

Stodmarsh and Nutrients – None Technical Summary on Natural England’s Nutrient Neutral Methodology Advice for Stodmarsh November 2020



Nesting Bittern

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Background

Stodmarsh is a series of wetlands and lakes in the floodplain of the river Stour that are internationally protected for the habitats and the wildlife they support. Part is also a National Nature Reserve providing important access to nature and tranquillity for visitors. The nutrients in some of the Stodmarsh lakes are too high and are failing their agreed standards for both nitrogen and phosphorous; impacting the important wildlife. The nutrients are from both the land, including urban and farmland, as well as from the existing wastewater treatment works discharges that drain into the river Stour.

Since 2006 Advice has been provided by [Catchment Sensitive Farming](#) partnerships to help farmers reduce their contribution to the nutrients in the Stour Valley in particular nitrogen. However the contribution of phosphorous from farming is relatively small. There is an investigation into the existing wastewater treatment works discharges to assess how to reduce this source of nutrients that will report in 2022.

Planning authorities have legal duties to ensure they consider the impacts of development upon internationally protected wildlife and habitats such as Stodmarsh, particularly where those sites are already impacted. To help planning authorities ensure they are not adding to the existing nutrients, Natural England has produced a nutrient neutral methodology, issued first in 2019, with an update in July 2020. The methodology is a simple, pragmatic approach to calculating the net nutrient change resulting from new developments.

How the methodology works

The methodology is a four stage process to calculate a nutrient budget for a proposed development. The aim is to achieve no net increase in nutrients (nutrient neutrality) from development. This is one way to meet the need for certainty when protecting the wildlife of Stodmarsh required by legislation and case law. The four stages are set out in the flow chart in Figure 2 and are summarised below. Figures for completing each stage are provided in the methodology along with worked examples.

Stage 1 is a 4 step process to calculate the total nitrogen or phosphorous that would be discharged via Wastewater Treatment Works (WwTW) into the Stodmarsh catchment.

Stage 1: step 1 -Calculate the additional population

Stage 1: step 2 -Confirm water use in the new developments

Stage 1: step 3 -Confirm likely WwTW and likely permit level

Stage 1: step 4 -Calculate nutrients (Total Nitrogen (TN) and Total Phosphorous (TP)) in Kg per year that would be discharged after treatment from the proposed development’s wastewater

STODMARSH AND NUTRIENTS – NONE TECHNICAL SUMMARY

Stage 2 is a single step to calculate the nutrients coming from the existing land use in the development site based on values provided in the methodology.

Stage 3 is to calculate nutrients for that will leach from the proposed development's land use (sources other than sewage) based on values provided in the methodology.

Stage 4 is to calculate the total change in nutrients as a result of the development which is Stage 1 +/- the difference in Stages 2 and 3.

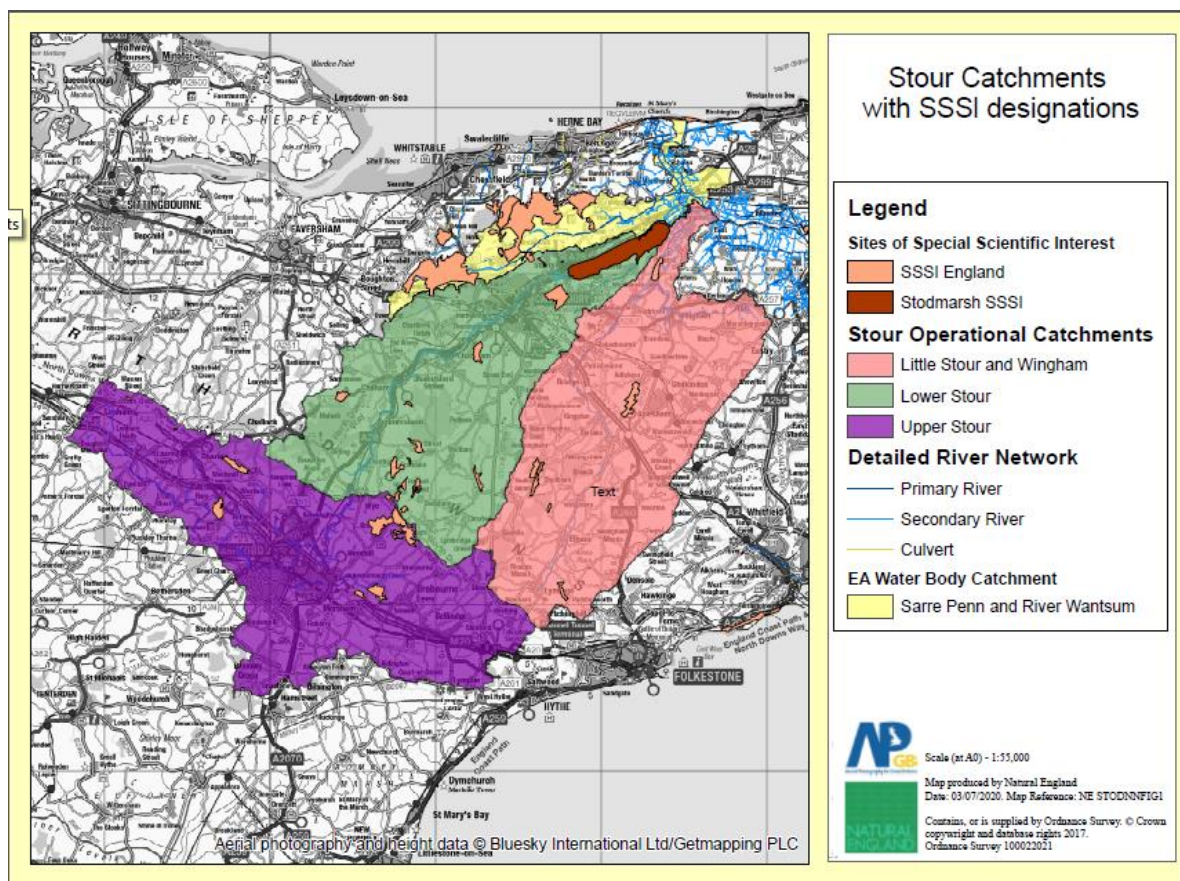
Mitigation - If stage 4 results in an increase in nutrients from the proposed development mitigation will be required. Some mitigation options are described in the methodology. Mitigation can reduce the nutrients leaving the development or WwTW from the development, intercept the nutrients before they reach the site and offset the additional nutrients by changing land use in one part of the catchment to a use that leaches lower nutrients. Creation of habitats to intercept or offset nutrients is particularly encouraged as the low nutrient land uses can also provide other benefits for people such as carbon sequestration, public greenspaces, more wildlife and reducing flood risk.

Where does the methodology apply?

Stages 1 and 4 apply to all housing whose wastewater goes to treatment works that discharge into the Stodmarsh catchment shown on figure 1. A list of these existing water company WwTW works is given in appendix 1 of the full methodology. Stages 2 and 3 of the methodology apply to all housing development whose boundary is within or partially within the area mapped on figure 1.

Figure 1

Note developments outside of these boundaries may drain to Wastewater Treatment Works inside these boundaries.



Where can I find more information?

| Extra information | Where can I access this information? |
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| A copy of Natural England’s advice on nutrient neutral methodology | Available on request from your local planning authority. |
| Advice on application of the guidance in the form of a frequently asked questions document. | Available on request from your local planning authority. |
| More information on National Nature Reserve | National Nature Reserve information can be found here |
| More information on the nationally and internationally protected wildlife of Stodmarsh | On the following links for birds , wetlands and rare animals |
| More information on the legal process for assessing plans and projects that could affect European sites | Guidance on Habitat Regulations Assessments |
| Maps of protected wildlife sites and their condition. | Magic Map website |
| An important legal ruling that can relate to Natural England’s advice on Stodmarsh referred to as the Dutch nitrogen ruling. | Dutch Nitrogen Ruling |

Nutrient Assessment methodology – Flow Chart

