

Stodmarsh Nutrient Mitigation Strategy

Introduction

The Stour Valley Catchment and Stodmarsh National Nature Reserve is currently impacted by excess nitrogen and phosphorus from waste water discharges, which is negatively impacting the nationally and internationally important wildlife sites located there. In 2020, Natural England advised that any new housing in the area must not result in additional nutrients (nitrogen or phosphorus) entering the River Stour catchment to ensure no adverse impact on Stodmarsh. As a result, new housing delivery in East Kent is being held up.

Figure 1 below shows the planning applications for dwellings, both major and minor, for Ashford Borough Council and Canterbury City Council, the two most affected planning authorities, from 2014 to 2024. There is a noticeable decline from 2020, when nutrient neutrality was first required.



Figure 1 Planning applications granted for minor and major dwellings

This is having a significant impact on economic growth of the local economy and service provision in East Kent. Small developers are significantly affected by this, as they are less able to deliver sites outside the affected areas. It is also slowing the delivery of social housing.

Additionally, it means that affected LPAs are at risk of not meeting their five-year housing land supply targets. Both Ashford and Canterbury have large areas in the catchment and significant growth planned in these areas, they also have significant areas outside the catchment, where less development is planned. Nutrient neutrality means that planned development in identified growth areas cannot be delivered, providing support for planning appeals for unplanned developments outside the catchment. This is undermining the planned approach to housing delivery and other associated infrastructure.

Table 1 outlines the houses currently awaiting planning approval due to nutrient neutrality as of May 2023.

Table 1 Houses currently awaiting planning approval due to nutrient neutrality

	Ashford	Canterbury	Folkestone	Maidstone	Swale
The number of dwellings consented with nutrient mitigation	726	5,000	8,554	0	0
The number of dwellings held up because of nutrient neutrality	5,190	1750	3	202	0

Many existing wastewater treatment works in the catchment will be upgraded by 2030, which will reduce the additional nutrients that arise from new houses they serve. However, these system upgrades will not solve the problem and Stodmarsh will continue to be impacted by excess nutrients.

Providing mitigation for these nutrients in the Stour catchment is a significant challenge. There are only limited sources of phosphorus in the catchment, as it is predominantly from wastewater. Improving the management of wastewater is the best option for delivering phosphorus mitigation. Nitrogen mitigation is slightly easier to achieve, as there are significant sources of nitrogen from agricultural land in the catchment, which gives the option of managing land differently to reduce nitrogen inputs (there is only limited phosphorus applied to the land in the Stour catchment).

To date, partners have worked together to consider how these issues can be mitigated and how new housing can be delivered that does not increase nitrogen or phosphorus in the catchment. In 2024, this work resulted in government awarding the catchment £9.8m from the Local Nutrient Mitigation Fund for mitigation measures in the catchment. Our award is the joint highest alongside the River Avon catchment (as shown in Annex A), which illustrates the national importance of this area. To meet the requirements of this funding, a coherent strategy for housing delivery needs to be agreed by March 2025.

Strategy

Managing the issues faced within the catchment requires a holistic approach and commitment from stakeholders across the public and private sector to delivering homes with planning permission.

This strategy identifies the main programme of works to achieve mitigation, with flexibility to deliver different components and seek innovative solutions to achieve the stated outcome of new houses granted planning permission.

The strategy in the Stour is in two parts depending on the size of the potential new development. Large developments of over 300 properties will be required to provide mitigation on site, likely in the form of on-site wastewater treatment works. This should be possible at a reasonable cost. This approach has been taken at a number of sites that have

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achieved planning permission, including Mountfield Park, Otterpool, Hoplands, and Kingsnorth Green.

Small developments of less than 300 properties cannot follow this approach, as the space requirements are too significant and they will not meet the minimum housing numbers for a treatment works to work effectively. A catchment wide approach is therefore required to provide mitigation for small developments.

Table 2 shows the projected mitigation requirements for small developments in the catchment up to 2030 and between 2031 and 2040. The mitigation figures from 2031 onwards are lower due to the improvements in WwTW performance required by the Levelling Up and Regeneration Act 2023. Up to 2030 Temporary credits will be required by developers to mitigate the higher nutrient values within the catchment. After 2030 only permanent credits will be required by developers as the nutrient values within the catchment will be lower.

Developers seeking planning permission up to 2023 will be required to purchase both temporary and permanent credits for the life of their development.

Table 2 Nutrient mitigation requirements for small sites up to 2040

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

There are a number of options for providing this mitigation but the scale remains challenging. Wetlands that either treat effluent from wastewater treatment works or from water abstracted from the river, septic tank replacement, retrofitting water efficiency measure and floodplain meadow are identified as the most appropriate options for the catchment. Natural England have identified other mitigation options including land use change (e.g. agricultural offsetting), buffer strips, and river restoration, however these are less efficient options. . This mitigation will then generate credits that can be sold to developers to offset the nutrients created by small developments.

Given the limited scale of opportunities for mitigation, however, there is also an opportunity for large developments to over deliver on nutrient mitigation, which can then be used to generate credits and offset nutrients produced by small developments.

Off-site mitigation options must be reserved for sites that cannot achieve on-site mitigation, as the catchment does not have enough nutrient mitigation options to serve all the forecast housing.

Where off-site mitigation options are viable, opportunity to deliver nature recovery, public access and biodiversity net gain should be sought alongside nutrient neutrality.

In the long term the options for restoration of the water environment and nature recovery which can ensure management of nutrients needs to be better understood. The development of innovative approaches to nutrient mitigation through collaboration with the public and private sector will help to deliver sustainable economic growth.

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Delivery

Funding from the Local Nutrient Mitigation Fund to support the delivery of this strategy has been paid to Kent County Council who is the catchment coordinator. The objectives of the funding are to:

- Provide nutrient mitigation in the Stodmarsh catchment through mitigation schemes
- Deliver schemes that create credits, not buy credits that already exist
- Sell nutrient mitigation credits to developers delivering housing in the catchment
- Ensure benefiting developments that need credits from the catchment scheme cannot mitigate nutrients on-site following exhaustive consideration of all possible options.

The Local Authority catchment partners will bid for this funding via a non-competitive bidding process to invest in schemes that deliver against these objectives. Bids will be required to:

- Detail the proposed mitigation measures in the Stodmarsh catchment they are seeking funding for
- Demonstrate the kilograms of phosphorus and nitrogen the proposed mitigation will achieve
- Provide a technical assessment that includes the calculations based on the Natural England nutrient budget calculator
- Set out the quantity of credits to be generated and the approximate number of houses that will be released and over what timeframe (development sites are subject to individual nutrient budgets and therefore housing numbers will vary).
- Set out how the mitigation measures will be monitored and reported in perpetuity
- Confirm whether credits will be interim/bridging (up-to 2030), in-perpetuity or both
- Confirm that the measures accord with the Habitat Regulations Assessment (HRA) requirements.

The funding must be recycled and returns generated from the sale of credits will either be recirculated by the bidder into the purchase of additional mitigation measures or will be returned to KCC to be reallocated to further bids. Bidders will be required to set out their proposed arrangements for the recirculation of credit returns.

Ashford Borough Council and Canterbury City Council have formed a joint venture company, Stour Environmental Credits Ltd to deliver mitigation and generate credits to release housing across the catchment but primarily within their own districts. The local authorities within the catchment that do not use Stour Environment Credits Ltd will be able to bid to deliver mitigation within their own districts.

The grant agreement for funding will be with the Local Authorities and conditions will be placed on how the grant is spent, monitored and recovered in the event that it is not spent.

The grant and any returns from it must be invested locally on nutrient mitigation schemes for the whole catchment. There is currently only a limited credit market available to developers, priority will be given to bids that can realise mitigation measures quickly to unlock housing which is currently blocked.

The recycling of returns will continue until nutrient mitigation is no longer required. At this point, any residual funding must be invested in measures to aid the restoration of Stodmarsh

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to a favourable conservation status and secondarily to be invested in the objectives of sustainable development and promoting public access to nature.

The mitigation measures may provide wider benefits, including biodiversity credits, however, the schemes that are funded must provide nutrient credits.

Table 3 contains a summary of the mitigation measures that bidders may pursue. The mitigation detailed is based on permanent credits, post 2030 following upgraded waste water treatment works performance.

The table provides detail of the maximum potential for total phosphate and total nitrogen that can be achieved by the mitigation measure based on desktop analysis and the catchment average nutrient budget. The number of dwellings is also the maximum that could be released based on the available nutrient budget.

As shown, septic tank upgrades and floodplain meadows have significant potential within the catchment. The total figures for these two measures are unlikely to be achieved, however the total mitigation values go beyond what is required to achieve nutrient neutrality within the catchment. However, this illustrates the potential for septic tank upgrade and floodplain meadows to solve nutrient neutrality and delivery the strategy for the Stodmarsh catchment.

Table 3 Nutrient Mitigation Values

Mitigation	Total Phosphorus (KG)	Total Nitrogen (KG)	No. Dwellings (Post 2030)
Retrofitting	40	1850	1,250
Septic tank upgrade	4000	38000	55,072
Floodplain Meadows	15573	169160	245,160
Wetlands	8000	13000	18,841

Governance

The Executive Working Group of Kent County Council, Ashford Borough Council, Canterbury City Council, Folkestone and Hythe District Council, Maidstone Borough Council, and Swale Borough Council will be joined by Dover District Council and Thanet District Council as independents to form a review panel with oversight of the strategy and to assess bids. The panel will be subject to the terms of reference set out in Annex B.

A technical assessment of bids will be undertaken by the consultancy Water Environmental Ltd, who have been commissioned by Kent County Council since 2022 to provide technical guidance for the development of nutrient neutrality in the Stodmarsh catchment. Bids will also be reviewed on the basis of any wider benefits the mitigation can achieve including

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creating space for nature and recreation as well as offering new income streams for landowners.

This will inform the panel who will review and vote on the submitted bids and the recommendations will then go through the internal governance process of Kent County Council to arrange the transfer of funding.

Kent County Council is the accountable body for the Local Nutrient Mitigation Fund monies and will ensure that spend complies with their rules for procurement and spending activity set out in their document 'Spending the Council's Money' .

The Executive Working Group will oversee this strategy, its progress and agree any amendments to it.

The Officer Group of Kent County Council, Ashford Borough Council, Canterbury City Council, Folkestone and Hythe District Council, Maidstone Borough Council and Swale Borough Council is responsible for the day-to-day delivery of the Strategy, including the prioritisation of credits.

Prioritisation of credit allocation

As mitigation schemes are delivered, the generated credits will be available to sell to developers. The amounts required will differ, as will the amounts mitigated by various mitigation measures, as detailed in Table 3. A key challenge in implementing the strategy will be the allocation of a potentially limited number of credits as the credit market is established.

Where districts are enabling the creation of nutrient credits through their own actions (for example retrofitting) in respect of their own stock (land or buildings), then they will determine when and how those credits are utilised in releasing schemes within their districts.

However, with a view to the availability of nutrient credits from strategic mitigation schemes, including those generated by the Stour Environmental Credits Ltd, this will require further discussion as to how those credits should be apportioned to developments across the catchment where there are insufficient credits available to release all potential schemes at any point in time. Table 4 below identifies key criteria that will be used as an objective mechanism for prioritising the release of development proposals so that this can present a consistent approach to the development market and mitigate the risk of applicants playing one authority off against another.

Where on-site mitigation is not possible, a scoring scheme is proposed based upon the matrix set out in Table 4.

Table 4 Draft credit prioritisation scoring matrix

Development	Score range	Score allocation
Regeneration sites where the objective meets a council vision, objective policy or strategy relating to regeneration (not solely housing delivery)	0-100	The scoring will reflect the importance of the scheme to regeneration as set out in an adopted or emerging Plan or strategy.

Development	Score range	Score allocation
A social housing scheme promoted by a Registered Provider or Council	0-100	A scheme that would deliver 30% affordable housing would be awarded a score of 30 whilst a 100% affordable housing scheme will be awarded 100
Schemes that are ready to be delivered within 6 months to a year - where all matters resolved and s106 requirements been secured	0-100	A scheme that is ready to be delivered in 6 months will be awarded 100% whilst a scheme that is ready to be delivered in 12 months will be awarded 50%

The matrix above will be refined as this strategy is delivered but the principle of such an approach will be followed.

Stodmarsh restoration

The ultimate goal is for Stodmarsh National Nature Reserve to be in favourable condition. This would remove the need for nutrient neutrality and Stodmarsh would be a healthier environment for the native species. Nutrient neutrality does not help Stodmarsh to recover, it serves to prevent it from further decline.

Directly supporting the recovery of Stodmarsh is something that we are considering in the catchment. Natural England is responsible for the management and maintenance of the lakes and for developing and implementing the recovery plan. Natural England is currently developing a recovery strategy for Stodmarsh,.

This approach would help to address the longer-term issue that mitigation options will be increasingly difficult to find, and the cost of mitigation will hamper economic growth in East Kent. The recovery of Stodmarsh is the best approach to manage this.

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Annex A: Table of successful Local Nutrient Mitigation Fund

Nutrient catchment	Lead local authority	Local Nutrient Mitigation Fund round one maximum
River Camel	Cornwall County Council	£2 m
Poole Harbour	Dorset Council	£4.63m
Solent and River Itchen	Fareham Council	£9.6 m
River Lugg (sub-catchment of the River Wye)	Herefordshire County Council	£1.76 m
Stodmarsh	Kent County Council	£9.8 m
Norfolk Broads	Broadland District Council	£9.6 m
Somerset levels	Somerset County Council	£9.6 m
River Avon	Wiltshire Council	£9.8 m

Annex B: Nutrient Neutrality Executive Working Group Terms of Reference

Purpose

The Nutrient Neutrality Executive Working Group will provide oversight and strategic direction for the delivery of nutrient mitigation in the Stour catchment and agree the strategy for nutrient mitigation. The group will agree how funding for nutrient mitigation is allocated in the catchment, in accordance with the strategy, and oversee the delivery of nutrient mitigation measures. The group will escalate any matters or decisions as required.

The members of the Executive working group will be responsible for communicating the nutrient mitigation strategy to their authorities, including Chief Executives and Leaders, and for ensuring that their authorities act consistently with the strategy.

Membership

The Executive Working Group will consist of senior officers from Ashford Borough Council, Canterbury City Council, Folkestone and Hythe District Council, Maidstone Borough Council and Kent County Council. Dover District Council and Thanet District Council will be invited as independent members to support the decision making process for funding bids.

Current members are:

Matt Smyth, KCC - Chair
Peter Davies, CCC
Ben Lockwood, ABC
Ewan Green, FHDC
William Cornall, MBC

The Executive Board is supported by:

Louise Smith, KCC, the catchment coordinator for the Stour catchment.
Guy Laister, Water Environment Ltd, a consultant working for KCC and other LPAs in the catchment.

Other groups

Planning officers meet regularly (currently fortnightly). This group will continue to provide direction on planning matters relevant to nutrient neutrality. The Executive Group will provide direction to the planning group as necessary.

Other groups may also be need to cover other aspects of nutrient mitigation delivery. These will be established as needed.