which was announced as a requirement for water companies in nutrient neutrality areas by Defra Secretary of State in July 2022.

The announced requirement for water companies to achieve TAL will be legislated through the Levelling-up and Regeneration Bill. Natural England advise that until the Bill receives Royal Assent the requirement for TAL cannot be considered certain. We recommend that the pre-2030 figure is used to determine the mitigation requirement for new development until the legislation securing the requirement for water companies to achieve TAL is in place.

Summary of Natural England's Advice

As set out above, Natural England considers the Norfolk calculator to have reduced the level of precaution in the nutrient budget calculation in comparison to the methodology and calculator we have produced. A reduction in the level of precaution in the nutrient budget calculation will have a corresponding increase in the potential for the mitigation delivered to be insufficient to fully address the potential for adverse effect to the Broads SAC, and River Wensum SAC.

Natural England accepts that it is the decision of the Norfolk Authorities, as Competent Authority to determine the approach (and associated calculations) taken to Appropriate Assessment of new development proposals. We therefore recommend that the Authorities take legal advice to ensure the approach taken to inform Appropriate Assessment of new development proposals is robust and not open to legal challenge.

Natural England do not intend to raise objection to the Norfolk Authorities using the Norfolk calculator to inform their Appropriate Assessments, other than the specific inclusion of the TAL figure for WwTW from 2030 onwards. As highlighted, the 2030 upgrades are not yet in legislation and therefore cannot be considered sufficiently certain to form the basis of a nutrient budget for new development proposals. Therefore, any Appropriate Assessment which relies on these figures, in advance of the relevant legislation being in place, would lead to an objection by Natural England.

Consultation responses to Appropriate Assessments relating to nutrient neutrality, which do not rely on the TAL figure from 2030 will include the following advice from Natural England:

Natural England notes that the Authority's own calculator has been used to calculate the nutrient budget for this application. This calculator deviates from the Natural England nutrient neutral methodology. As set out in our letter dated 7 Oct 2022 your Authority must be satisfied that the calculator is based on robust evidence and takes a suitably precautionary approach.

I hope this information is helpful, please contact my colleague Helen Dixon in the first instance if you wish to discuss further helen.dixon@naturalengland.org.uk

Yours faithfully

Simon Thompson
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