CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017

Habitat Regulations Assessment (HRA) Screening Matrix

IMPORTANT NOTE: Undertaking the HRA process is the responsibility of the decision maker as the Competent Authority for the purpose of the Habitats Regulations. However, it is the responsibility of the applicant to provide the Competent Authority with the information required to complete this process.
Article 6(3) of the Habitats Directive requires that where a "plan or project" is likely to have a significant effect on an SPA or SAC, the relevant authority must undertake an "appropriate assessment" to assess if it is considered likely to have a significant effect on a protected habitats site in view of its conservation objectives and, if there is such an impact, whether that impact can be adequately mitigated. Article 6(3) is a two-stage process that begins with (1) a screening assessment on whether a plan or project is likely to have a significant effect on the protected site; (2) If a significant effect is likely, an AA is required to determine the plan or project's implications for the site in view of the site's conservation objectives. The screening assessment should be undertaken prior to the consideration of any mitigation measures, and should not take account of any mitigation measures that would fall under Art 6 of the Habitats Directive

Application Number:	**19/504724/HYBRID**
Application address:	Land Off Old Ashford Road Lenham Maidstone
Proposal:	Hybrid application: (i) Outline application (all matters reserved except for access) for up to 100 dwellings with incidental open space, equipped play area, sports pavilion and related car park (with various off site Highways works) with or without associated wetland scheme for nutrient reduction (ii) Full application for change of use of agricultural land for public sports and recreation including at least 1 Senior Football Pitch.
HRA:	The above application forms part of the broad location at Lenham which is allocated for approx. 85 dwellings and a scheme of Open Space within the Lenham Neighbourhood Plan as "Strategic Housing Delivery Site No.1"
Background:	The planning application was submitted to Maidstone Borough Council on 18.09.2019. A resolution to grant planning permission subject to a s106 legal agreement was made on 01.05.20. Subsequently in June 2020, Natural England wrote to affected LPAs and in July 2020 issued '*Advice on Nutrient Neutrality for New Development in the Stour Catchment in Relation to Stodmarsh Designated Sites - For Local Planning Authorities*' which was subsequently revised in November 2020. As a pending

	application at that time, the HRA process needs to be followed before a determination can proceed on 19/504724/HYBRID. In August 2021, the applicant indicated that a wetland mitigation scheme would be proposed to achieve Nutrient Neutrality. In February 2025, the applicant proposed an option of securing credits from Stodmarsh Stream Enhancement scheme by Dace Environmental Limited and Greenshank Environmental Limited. In April 2025, the applicant confirmed they would be able to secure fallowing of agricultural land to 2030 for extra temporary credits.
Lead Planning Officer:	Marion Geary
HRA (Screening) Date:	February 2022

Part 1 – Details of the plan or project	
European site or sites potentially impacted by planning application, plan or project (delete as appropriate):	• Stodmarsh Special Protection Area • Stodmarsh Special Area of Conservation • Stodmarsh Ramsar Site
Is the planning application directly connected to the management of the site?	No

Part 2 – HRA Screening Assessment

Screening under Regulation 63(1)(a) of the Habitats Regulations – A judgement to be made as to whether there could be any potential significant impacts of the development on the integrity of the SPA/Ramsar site.

The Stodmarsh SAC has been designated under the EU Habitats Directive for the presence of the habitats listed in Annex II of the Directive.

The Stodmarsh SPA is designated under the EU Habitats Directive by supporting the following Annex II species protected under Article 4.4 of the Directive.

- Desmoulin's whorl snail *Vertigo moulinsiana*

The Stodmarsh SPA is designated under the EU Birds Directive for supporting nationally important wintering populations of the following Annex I species protected under Article 4.1 of the Directive.

- Bittern *Botaurus stellaris*
- Hen Harrier *Circus cyaneus*

The area also qualifies under Article 4.2 of the EU Birds Directive by supporting nationally important wintering populations of the following migratory species:

- Gadwall Anas sterera
- Shoveler Anas clypeata

The area also qualifies under Article 4.2 of the EU Birds Directive by regularly supporting an important assemblage of breeding species associated with wetland habitat.

The area also qualifies under Article 4.2 of the EU Birds Directive by regularly supporting an important assemblage of wintering waterfowl.

Stodmarsh SAC, SPA and Ramsar is located approximately 20km to the east of the application site. However, the site is within the operational catchment of the Upper Stour and so nitrogen and phosphorus arising from the development's wastewater would drain into it causing eutrophication at part of these designated sites. Hence, there would be impacts on nationally and internationally important wildlife sites in the Stour Valley arising from excessive nutrients from wastewater discharge. Natural England is aiming to achieve "nutrient neutrality" from all types of new development that result in a net increase in population served by a wastewater system.

In relation to the consideration of the potential likely significant effects on the Stodmarsh designations as a result of the proposed project, the following have been considered:

- Water quality and quantity

Water quality and quantity: The Application Site is situated on valley slopes above the Great Stour River, upstream from and 20km to the west of the international site. Surface water would drain from the site via an attenuation pond to discharge to a watercourse and then pass into the Great Stour River floodplain. Changes in run-off from the strategic site as a result of the change of use from agricultural to urban land could therefore affect the quality and quantity of water reaching the downstream SPA, SAC and Ramsar site. The nitrogen/ phosphorus load from the new urban development results from sewer overflows and from drainage that picks up nutrient sources on the urban land. Urban development includes the built form, gardens, road verges and small areas of open space within the urban fabric and the sports pitches and associated development. These nutrient sources include atmospheric deposition, pet waste, fertilisation of lawns, sports fields and gardens and inputs to surface water sewers. The development includes Open Space and Green Infrastructure which would also result in nitrogen and phosphorus leaching. Such changes to water quality or flow regime along this vector could result in potentially irreversible deleterious effects on highly sensitive aquatic fauna and flora within Stodmarsh.

Once the site is operational, foul sewage from a site in this part of Lenham would ordinarily be connected to the Wastewater Treatment Works at Lenham, which is located upstream from Stodmarsh and eventually discharges into it and could result in potentially irreversible deleterious effects on highly sensitive aquatic fauna and flora within Stodmarsh.

Therefore, the proposed development will have a likely significant harmful impact upon water quality and quantity within the designated site as a result of its generation of waste water.

Are there any other plans or projects that together with the planning application being assessed could result in a likely significant effect on	Yes. All new planned development that could lead to surface water run-off into the River Stour or discharge foul drainage via a Package Treatment

the site when considered in-combination?	Plant, Septic Tank or WWTW within the River Stour catchment could combine to have a likely significant effect on the Stodmarsh SAC SPA and Ramsar.
Would the proposal lead to a likely significant effect on the European sites, without mitigation measures either alone or in-combination?	YES (if yes, continue to Appropriate Assessment)
Conclusion: The above screening concludes that an Appropriate Assessment should be carried out by the LPA. The AA would take account of any mitigation measures under Art 6(4) (Reg. 64) and assess if impacts will be adequately mitigated. Consent can only be granted when the HRA concludes no adverse effects. Natural England will be consulted and regard will be taken of their advice.	

Part 3 – Appropriate Assessment

Appropriate Assessment under Regulation 63(1) – if there are any potential significant impacts, the Applicant should provide evidence showing avoidance and/or mitigation measures. The Applicant should also provide details which demonstrate any long-term management, maintenance and funding of any solution.

There is a potential pathway for contamination in relation to: Stodmarsh SAC/SPA/Ramsar as a result of water quality and including surface water and foul water and these need to be tested at the Appropriate Assessment stage.

Water Quality - Appropriate Assessment - Stodmarsh SAC/SPA/RAMSAR

The site is within the catchment for Great Stour and so given the increase in the residential overnight accommodation that this development proposes, an Appropriate Assessment is required in accordance with the Conservation of Habitats and Species Regulations 2017.

The development is up to 100 residential units and change of use agricultural land for public sports and recreation. The site will also include play space, amenity open space, semi–natural open space, attenuation ponds for surface water drainage plus sports pavilion and related car park. The scheme include an option for a wetland on nearby farmland for NN mitigation.

The HRA will consider 2 options. One for a wetland which makes the site area 13.56 ha, the second omits the wetland so the site area is 11.66ha.

The HRA will also consider pre 2030 mitigation and post 2030 mitigation. This is because permit levels for Lenham WWTW will reduce in 2030, so more of the mitigation for phosphorus will thereafter be carried out by the water companies themselves. The permit limits will be 0.5 mg TP/litre until 2030 and 0.25 mg TP/litre afterwards.

1. Surface water

The drainage type is "freely draining". The average rainfall of the locality is 700.1-750mm per annum.

The land appears to have been arable crops.

The definition of open space can fall into one of 4 categories based on NE guidance:

- Greenspace is defined as: Natural and semi-natural outdoor spaces provided for recreational use where fertilisers will not be applied and dog waste is managed. Green infrastructure within the built urban environment, such as sports fields, gardens, or grass verges, as these are included in the residential urban land category.
- Woodland: Natural and semi-natural outdoor wooded areas.
- Shrub: Natural and semi-natural outdoor shrubland area.
- Open urban land: Area of land in urban areas used for various purposes, e.g. leisure and recreation - may include open land, e.g. sports fields, playgrounds, public squares or built facilities such as sports centres.

As per **Appendix 1,** the land use split is considered to be:

South of Ashford Road (was 11.66 ha arable cereal)
5.58 ha Greenspace
3.2 ha Residential urban land (with SW drainage to SuDS)
0.45 ha car park/pavilion (Open Urban Land) ((with SW drainage to SuDS)
0.12 ha play area (Open Urban Land)
2.13 ha Sports fields (Open Urban Land)
0.18 ha Water

Off site wetland south of Old Ashford Road (was 1.9 ha arable grazing)
1.34 Water
0.56 Greenspace

Based on the NE Guidance 2024, 'Residential Urban Land' is the most polluting of the proposed land uses, 'Greenspace' has lesser rates of pollution and 'Water' as a land use does not pollute at all.

2. Foul water and wastewater treatment

The proposed 100 units of overnight accommodation will increase associated wastewater to be discharged to a tributary of the Great Stour River via Lenham WWTW.

a) Incorporation of water efficiency measures to ensure water consumption is 110l/day/person.
Permanent water saving techniques and technologies would need to be incorporated to ensure that the average water consumption is 110 litres per person per day (lpppd) to minimise the flow of foul/waste water leaving the site, meeting the "optional requirement" of part G2 of the UK Building Regulations. Ongoing management and efficacy of these measures would need to be secured. The budget calculator assumes a 10 lpppd contingency so 120 lpppd is entered into the calculator.

b) Foul water loads (see Appendices 2 and 3)

Pre 2030 (100 units)	Wetland included (site area 13.56ha)	No Wetland (site area 11.66ha)
Phosphorus kg/year	4.73	4.73
Nitrogen kg/year	284.02	284.02

c) Land Use Change (see Appendices 2 and 3)
Using the latest 2024 NE matrix, the total nutrient load from the proposed land use change:

Pre 2030 (100 units)	Wetland (site area 13.56ha)			No Wetland (site area 11.66ha)		
	Existing Uses	Future Uses		Existing Uses	Future Uses	
Phosphorus kg/year	2.24	6.87		1.93	6.85	
Nitrogen kg/year	422.81	83.15		363.56	81.47	

d) SuDS mitigation (see Appendix 2)
The calculator includes a deduction for natural removal of nutrients from the Sustainable Drainage System (SuDS) system which is a detention basin with sediment forebay. The applicant states that 65% of the flow from 3.17ha of residential urban land (100 unit scheme) and 65% of the flow from 0.45ha of car park/pavilion will enter the SuDS system. The calculation is that removes:

Pre 2030 (100 units)	**Wetland**	**No wetland**
Phosphorus kg/year	-0.39	-0.39
Nitrogen kg/year	-9.13	-9.13

e) Total mitigation required pre 2030 incl 20% buffer (see Appendices 2 and 3)

Pre 2030 (100 units)	**Wetland**	**No wetland**
Phosphorus kg/year	10.76	11.13
Nitrogen kg/year	n/a	n/a

f) Post 2030 Total mitigation required incl 20% buffer (see Appendices 2 and 3)

Post 2030 (100 units)	**Wetland**	**No wetland**
Phosphorus kg/year	7.93	8.29
Nitrogen kg/year	n/a	n/a

Mitigation

No mitigation is needed for nitrogen because the land use change away from cereals is adequate in itself due to the cessation of high levels of fertiliser use.

Mitigation to 2030 is needed for Phosphorus in the order of 10.76 kg/yr with the wetland option and 11.13kg/yr without the wetland option.

Mitigation post 2030 is needed for Phosphorus in the order of 7.93 kg/yr with the wetland option and 8.29 kg/yr without the wetland option.

The mitigation for Phosphorus offered by the applicant for the wetland inclusive option is 20.01 kg/yr assuming it removes 30kg/ha/yr, a figure Natural England endorse. This is on the basis of the size of the wetland being 1.34ha, with half of that area covered by the floating reed modules.

The calculation is 30 kg/yr x 1.34 ha x 0.5= 20.01 kg/ha/yr.

The applicant considers no further contingency is necessary to this figure of 20.01kg/ha/yr and it adequately exceeds the phosphorus load from the development before and after 2030.

Natural England disagree in terms of the pre 2030 situation as they say they need to have confidence on the site-specific percentage uptake rate of phosphorus removal. They have calculated that the water flow through the wetland would comprise approx. 35.7kg/yr of phosphorus.

A required uptake of 10.76 kg/year pre 2030 by the wetland would mean a minimum rate of removal of 30%.

A required uptake of 7.93 kg/year post 2030 by the wetland would mean a minimum rate of removal of 22%.

To accord with the precautionary principle, Natural England suggest that post development surveys be undertaken to ascertain if a 30% level of removal is achieved in actuality. Should the uptake rate be less, temporary credits will need to be secured to make up the difference.

Should the wetland option not be taken, the developer will need to demonstrate adequate credits up to 11.13 kg/ha/yr to 2030 and up to 8.29 kg/ha/yr post 2030 have been secured from an alternative source, eg the Stodmarsh Stream Enhancement Scheme.

Conclusion

There will be adequately mitigated loads of nitrogen in all scenarios due to the land use change away from cereal cropping and the consequent cessation of nitrogen fertiliser use.

Assuming uptake rates of 30%, the wetland as proposed will adequately mitigate phosphorus as it is envisaged to remove at least 10.76 kg TP/yr. However, because uptake rates may be lower in actuality than that assumed rate, Natural England advise it will be necessary to secure real life monitoring to give the level of certainty that the Habitats Regulations require.

Should uptake rates be lower than necessary, the developer will need to provide additional mitigation. The expectation is that the extra mitigation would be temporary because after this date, wastewater treatment works serving Lenham are required to be improved to deal with significantly more of the phosphorus pollutants than they do currently.

The applicant has therefore offered scope for additional mitigation from fallowing of cereal land by the landowner. The amount of land that would need to be fallowed cannot be calculated at this point in time because it depends on the results of the future monitoring. However, the nutrient budget calculator for this locality indicates that fallowing of cereal land to fallow ("greenspace") will generate temporary credits of 0.15kg TP/ha/yr. The landowner has stated in writing that there is sufficient cereal land in the Stour catchment under his control to supply sufficient "top up" phosphorus credits.

In terms of the monitoring, this may take 12 months from the establishment of the wetland. On the assumption that there is deferment of the sports fields and facilities and

the play area (leaving as Greenspace) and only occupying 22 houses on 0.73ha of land, plus install the wetland and SuDS ponds, this could be nutrient neutral in land use terms.

For the non-wetland option, sufficient nutrient credits from the wider catchment such as Stodmarsh Stream Enhancement Scheme by Dace Environmental would be adequate mitigation, but it will need to first be evidenced that scheme has been approved by Ashford Borough Council in the form of a s106 legal agreement or by an equivalent Conservation Covenant approved by Natural England. It is understood that this is still in draft form.

It is concluded that the appropriate assessment is passed. Natural England has confirmed the acceptability of this approach subject to imposing the necessary conditions and s106 legal agreements.

Part 4 – Summary of the Appropriate Assessment - To be carried out by the Competent Authority (the local planning authority) in liaison with Natural England

Given the nature of the proposals and the mitigation options offered, it is considered that the project will not have an adverse effect on the integrity of the European sites in view of the sites' conservation objectives, either alone or in combination with other plans and projects.

Having made this appropriate assessment of the implications of the project for the site in view of that site's conservation objectives and the project is considered to comply with Regulation 63 of the Conservation of Habitats and Species Regulations 2017 subject to necessary conditions and s106 legal agreements.

Natural England:

Response dated 20 December 2024

As submitted, the application could have potential significant effects on Stodmarsh Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar site.
Natural England requires further information in order to determine the significance of these impacts and the scope for mitigation.
The following information is required:
• Evidence of the proposed mitigation wetland nutrient removal rates consistent with the Wetland mitigation Framework (WMF)
• Revised nutrient mitigation based off the amended nutrient budget calculation
• A revised Habitats Regulations Assessment to reflect any changes made in line with the above.
Without this information, Natural England may need to object to the proposal. Please re-consult Natural England once this information has been obtained.

Response dated 27.02.25

The precautionary and approved 30kg/yr removal rate should be used. As per our last response, Natural England's stance is that hydraulic loading rates (HLR) as found in the literature should not be used because these take no account of inlet concentration, which will strongly influence the load removal in most wetland treatment systems. Such an approach can only work if the removal rates are derived from very similar situations with very similar inlet concentrations, in a directly comparable geographic location.

Please note, temporary mitigation measures (i.e. temporary fallowing of agricultural land) could also be considered and secured. to provide temporary nutrient mitigation until the post 2030 upgrades of wastewater treatment works

Regarding the purchasing of nutrient neutrality credits from an alternative source, Natural England would advise that the securing of S106 agreements is a matter for your authority. We are not able to comment on the strategic mitigation scheme until we have been consulted, and our response has been received by the appropriate authority.

Final Response- 27.05.25

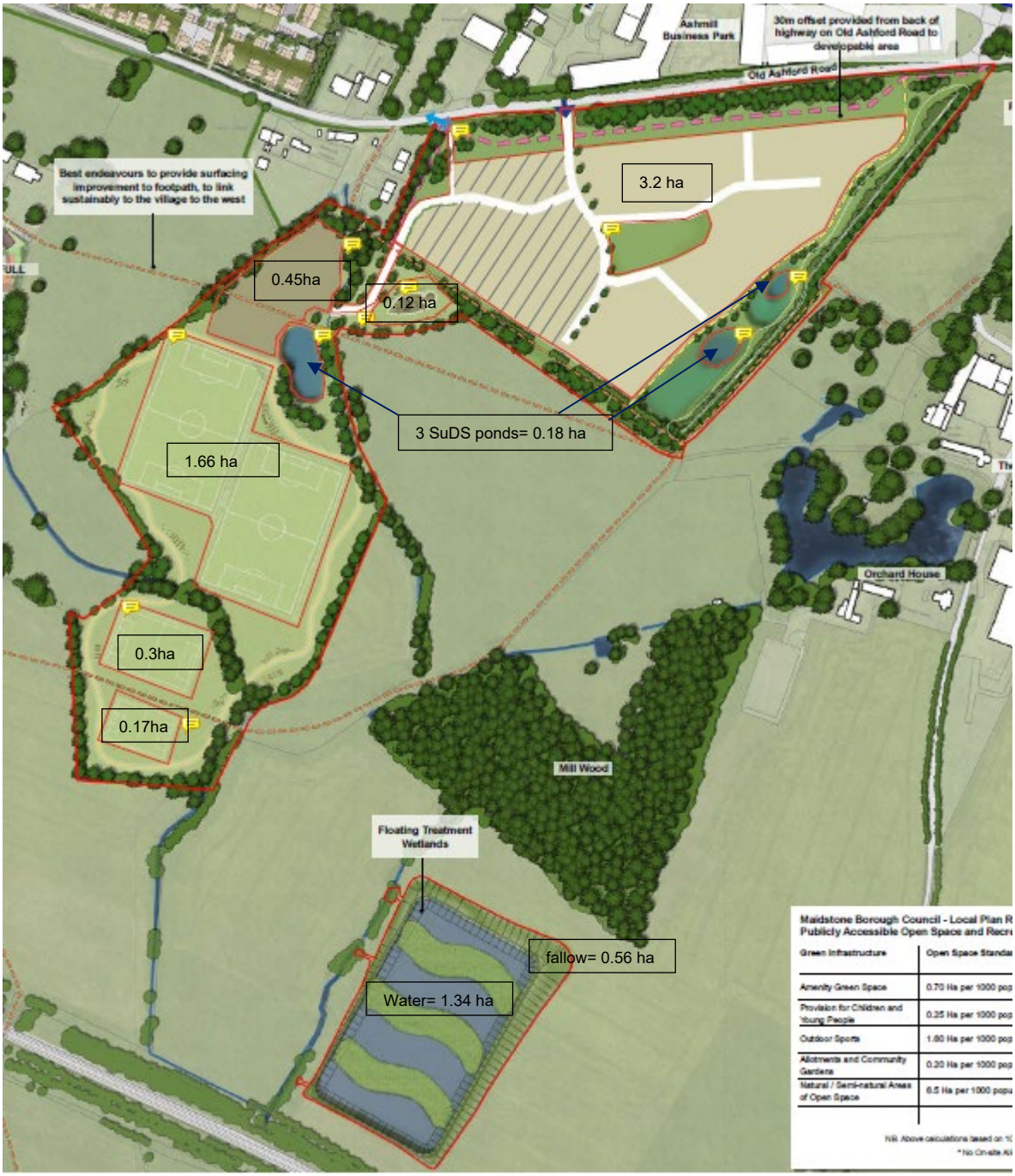
We consider that without appropriate mitigation the application would:
- have an adverse effect on the integrity of Stodmarsh Special Area of Conservation (SAC), Special Protection Area (SPA) and Stodmarsh Ramsar Site *https://designatedsites.naturalengland.org.uk/.*
- damage or destroy the interest features for which Stodmarsh Site of Special Scientific Interest has been notified.

In order to mitigate these adverse effects and make the development acceptable, the following mitigation measures are required / or the following mitigation options should be secured:
- Water usage to 110 litres per person per day
- Delivery, management and maintenance of proposed Sustainable Drainage Systems (SuDS) designed in accordance with CIRIA C805 and C815 guidance.
- Delivery and maintenance of appropriately designed floating treatment wetlands with associated monitoring to confirm required performance to achieve nutrient neutrality Pre-2030. Should wetland performance not meet modelled requirements by the agreed timescale, then additional mitigation in the form of fallowing will be required until 2030.

We advise that an appropriate planning condition or obligation is attached to any planning permission to secure these measures.

Signed	
Marion Geary 02/06/2025	Marion Geary Principal Planning Officer Maidstone Borough Council
Endorsed by:	
R. LL. Jarman **3/6/2025**	**Rob Jarman** **Head of Development Management**

Appendix 1- Land Use Hectarages



Appendix 2- Budget Calculations - with Wetland

Wastewater Nutrients

Description of required information	Data entry column - user inputs required
Date of first occupancy (dd/mm/yyyy):	01/01/2026
Average occupancy rate (people/dwelling or people/unit):	2.40
Water usage (litres/person/day):	120
Development proposal (dwellings/units):	100
Wastewater treatment works:	Lenham WwTW
Current wastewater treatment works P permit (mg TP/litre):	**0.50**
Current wastewater treatment works N permit (mg TN/litre):	**27.00**
Not applicable	**Not applicable**
Not applicable	**Not applicable**
Post 2030 WwTW P permit (mg TP/litre):	**0.25**
Post 2030 WwTW N permit (mg TN/litre):	**10**
Final calculation of nutrient load from wastewater	
Description of values generated	**Values generated**
Post-2030 wastewater nutrient loading	
Additional population (people):	**240.00**
Wastewater by development (litres/day):	**28800.00**
Annual wastewater TP load (kg TP/yr):	**2.37**
Annual wastewater TN load (kg TN/yr):	**94.67**
Pre-2030 wastewater nutrient loading	
Annual wastewater TP load (kg TP/yr)	**4.73**
Annual wastewater TN load (kg TN/yr)	**284.02**

Current Land Use

Current land use information	
Description of required information	**Data entry column - user inputs required**
Operational catchment:	Upper Stour
Soil drainage type:	Freely draining
Annual average rainfall (mm):	700.1 - 750
Within nitrate vulnerable zone (NVZ):	Yes

Current land uses			
Existing land use type(s) - user inputs required	**Area (ha) - user inputs required**	**Annual phosphorus nutrient export (kg TP/yr)**	**Annual nitrogen nutrient export (kg TN/yr)**
Cereals	13.56	**2.24**	**422.81**
Totals:	**13.56**	**2.24**	**422.81**

Future Land Use

Future land uses			
New land use type(s) - user inputs required	**Area (ha) - user inputs required**	**Annual phosphorus nutrient export (kg TP/yr)**	**Annual nitrogen nutrient export (kg TN/yr)**
Residential urban land	3.20	**4.64**	**43.23**
Greenspace	5.58	**0.11**	**16.74**
Open urban land	2.25	**1.75**	**17.92**
Water	0.18	**0.00**	**0.00**
Open urban land	0.45	**0.35**	**3.58**
Water	1.34	**0.00**	**0.00**
Greenspace	0.56	**0.01**	**1.68**
Totals:	**13.56**	**6.87**	**83.21**

SuDS

SuDS information									
New land use type(s) v	**SuDS catchment area (ha) - user inputs required**	**Percentage of flow entering the SuDS (%) - user inputs required**	**Annual phosphorus inputs to SuDS feature(s) (kg TP/yr)**	**Annual nitrogen inputs to SuDS feature(s) (kg TN/yr)**	**Name of SuDS feature(s)**	**TP removal rate for features - user specified (%) - user inputs required**	**TN removal rate for features - user specified (%) - user inputs required**	**Annual phosphorus load removed by SuDS (kg TP/yr)**	**Annual nitrogen load removed by SuDS (kg TP/yr)**
Residential urban land	3.20	65.00	**4.64**	**43.23**	Detention basin	12.00	30.00	**0.36**	**8.43**
Open urban land	0.45	65.00	**0.35**	**3.58**	Detention basin	12.00	30.00	**0.03**	**0.70**
	3.65		**4.99**	**46.81**				**0.39**	**9.13**

Final Budget

Total nutrient budget calculations	
Description of values generated	**Values generated**
Wastewater TP load (kg TP/year):	**2.37**
Net land use TP change (kg TP/year):	**4.24**
P budget (kg TP/year):	**6.61**
P budget + 20% buffer (kg TP/year):	**7.93**
Wastewater TN load (kg TN/year):	**94.67**
Net land use TN change (kg TN/year):	**-348.73**
TN budget:	**-254.06**
TN budget + 20% buffer:	**-254.06**
Post-2030 annual nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	**7.93**
The total annual nitrogen load to mitigate is (kg TN/yr):	**0.00**
Pre-2030 nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	**10.76**
The total annual nitrogen load to mitigate is (kg TN/yr):	**0.00**

Appendix 3- Budget Calculations – Without Wetland

Wastewater Nutrients

Description of required information	Data entry column - user inputs required
Date of first occupancy (dd/mm/yyyy):	01/01/2026
Average occupancy rate (people/dwelling or people/unit):	2.40
Water usage (litres/person/day):	120
Development proposal (dwellings/units):	100
Wastewater treatment works:	Lenham WwTW
Current wastewater treatment works P permit (mg TP/litre):	**0.50**
Current wastewater treatment works N permit (mg TN/litre):	**27.00**
Not applicable	**Not applicable**
Not applicable	**Not applicable**
Post 2030 WwTW P permit (mg TP/litre):	**0.25**
Post 2030 WwTW N permit (mg TN/litre):	**10**
Final calculation of nutrient load from wastewater	
Description of values generated	**Values generated**
Post-2030 wastewater nutrient loading	
Additional population (people):	**240.00**
Wastewater by development (litres/day):	**28800.00**
Annual wastewater TP load (kg TP/yr):	**2.37**
Annual wastewater TN load (kg TN/yr):	**94.67**
Pre-2030 wastewater nutrient loading	
Annual wastewater TP load (kg TP/yr)	**4.73**
Annual wastewater TN load (kg TN/yr)	**284.02**

Current Land Use

Current land use information			
Description of required information	**Data entry column - user inputs required**		
Operational catchment:	Upper Stour		
Soil drainage type:	Freely draining		
Annual average rainfall (mm):	700.1 - 750		
Within nitrate vulnerable zone (NVZ):	Yes		
Current land uses			
Existing land use type(s) - user inputs required	**Area (ha) - user inputs required**	**Annual phosphorus nutrient export (kg TP/yr)**	**Annual nitrogen nutrient export (kg TN/yr)**
Cereals	11.66	**1.93**	**363.56**
Totals:	**11.66**	**1.93**	**363.56**

SuDS

SuDS information								
New land use type(s) -	SuDS catchment area (ha) - user inputs required	Percentage of flow entering the SuDS (%) - user inputs required	Annual phosphorus inputs to SuDS feature(s) (kg TP/yr)	Annual nitrogen inputs to SuDS feature(s) (kg TN/yr)	Name of SuDS feature(s)	TP removal rate for features - user specified (%) - user inputs required	TN removal rate for features - user specified (%) - user inputs required	Annual phosphorus load removed by SuDS (kg TP/yr)	Annual nitrogen load removed by SuDS (kg TP/yr)
Residential urban land	3.20	65.00	4.64	43.23	Detention basin	12.00	30.00	0.36	8.43
Open urban land	0.45	65.00	0.35	3.58	Detention basin	12.00	30.00	0.03	0.70
	3.65		4.99	46.81				0.39	9.13

Future Land Use

Future land uses			
New land use type(s) - user inputs required	**Area (ha) - user inputs required**	**Annual phosphorus nutrient export (kg TP/yr)**	**Annual nitrogen nutrient export (kg TN/yr)**
Residential urban land	3.20	**4.64**	**43.23**
Greenspace	5.58	**0.11**	**16.74**
Open urban land	2.25	**1.75**	**17.92**
Water	0.18	**0.00**	**0.00**
Open urban land	0.45	**0.35**	**3.58**
Water		**0.00**	**0.00**
Greenspace		**0.00**	**0.00**
Totals:	**11.66**	**6.85**	**81.47**

Final Budget

Total nutrient budget calculations	
Description of values generated	**Values generated**
Wastewater TP load (kg TP/year):	**2.37**
Net land use TP change (kg TP/year):	**4.54**
P budget (kg TP/year):	**6.91**
P budget + 20% buffer (kg TP/year):	**8.29**
Wastewater TN load (kg TN/year):	**94.67**
Net land use TN change (kg TN/year):	**-291.22**
TN budget:	**-196.55**
TN budget + 20% buffer:	**-196.55**
Post-2030 annual nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	**8.29**
The total annual nitrogen load to mitigate is (kg TN/yr):	**0.00**
Pre-2030 nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	**11.13**
The total annual nitrogen load to mitigate is (kg TN/yr):	**0.00**
Not applicable	
Not applicable	**Not applicable**
Not applicable	**Not applicable**