STOUR ENVIRONMENTAL CREDITS LTD

Shadow Strategic Appropriate Assessment

For developments in Kent occurring in the catchment of Stodmarsh Special Area of Conservation Special Protection Area and Ramsar

Valid from: 1 April 2026 to 31 March 2027

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2.0	09/03/2026	Board approved version for 2026/27
2.1	23/03/2026	Mitigation Schedule updated to reflect 5% buffer

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Acknowledgements

The content of this Shadow Strategic Appropriate Assessment is based upon the Stodmarsh Nutrient Mitigation Strategy report by Kent County Council (September 2025).

Contents

1 Introduction

1.1 Background

This report relates to the catchment of a European and internationally designated site, Stodmarsh, in the River Stour catchment, Kent. Stodmarsh, which is designated a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site. Several of the nature reserve lakes at Stodmarsh are in a state of eutrophication (an unfavourable conservation status). The Habitats Regulations therefore apply.

A Habitats Regulations Assessment (HRA) refers to the several distinct stages of assessment which must be undertaken in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended) to determine if a plan or project may affect the protected features of a habitats site (any site which would be included within the definition at Regulation 8 of the Conservation of Habitats and Species Regulations 2017) before deciding whether to undertake, permit or authorise it.

A significant effect should be considered likely if it cannot be excluded on the basis of objective information and it might undermine a site's conservation objectives. A risk or a possibility of such an effect is enough to warrant the need for an Appropriate Assessment (AA) to be carried out by the competent authority. 'Appropriate' is not a technical term. It indicates that an assessment needs to be proportionate and sufficient to support the task of the competent authority in determining whether the plan or project will adversely affect the integrity of the habitats site. An AA must contain complete, precise, and definitive findings and conclusions to ensure that there is no reasonable scientific doubt as to the effects of the proposed plan or project.[1]

In 2018, the European Court of Justice refined the definition of plans and projects in the so-called 'Dutch case' ruling that mitigation needs to be certain at the time of assessment to ensure that there will be no adverse effect on the conservation status of European designated sites which already exceed compliance limits[2].

The practical implication of the Dutch Case across England is the necessity to mitigate increases in nutrient loading from new development including nutrients contained in surface water runoff and an increase in wastewater flows to any of the Wastewater Treatment Works (WwTW) in the relevant catchment.

Nutrient neutrality is a means of ensuring that a plan or project does not add to existing nutrient burdens. Where nutrient neutrality is properly applied and the existing land does not undermine the conservation objectives, Natural England (NE) considers that an adverse effect on integrity alone and in combination can be ruled out[3].

A Written Ministerial Statement on Nutrient Neutrality was published on 20th July 2022 and the Department for Environment, Food & Rural Affairs issued a Direction to Natural England on establishing strategic mitigation schemes on 28 July 2022. Natural England has been tasked with introducing a credits-based scheme, however no schemes in the Stour catchment have been identified as yet.

The Levelling Up and Regeneration Bill gained Royal Accent on 26 October 2023. The Levelling Up and Regeneration Act includes a requirement for certain wastewater treatment works to be upgraded to Technically Achievable Limits (TAL) by 2030. This will reduce the nutrient mitigation requirement significantly.

[1] Guidance on the use of Habitats Regulations Assessment – https://www.gov.uk/guidance/appropriate-assessment – accessed 01/2024
[2] Joined Cases C-293/17 and C-294/17 of the European Court of Justice
[3] Wood, A., Wake, H., and McKendrick-Smith, K. (2022) 'Nutrient Neutrality Principles' Natural England Technical Information Note, TIN186

Some large-scale developers may well be able to provide mitigation on or close to site, however, small and medium sized developers are unlikely to have scope to provide local solutions, especially in urban settings. A Stour catchment-wide solution is therefore required to develop suitable mitigation, in this instance through environmental credits, that can then be made available for developers to purchase.

Stour Environmental Credits Ltd has been established to deliver an effective environmental credits scheme, initially providing Nutrient Neutrality mitigation through a balanced portfolio of solutions.

As a not-for-profit company Stour Environmental Credits will fund nutrient mitigation schemes by recycling income generated from the sale on nutrient credits. Funding for initial mitigation schemes will be secured from the Local Nutrient Mitigation Fund through Kent County Council.

1.2 Stour Environmental Credits

Stour Environmental Credits Ltd has been formed as a joint venture between Ashford Borough Council and Canterbury City Council to provide mechanisms to offset the effect of nutrients from new development which would affect the protected habitats of Stodmarsh. The following affected councils will also have access to credits:

- Folkestone & Hythe District Council
- Maidstone Borough Council
- Swale Borough Council

The joint venture also works collaboratively with Natural England and the Environment Agency through agreed Terms of Reference, with attendance at Technical Working Groups.

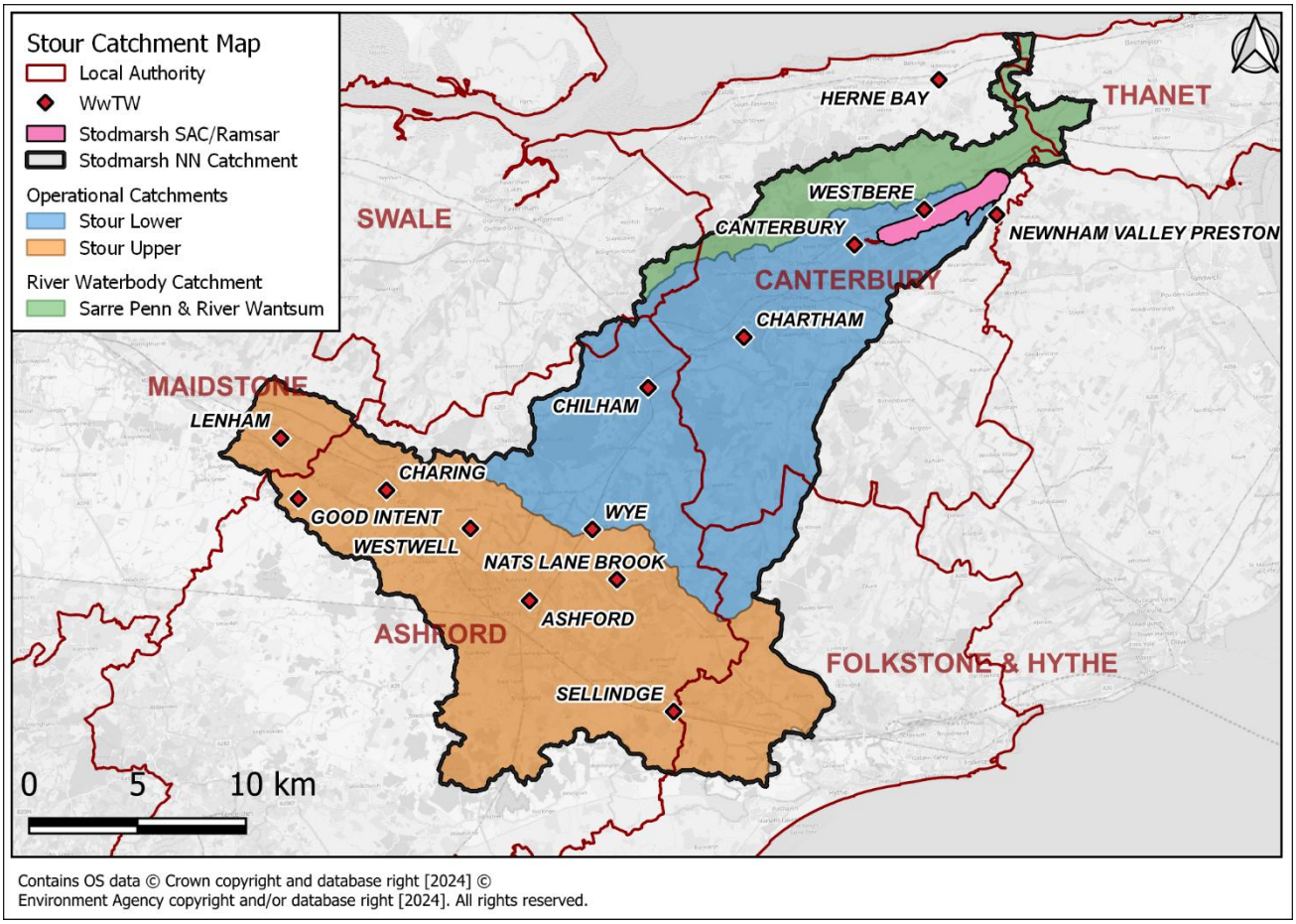

Figure 1-1: Stodmarsh catchment map

Stodmarsh is one of the worst affected areas in the country for Nutrient Neutrality with the added challenge of having to address both phosphorus and nitrogen. Stour Environmental Credits' approach provides a unique portfolio of nutrient mitigation, from short term solutions to longer term projects and interventions, with the ultimate aim of supporting the restoration of our habitats sites and rivers.

Stour Environmental Credits Ltd will target provision of mitigation to cover as much as possible of the required demand at any time within the catchments and will prioritise small and medium sized developers and sites, alongside strategically important schemes which have a clear and bespoke justification. This will only provide part of the solution and there will still be a requirement for larger developers to directly provide for the necessary mitigation measures themselves or seek other sources, such as the Nutrient Neutrality credits that will become available from Natural England or others that enter the market.

1.3 Stodmarsh Designated Sites[4]

The Stodmarsh SSSI is designated by NE for the following features of interest:

- Wetland habitats including extensive reedbeds, swamp and fen communities;
- Open water habitats including lakes, ditches, and lagoons;
- Diverse breeding and non-breeding bird communities. Two rare British birds – Cetti's warbler and bearded tit – breed here in nationally significant numbers;

[4] Designatedsites.naturalengland.org.uk (Accessed 01/2024)

- Varied invertebrate fauna, including multiple scarce moth species;
- An assemblage of vascular plants.

The Stodmarsh SPA is designated for the following features and supported species:

- Bittern (Non-Breeding);
- Gadwall (Breeding and Non-Breeding);
- Hen Harrier (Non-Breeding);
- Shoveler (Non-Breeding);
- Breeding bird assemblage;
- Waterbird assemblage;

The Stodmarsh Ramsar Site is designated, under criteria 2 of the Ramsar Convention, for:

- Wetland invertebrate assemblage;
- Wetland plant assemblage;
- Assemblage of rare wetland birds;
- Bearded tit populations (Breeding and Wintering);
- Bittern (Wintering);
- Gadwall (Breeding and Wintering);
- Hen Harrier (Wintering);
- Shoveler (Wintering);

The Stodmarsh SAC is designated for the following qualifying species:

- Desmoulin's whorl snail;

The focus of this report is on the evidence of degrading water quality in the Stodmarsh SSSI, SPA, Ramsar and SAC, henceforth referred to as the 'Habitats Sites'.

1.4 Nutrients of Significance

It has been found that the nutrients of the highest significance in terms of water quality in the Habitats Sites are Total Nitrogen (TN) and Total Phosphorus (TP).

TN includes organic and inorganic forms of nitrogen, both of which are available for plant growth and can contribute to algal blooming. TN is the sum of inorganic forms of nitrogen – nitrate nitrogen (NO_3-N), nitrite nitrogen (NO_2-N) and ammoniacal nitrogen (NH_3-N and NH_4-N) – and organically bonded nitrogen.

TP includes all phosphorus components – phosphate phosphorus (PO_4-P), dissolved organic phosphorus and particulate phosphorus in algal and bacterial cells – and also includes mineral particles such as clay.

1.5 Water Quality

The condition of the Habitats Sites which support the designated features is in part dependent on the water quality within them. The occurrence of excessive nutrients in the Habitats Sites can impact the competitive

interactions between vascular plant species, and between vascular plant species and algae, which can result in dominance in attached forms of algae, and a loss of characteristic plant species.

Changes in plant growth and community composition can have implications for the wider food web and the species present. Increased nutrients and the occurrence of eutrophication can also affect the dissolved oxygen levels in the waterbody, which can also impact the biota within the Habitats Sites.

Algal Bloom and fish kill events have been observed in one of the Habitats Sites Lakes (SSSI Unit 010). Assessments by NE have described the condition of this lake as 'unfavourable' and indicated high nutrient levels. TP has been measured at 1000 µg/l where the target for SSSI lakes is 49 µg/l. Eutrophication, which arises as a result of increased water nutrient levels, can lead to a reduction of fish and macrophyte populations. This in turn impacts food availability for SPA/Ramsar birds and the qualifying invertebrate community. The reason for this adverse condition is quoted as 'Freshwater pollution – Water Pollution – Discharge'.

The lake within SSSI Unit 007 has also been described as 'unfavourable' and has been found to fail in reaching nationally agreed water quality targets, including an excess of nitrogen and phosphorus. The reason for this adverse condition is quoted as 'Freshwater pollution – Water Pollution – Agriculture/Runoff'.

Lakes within Units 001, 002 and 005 are described as in 'Favourable' or 'Unfavourable – recovering' condition and thus are not of concern for this assessment.

Concentrations of TN and TP have been recorded within the lakes in SSSI Units 007 and 010 above the NE SSSI Favourable Condition Targets (FCTs) of 49 µg/l TP and 1.5 mg/l TN. It is important to understand the mechanism by which these nutrients enter the Habitats Sites. Some of the major sources of TN and TP have been identified as the following[5]:

- WwTWs which outfall into the Stour upstream of the Habitats Sites;
- Runoff from urban and agricultural land;
- Flood waters from the River Great Stour (during both high flow and tidal events); and
- Recycling of Nutrients within lake 007 itself.

In the case of TP, it has been estimated that the dominant source of phosphate in the River Stour is WwTWs, accounting for 50% – 80% of concentrations in the river adjacent to the Habitats Sites[6].

1.6 The scope of this Appropriate Assessment

This Shadow Strategic Appropriate Assessment has been written Water Environment for Stour Environmental Credits Ltd and is concerned solely with water quality within Stodmarsh. Other impacts on designated sites, such as increased recreational pressure, are not within the scope of this documentation.

The Competent Authorities, as defined under the Regulations, are Ashford Borough Council and Canterbury City Council, for planning applications within each Councils' respective area. The appropriate nature conservation body is Natural England.

This report is the assessment carried out on behalf of these Local Authorities under Regulation 63 (1) of the Habitats Regulations. The assessment is made collectively for all planning applications for residential developments in the Stour catchment, whether already made but undetermined, or anticipated to be made.

[5]APEM, Stodmarsh SSSI, SPA and NNR Lake Hydrology Project Phase 1, April 2016
[6]ATKINS, Stodmarsh Lake Hydrology Study, May 2016

Development of a dwelling includes new-build dwellings, conversion of buildings in other use into dwellings, subdivision of one dwelling into two or more dwellings, or one traveller pitch.

Current estimates are that during the current Local Plan periods for the Local Planning Authorities in Stour 17,921 kg of nitrogen mitigation and 744 kg of phosphorus mitigation will be required up to 2030 and 14,251 kg of nitrogen mitigation and 708 kg of phosphorus mitigation will be required between 2031 – 2040 (see Table 1-1 below). Stour Environmental Credits Ltd is aiming to identify and secure as much as possible of this demand.

Table 1-1: Nutrient mitigation requirements for small sites (<300 properties) up to 2040 (taken from Stodmarsh Nutrient Mitigation Strategy report by Kent County Council)[7]

	Up to 2030	**2031-2040**
Nitrogen, kg/year	17,921	14,251
Phosphorus, kg/year	744	708

This Shadow Strategic Appropriate Assessment will be reviewed annually and updated as further Nutrient Neutrality mitigation schemes are developed by Stour Environmental Credits, incorporating amendments considered necessary to avoid adverse effects on Stodmarsh.

An Endorsed Mitigation Schedule is attached at Appendix A. This details the nutrient mitigation schemes secured by Stour Environmental Credits to help meet the trajectory of phosphorus and nitrogen reductions in line with the spatial and temporal pattern of proposed development. Nutrient Neutrality mitigation schemes will be added to the Endorsed Mitigation Schedule as they are endorsed, enabling this Shadow Strategic Appropriate Assessment to reply upon them.

1.6.1 Relationships between this Appropriate Assessment and individual planning application HRAs

When purchasing nutrient credits from Stour Environmental Credits, developers can rely on this Shadow Strategic Appropriate Assessment to demonstrate how the calculated nutrient loads associated with their proposed housing development have been mitigated. It is important to note this Shadow Strategic Appropriate Assessment is specific to assessing the impacts in relation to water quality only. Other impacts on designated sites must be assessed separately as part of a broader shadow Habitat Regulations Assessment.

Developers will be required to submit the following documentation to the Local Planning Authority to demonstrate how the calculated nutrient loads associated with their housing development have been mitigated.

- The **nutrient load calculator** assessing the net phosphorus and nitrogen loads arising from the proposed development.
- A site-specific **shadow Habitat Regulations Assessment** screening and assessing all likely significant effects on designated sites as a result of their proposed development and specifically referencing the documents listed below in relation to effects on water quality.

Stour Environmental Credits will supply the following supporting document to developers when purchasing nutrient credits:

[7] Kent County Council (January 2025), Stodmarsh Nutrient Mitigation Strategy. Available at: https://democracy.kent.gov.uk/documents/s128497/Stodmarsh+Nutrient+Neutrality+Strategy.pdf

- This **Shadow Strategic Appropriate Assessment** to provide confidence to the Local Planning Authority and Natural England of the processes and principles that underpin nutrient credits purchased from Stour Environmental Credits Ltd.
- The **Technical Mitigation Report** setting out details of the specific mitigation scheme(s) and the scientific evidence base that underpins the nutrient credits purchased from Stour Environmental Credits Ltd.
- The unique **Credit Certificate** issued by Stour Environmental Credits Ltd detailing of the quantum of credits purchased, the housing development to which the credits can be used to offset nutrient loadings, and the date from which occupation of new housing developments can take effect.

2 Likely significant effects of development of dwellings within affected catchments

2.1 Stage One - Screening

There are several potential impacts arising from an increase of nitrogen and phosphate in the designated sites. In freshwater habitats poor water quality due to nutrient enrichment from elevated nitrogen and phosphate 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 through the process of eutrophication. The effects of this look different depending on the habitat, however in each case, there is a loss of biodiversity, leading to sites being in 'unfavourable condition'. Examples include:

- High levels of algal growth leading to turbid water. Aquatic plants are shaded out. Invertebrates associated with the plants lose their shelter and foraging. Fish predation of invertebrates is increased in the absence of aquatic plants providing shelter, so algal growth is not eaten by invertebrates and worsens the situation.
- Algal blooms can cause deoxygenation of water leading to fish and invertebrate death
- Increased growth of a small number of larger plant species in wetland habitats such as fens hydrologically connected to the rivers. Smaller plants are unable to compete and are lost. Germination from seed is inhibited by strong growth from larger plant species. Diversity reduces.

It is concluded that housing developments discharging waste and surface water into the catchments described in section 1.3 is likely to have a significant effect upon one or more designated sites. The developments are not necessary for, or connected with, nature conservation management of designated sites. This conclusion is for water quality impacts only. Other impacts should be assessed separately. It is concluded that an Appropriate Assessment of impacts is necessary.

2.2 Stage Two - Appropriate Assessment and the Integrity Test

2.2.1 Calculation of impact of each development

The net change in nutrients for each proposed development can be calculated using a calculator originally provided by Natural England in March 2022, with the latest update to the calculator in May 2025.

The calculation has three stages:

- Calculate the current contribution to nutrient input to habitats sites, often based on nutrients leaching through soil or runoff from existing land use types
- Calculation of the proposed contribution to nutrient input to habitats sites, often based on nutrients leaching through soil or runoff from existing land use types

- Calculation of the amount of nutrients in treated sewage which is discharged into the rivers in, or upstream of, habitats sites.

The change in nutrients is a simple calculation of nutrients provided by the proposed land use change added to the nutrients from sewage, less the current nutrient provision. Calculations use assumed data for land use types and for sewage outputs, and use WwTW permitted discharge limits for nitrogen and phosphate in effluent. It is rare for developments to provide a net reduction in nutrients; most developments produce a net increase of nutrients.

2.2.2 Mitigation targets

Once the impact is calculated, the calculator sets a target for mitigation to be provided (called the "nutrient budget"). Mitigation targets include a 20% greater reduction ("buffer") of each nutrient than the calculated net increase, to allow for uncertainty in the accuracy of the calculator and remove reasonable doubt about the target. Developers may provide a net reduction in nutrients greater than the targets, if they wish.

2.2.3 Mitigation options

Stour Environmental Credits Ltd will be offering strategic mitigation solutions based on the work Kent County Council has undertaken to identify different options to reduce nitrogen and phosphate in Stodmarsh[8]. This will enable developers to purchase Nutrient Neutrality credits to offset the nutrient inputs arising from their proposed housing development. The credits will arise from the delivery of nutrient mitigation solutions within the Stour catchment, upstream of Stodmarsh.

2.3 Mitigation delivery through Stour Environmental Credits

The implications of development related phosphorus and nitrogen inputs have been assessed through scientific work that has been undertaken by Water Environment on behalf of Kent County Council. This included calculating the nutrient load from proposed development as set out in the Local Plans and site allocations for Ashford Borough Council, Canterbury City Council, Folkestone & Hythe District Council, Maidstone Borough Council, and Swale Borough Council. The other Kent Authorities have been assessed as having limited water quality implications either due to wastewater discharge outside the Stour catchment or low numbers of housing applications with a riparian or wastewater link to Stodmarsh). The councils that are most significantly affected (Ashford Borough Council and Canterbury City Council have agreed to enter a Joint Venture (Stour Environmental Credits), working with the Environment Agency and Natural England, to deploy a range of measures to enable development to come forward between 2025 and 2040 that will be nitrogen and phosphorus neutral.

Further details on the mitigation that has been secured by Stour Environmental Credits will be set out in the Endorsed Mitigation Schedule (Appendix A) when available. This includes temporary, impermanent and permanent solutions. The following list sets out the nutrient mitigation solutions Stour Environmental Credits is focussing on:

Nature based solutions

- Riparian buffer strips (ST, Impermanent)
- Integrated constructed wetlands (MT, Permanent)
  Floodplain Meadows (MT, Permanent)

Run-off management solutions

- Conversion of agricultural land to solar farms (ST, Impermanent)
- Conversion of agricultural land to lower nutrient input use (ST, Permanent)

[8] Kent County Council (January 2025), Stodmarsh Nutrient Mitigation Strategy. Available at: https://democracy.kent.gov.uk/documents/s128497/Stodmarsh+Nutrient+Neutrality+Strategy.pdf

- Cover crops (ST, Impermanent)

Wastewater management solutions

- Improve existing wastewater treatment infrastructure (MT, Permanent)
- Portable treatment works (ST, Temporary)
- Promote connection to package treatment plants (ST, Permanent)
- Septic tank conversion (ST, Permanent)

Demand management solutions

- Retrofitting local authority, registered provider housing stock with water saving measures (selected Southern water customers (must be connected to WwTW that has a permit)) (ST, Impermanent but can be Permanent with assurance re replacement)

Delivery Timescale

- Short Term (ST) – can potentially be implemented in less than a year
- Medium Term (MT) – can potentially be implemented in 1-5 years
- Long Term (LT) – likely to take over 5 years

Duration of Operation

- Temporary – likely to remain in place for up to 5 years
- Impermanent – likely to remain in place for between 5 to 10 years
- Permanent – Likely to remain in place for more than 10 years, could be secured in perpetuity

2.3.1 Endorsed Mitigation Schedule

The purpose of Stour Environmental Credits is to mitigate development related nutrients and so it is committed to preparing a plan to secure a trajectory of phosphorus and nitrogen reductions in line with the spatial and temporal pattern of development. Whilst not providing solutions for all the development needs, the approach by Stour Environmental Credits is consistent with Natural England's updated advice on Nutrient Neutrality requirements for Stodmarsh (published March 2022). Stour Environmental Credits will seek to secure mitigation that aligns with housing development across the region.

The Endorsed Mitigation Schedule may include provision of both temporary and permanent mitigation measures for both phosphorus and nitrogen.

The schemes may be situated in a range of locations across the catchment, and will not be co-located with each proposed development. This Shadow Strategic Appropriate Assessment relies upon the schemes contained within the Endorsed Mitigation Schedule.

2.3.2 Nutrient credit trading units

Stour Environmental Credits will trade nutrient credits in units of 0.01kg/yr of phosphorus (P) and 0.01kg/yr nitrogen (N). The price point for credits will reflect the costs associated with providing a portfolio of nutrient mitigations solutions across the catchment, including the ongoing management and monitoring of those schemes. The portfolio aims to smooth out mitigation costs with a desirability to avoid credit price fluctuations. This price point will be reviewed as the portfolio develops and different tranches of mitigation are introduced into the Endorsed Mitigation Schedule. As such the future cost of nutrient credits could either go up or down.

2.3.3 Effectiveness of the strategic solution

The effectiveness of the strategic nutrient mitigation solutions provided by Stour Environmental Credits have been assessed against the Nutrient Neutrality Principles set out within Natural England's Technical Information Note (TIN186)[9]. A summary of how the mitigation solutions meet these principles is set out below:

2.3.4 Principle 1 **Have scientific certainty that the measures at the time of the Appropriate Assessment will deliver the required reduction to make the plan or project 'neutral'.**

Stour Environmental Credits Ltd will commission an independent scientific review of all its nutrient mitigations solutions to ensure there is no reasonable scientific doubt regarding the effectiveness of the mitigation on which credits are traded.

For each of the mitigation schemes set out in Endorsed Mitigation Schedule, either a Nutrient Mitigation Scheme Review Report or Technical Mitigation Report will be provided to the Local Authorities, Environment Agency and Natural England for feedback and endorsement. This will set out details of the mitigation, including location, zone of impact, mitigation yield, scientific base, agreement with the provider and outline timescale for the mitigation to be operational. This will provide the background to the mitigation solution and provides assurances around its effectiveness.

Stour Environmental Credits Ltd will not trade nutrient credits for any of the mitigation schemes, or append them to the Endorsed Mitigation Schedule until such time as Natural England have provided advice on the mitigation scheme and agreed the quantum of credits available to trade.

An Environmental Technical Group (on which Natural England will sit) will also provide a forum for statutory agencies to advise on the implications of the growing scientific evidence which underpins the delivery of phosphorus and nitrogen neutral development, work being undertaken nationally to address nutrient impacts and in due course on the steps being taken to bring the Special Area of Conservation into favourable condition.

At least two full meetings of the Environmental Technical Group will be held every year when the commitment by SEC and the details on mitigation secured and delivered will be analysed.

2.3.5 Principle 2 **Have practical certainty that the measures will be implemented and in place at the relevant time when the Appropriate Assessment is undertaken, e.g. secured and funded for the lifetime of the development's effects**.

Stour Environmental Credits Ltd will ensure mitigation on which credits are traded is legally secured and that funding is available to enable delivery. The basis on which any given mitigation scheme has been secured will be outlined within the Technical Mitigation Report/Framework. Typically, mitigation will be legally secured through two mechanisms.

Firstly, a contractual agreement(s) between Stour Environmental Credits and the mitigation provider to secure the mitigation through obligations placed on the mitigation provider to generate nutrient mitigation and allow the resultant credits to be traded exclusively by Stour Environmental Credits.

Secondly, an agreement or unilateral undertaking (attached separately) made pursuant to section 106 Town and Country Planning Act 1990 as amended, or a Conservation Covenant made pursuant to Part 7, Environment Act 2021. This Planning Agreement will place the same obligations on the mitigation provider to generate nutrient mitigation and will enable the Local Planning Authority (in which the mitigation solution is located) to take enforcement action against the provider if those obligations are not satisfied. Given mitigation

[9] WOOD, A., WAKE, H. and MCKENDRICK-SMITH, K. 2022. Nutrient Neutrality Principles. Natural England Technical Information Note. TIN186. Natural England. Available at: https://publications.naturalengland.org.uk/publication/5031421117988864

solutions may be relied upon by other Local Planning Authorities in Stour when consenting development (termed Development LPAs), a further legal mechanism will be provided to allow the Development LPAs to take enforcement action against the provider if obligations are not satisfied.

The above legal agreements will secure mitigation for a minimum of 80 years where the resultant nutrient credits are traded as in-perpetuity credits.

For temporary nutrient credits the mitigation will be secured for a period of time that is consistent with the with the period over which those credits will be utilised. For short-term temporary nutrient credits, such as cover crops it is not proposed a Planning Agreement will be required to secure the mitigation. Instead, any risk associated with mitigation providers not meeting their obligations will be mitigated through applying a contingency to the quantum of credits traded versus the mitigation secured. This will have the effect of creating a precautionary buffer, that if not relied upon will help contribute to returning designated sites to favourable condition.

2.3.6 Principle 3 **Be preventative in nature so as to avoid effects in the first place rather than offset or compensate for damage. This applies both temporally and spatially.**

Stour Environmental Credits Ltd will issue a Credit Certificate to developers when nutrient mitigation has been legally secured and sold to them as credits. The Credit Certificate will include details of the quantum of credits purchased alongside a unique identifier, the housing development to which the credits can be used to offset nutrient loadings (non-transferable to other development sites or developers) and the date from which occupation of new housing developments can take effect. The developer will need to present the Credit Certificate (alongside the documents listed in section 1.6.1 of this document) to the Local Planning Authority to enable their planning application to be determined. Local Planning Authorities can (as required) place conditions on the planning applications they approve to prevent occupation of developments prior to the date the credits become effective. This will ensure mitigation is provided in advance of nutrient loads from new development entering the designated sites.

Where in-perpetuity mitigation solutions are legally secured but not yet fully operational (for example an Integrated Constructed Wetland under construction), the credits arising from this scheme may be traded but would be sold in conjunction with a temporary mitigation to provide a bridging solution until such time as the in-perpetuity scheme is operational and fully effective. The details of all mitigation schemes relied upon for nutrient credits will be set out on the Credit Certificate issued to developers. Where in-perpetuity schemes are not yet fully effective a precautionary buffer will be in place to ensure sale of credits relating to that mitigation scheme are limited until the efficiency in reducing nutrient loads is fully determined through appropriate monitoring.

The phosphorus and nitrogen burdens of all the developments where credits have been provided by Stour Environmental Credits Ltd will be tracked and it will be guaranteed that the requisite phosphorus and nitrogen mitigation measures are appropriately located in relation to the permitted development. The process associated with this is more fully set out in the Monitoring and Reporting section of this document (2.3.4).

2.3.7 Principles 4 and 7 **(4) Not undermine the objective of restoring the site to favourable condition by making the 'restore' objective appreciably more difficult or prejudicing the fulfilment of that objective. (7) Ensure that there is no real risk that the existing land use, which may be maintained by neutrality (or an improvement), undermines the conservation objective to 'restore' the site to favourable condition. This applies to the existing land use at the development site and at any off-site mitigation land.**

Stour Environmental Credits Ltd will work closely with Natural England, Local Planning Authorities and other appropriate bodies to ensure where there is only a limited pool of nutrient mitigations measures available to bring the designated sites into favourable condition the 'restore' objective is not undermined by the enablement of housing growth through the sale of nutrient credits.

An Environmental Technical Group will provide a forum for statutory agencies to advise on the implications of the growing scientific evidence which underpins the delivery of phosphorus and nitrogen neutral development including their interface with activities and actions being taken to bring the designated site into favourable condition. At least two full meetings of the Environmental Technical Group will be held every year.

2.3.8 Principle 5 **Not directly use or double count measures that are already in place or must be put in place to protect, conserve or restore the site (to meet article 6(1) and (2) requirements) in order to justify new growth.**

Stour Environmental Credits Ltd will at all times ensure mitigation schemes that support the trading of environmental credits provide additionality, and that credits are not generated through mechanisms that have been identified to help restore designated sites to favourable condition.

Stour Environmental Credits approach will take account of the provisions contained within the Levelling Up and Regeneration Act, which requires Local Planning Authorities to take account of the scheduled upgrade of WwTWs to Technically Achievable Limits (TAL) from 1 April 2030. These assumptions should be built into developer nutrient calculations for Planning Applications determined after 26 December 2023. This will enable the sale of temporary credits by Stour Environmental Credits to meet the short-term need for higher levels of mitigation prior to 2030. These changes will reduce nitrogen to no more than 10mg/l and phosphorus to no more than 0.25 mg/l at the outfall of the relevant WwTWs. DEFRA has published the list of Water Recycling Centres that are required to achieve TAL. The Natural England calculator indicates that TAL will reduce the phosphorus load arising from new development post 2030 by 60% and the nitrogen load by 64% (using the current licence limits at Ashford WwTW as a baseline). The effectiveness of any planned mitigation in removing levels of nutrients could also be significantly affected post 2030 if TAL was introduced at a site upstream.

During the period to 2030 Southern Water will be making improvements to some WwTWs as part of lowering phosphorus and nitrogen permit levels which are set out in their Asset Management Plan (AMP). It is understood there is no mitigation 'value' in taking measures which go beyond the identified limits at the sites currently identified in the Asset Management Plan to create headroom for development post 2030, as this headroom cannot be counted as long term nutrient mitigation.

In addition Southern Water have improvement targets identified at WwTWs through the Water Industry National Environment Programme (WINEP) and Common Standards Monitoring Guidance (CSMG) linked to the Habitat Regulations which also reduces the WwTWs that can be used as sources for nutrient mitigation credits.

Southern Water is funded via the regulatory price review process to deliver these statutory obligations and hence these improvements do not generate tradable nutrient credits in which Stour Environmental Credits can invest.

If improvement works at other non-TAL/WINEP/CSMG designated WwTWs can be implemented and mitigation can be demonstrated to operate and be funded in perpetuity (80 years), then this capacity will be available to use towards the mitigation need where it can be evidenced accordingly. At the current time details have not yet been finally determined. Any such schemes that are brought forward will be supported by a Technical Mitigation Report and entered into the Endorsed Mitigation Schedule once endorsed by Natural England.

In addition, bringing forward improvements at identified TAL sites will reduce the developer requirement in the nutrient calculator (subject to permits being amended), however, it is envisaged that no temporary headroom will be created to sell credits.

2.3.9 Principle 6 **Be carefully justified together with calculations of the change in the nutrient contribution before and after the development taking account of any mitigation on land outside the development.**

Stour Environmental Credits Ltd has been using the evidence provided by Water Environment (based on the Natural England calculator) to calculate the phosphorus and nitrogen burdens from new development in Stodmarsh and determine the in-perpetuity mitigation that will be provided for the housing development planned up to 2040.

Developers will be responsible for selecting an appropriate tool to calculate the nutrient loads arising from their individual developments sites and therefore determining the quantum of nutrient credits they need to purchase. The Nutrient Neutrality calculator provided by the Natural England includes a precautionary buffer of 20% in the phosphorus and nitrogen projections for each site. Local Planning Authorities will be validating the quantum of nutrient mitigation calculated and credits purchased by developers to ensure nutrient loadings arising from development don't have a detrimental impact on the water quality of designated sites. Developers therefore need to ensure they have confidence in the accuracy of their nutrient load calculations prior to purchasing credits from Stour Environmental Credits. If insufficient credits are purchased by developers Stour Environmental Credits will endeavour, at its sole discretion, to make additional credits available to account for 'minor adjustments'. However, this is not guaranteed and will be subject to credit availability and agreed principles regarding credit allocation.

An independent scientific review of all nutrient mitigation solutions traded by Stour Environmental Credits Ltd will also be undertaken to ensure there is a robust scientific evidence base for the effectiveness of the mitigation on which credits are traded. This will be detailed with a Technical Mitigation Report/Framework for each mitigation scheme and will be provided to the Local Authorities and Natural England for feedback and agreement.

2.3.4 Monitoring and Reporting

At a strategic level the Stour Environmental Credits Board will track phosphorus and nitrogen neutrality impacts in the short term and continue to refine the plan for the longer term. The programme team will track progress of the delivery measures funded by developers and monitor these against forecasts of housing delivery (housing trajectories) and annual returns of housing completions provided by the Local Authorities.

At an operational level nutrient credits generated from mitigation schemes will be comprehensively tracked to ensure mitigation is delivered in the right place for development, development is not occupied until mitigation is functioning and that the quantum of credits traded never exceeds the quantum of mitigation secured.

The development sites capable of benefiting from any given mitigation solutions will be identified spatially using a Geographic Information System (GIS). This records details of all planning applications held up by Nutrient Neutrality across the Stour catchment. This data is supplemented with the quantum of nitrogen and phosphorus mitigation required by developers in accordance with their calculations and as submitted by them via the Stour Environmental Credits website.

The Technical Mitigation Report/Framework for each mitigation scheme (approved by Natural England) will detail the catchments/sub-catchments within which development can be supported, and this boundary will

be used as the basis for extracting the appropriate development sites from the GIS system. Developers will then be contacted by Stour Environmental Credits and provided with an option to purchase credits.

If the option is taken up and credits are purchased a unique Credit Certificate will be issued to the developer by Stour Environmental Credits detailing of the quantum of credits purchased, the housing development to which the credits can be used to offset nutrient loadings, and the date from which occupation of new housing developments can take effect (based upon the point at which the mitigation scheme will be operational). In addition, each individual credit will be provided with a unique credit reference number so it can be tracked and accounted for at all times.

To ensure the quantum of credits traded never exceeds the quantum of mitigation secured credits will be tracked via two management systems. The invoicing systems supporting the sale of credits through Stour Environmental Credits will automatically reduce the quantum of credits 'in stock' as units of mitigation are sold to developers. To supplement this a Credit Register will be maintained tracking each credit via an individual unique credit reference, associated to the specific planning application and the Credit Certificate issued in respect of that development.

The mitigation schemes will be subject to different levels of monitoring and Stour Environmental Credits will have commercial contracts in place with the mitigation providers. This is likely to fall into several different categories. For example, taking a field out of agricultural use or the use of cover crops is likely to only require a visual check, ranging through at the other end of the scale to monitoring in more detail the performance of an integrated constructed wetland.

A six-monthly monitoring report will be provided by Stour Environmental Credits setting out the position in relation to strategic and operational monitoring of credits, alongside the operational effectiveness of mitigation schemes. This will be issued to Natural England and the Local Planning Authorities who are members of Stour Environmental Credits. This will revert to an annual report from 2027/28, once processes regarding credit trading have become fully embedded. An ongoing dialogue will be maintained with Natural England and the Local Planning Authorities during this period to discuss the monitoring and broader operation of the scheme, providing confidence in the products and processes associated with credits traded by Stour Environmental Credits.

3 Conclusion of the Appropriate Assessment

3.1 Formal conclusion of the Appropriate Assessment

This Shadow Strategic Appropriate Assessment is concerned solely with water quality impacts from overnight accommodation within the Stour catchment. Other impacts on Habitats Sites, such as increased recreational pressure, should be assessed separately.

The Competent Authorities, as defined under the Regulations, are Ashford Borough Council and Canterbury City Council, for planning applications within each Councils' respective area. The appropriate nature conservation body is Natural England.

This formal conclusion is provided on behalf of these Local Authorities under Regulation 63 (1) of the Habitats Regulations. The assessment is made collectively for all planning applications for residential developments in the Stour Catchment, whether already made but undetermined, or anticipated to be made. Development of a dwelling includes new-build dwellings, conversion of buildings in other use into dwellings, subdivision of one dwelling into two or more dwellings, or one traveller pitch.

So long as the quantum of credits purchased from Stour Environment Credits is sufficient to mitigate the nutrients generated by the development (to be confirmed by the Local Planning Authority through statutory consultation with Natural England) it will be possible to ascertain that the proposed development will have no adverse effect of the integrity of Stodmarsh, acting alone or in combination with other development.

3.2 Formal approval of this Shadow Strategic Appropriate Assessment – to be completed when appropriate.

3.2.1 3.2.1 Stour Environmental Credits Ltd endorsement

This approach to the delivery of mitigation measures contained within this Shadow Strategic Appropriate Assessment was approved by the Stour Environmental Credits Ltd Board.

The Board:

(i) Confirms that the Board will, until such time as the responsibility falls to others, adopt a strategic approach to secure in perpetuity measures to help a proportionate scale of development be phosphorus and nitrogen neutral in the Stour catchment. This will sit alongside temporary and impermanent solutions based on phosphorus and nitrogen neutrality requirements to 2030;

(ii) Confirms that the strategic approach will include monitoring with annual reporting (six-monthly until 2027/28), to take evidence led approach to ensure that phosphorus and nitrogen offsets arising from the measures secured keep pace with the credits that have been released by the company;

(iii) To work effectively with Natural England, including alongside their credit-based system of Nutrient Neutrality mitigation.

STOUR ENVIRONMENTAL CREDITS LTD

4 Appendix A

Endorsed Mitigation Schedule

Endorsed Mitigation Schedule

The following Plan sets out the details of the mitigation that Stour Environmental Credits Ltd have secured to provide phosphorus and nitrogen credits to selected developers in the Stour catchment.

Mitigation		Nutrient Yield TP kg/yr	Nutrient Yield TN kg/yr	Catchment	Type	Date Added to this AA
Tranche one	*Septic Tank Upgrades*	500kg/yr (TP)*		Stodmarsh	STP	25/02/2026

* A 5% buffer will be applied to the TP & TN generated and maintained by SEC to cover any issues with the mitigation generated. Therefore, only 95% of the credits generated will be traded by SEC.