



Mr R Needham
1 Feedhams Close
Wivenhoe
COLCHESTER
CO7 9HZ

Our ref: AE/2014/117438/01-L01
Your ref: *
Date: 30 April 2014

Dear Mr Needham

NEIGHBOURHOOD PLAN ENQUIRY WIVENHOE

Thank you for consulting the Environment Agency on the future Wivenhoe Neighbourhood Development Plan.

Our principal aims are to protect and improve the environment, and to promote sustainable development, we:

- Act to reduce climate change and its consequences
- Protect and improve water, land and air
- Work with people and communities to create better places
- Work with businesses and other organisations to use resources wisely

You may find the following two documents useful. They explain our role in the planning process in more detail and describe how we work with others, in particular:

- an overview of our role in development and when you should contact us.
- initial advice on how to manage the environmental impact and opportunities of development.
- signposting to further information which will help you with development.
- links to the consents and permits you or developers might need from us.

Building a better environment: Our role in development and how we can help:
<http://www.environment-agency.gov.uk/research/planning/142517.aspx>

Environmental Quality in Spatial Planning <http://www.environment-agency.gov.uk/research/planning/33102.aspx>

Please also find attached to this e mail our document “Planning for the environment at the neighbourhood level.”

We trust you find the following advice helpful.

Foul water disposal

Future developments should only be brought forward following consultation with the sewage network provider to ensure there is enough capacity in the sewer system to accommodate the increased sewage flows. Wivenhoe is served by Colchester Sewage Treatment and there are no known issues.

River Colne Water Framework Directive Status

Please find attached the evidence map for the Colne operational catchment which is made up of 17 waterbodies, previously 28 as new lines have been drawn for the 2nd River Basin Management Plan. Below is an extract from the evidence report regarding the overall summary.

‘This summary covers the main River Colne valley and main tributaries including Stambourne, Toppesfield and Bourne Brooks and Salary Brook. Much of the catchment is currently at less than good status/ potential overall and so measures need to be identified and implemented in order to improve status to good overall by soon as possible before 2027.

The most common reasons for failure across the catchment are phosphorus and morphology (river shape and form). Much of the catchment also has issues with hydrology or river flows, but hydrology does not drive the classified status. A number of the tributaries also have fish and dissolved oxygen failures, all of which could be linked to the morphology and/ or hydrology pressures.’

Certain developments that impact on these waterbodies may require a Water Framework Directive Assessment, Article 4 *Environmental objectives*, requires that all surface waterbodies should achieve good ecological and chemical status unless they are artificial (AWB) or heavily modified (HMWB) in which case they should achieve good ecological potential. Groundwater bodies must achieve good quality and quantity. All water bodies must achieve the appropriate objective in accordance with the RBMP and before the end of 2027.

Flood risk

In accordance with the National Planning Policy Framework Planning Practice Guidance for Flood Risk and Coastal Change the Neighbourhood Plan should be informed by an appropriate assessment of flood risk.

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Further guidance can be found within the Planning Practice Guide <http://planningguidance.planningportal.gov.uk/> under ID 7-061-20140306.

Flood risk and surface water flood risk maps are attached.

Development in flood zones are required to pass the Sequential and Exception tests. Paragraph 101 of the NPPF states that "the aim of the Sequential Test is to steer development to areas with the lowest probability of flooding. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding."

It is the responsibility of the local planning authorities to apply the Sequential Test to planning applications located in Flood Zones 2 or 3.).

If, following application of the Sequential Test, the Exception Test can be applied to show wider sustainability objectives and that the flood risk can be safely managed.

Further guidance on development and flood risk can be found here https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296965/LIT_9002_5a96ba.pdf

The flood outlines in the attached map show areas of potential flooding as a direct result of floodwater coming from rivers or sea and the potential for surface water flooding. They do not show the risk of flooding to individual properties, because we do not hold this data.

Flood Zone 1, (i.e. a less than 0.1% annual probability of flooding).
The Flood Zone 2 outline shows a 1 in 1000 chance of flooding at a location in any one given year (i.e., a 0.1% annual probability of flooding).
The Flood Zone 3 **fluvial** outline shows a 1 in 100 chance of flooding at a location in any one given year (i.e., a 1% annual probability of flooding).
The Flood Zone 3 **tidal** outline shows a 1 in 200 chance of flooding at a location in any one given year (i.e., a 0.5% annual probability of flooding).

Examinations of our records of historic flooding show that the general area of Colchester was flooded in 1947. Please note that these records show flooding to the land and do not necessarily indicate that properties within the historic flood events were flooded internally. It is also possible that the pattern of flooding in this area has changed and that this area would now flood under different circumstances.

Our flood map for surface water is indicative and, therefore, should not be used to determine flood levels. However, this map should be used as a prompt to undertake further investigation and determination of flood risk, particularly where there are historic flooding issues.

Modelled flood level information for this area is available from our Partnership and Strategic Overview Team. To obtain the flood levels you can send an

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'information request' to our Corporate Services Department via corporate.services@environment-agency.gov.uk. Please be aware there may be a charge for this information and there are license agreements for how the data can be used.

Addition detail is available from the Halcrow (2010) Colne and Blackwater Estuary Model Update. The flood zone map shows areas of Wivenhoe to be within an Area that Benefits from Flood Defences, this is due to the protection of Colne Barrier. The undefended (without defences) levels give the baseline risk.

Any assessment of flood risk should refer to the **Strategic Flood Risk Assessment** for Colchester. The SFRA mapping and outputs will help illustrate what could happen in the event of a breach or failure to operate the Colne Barrier in a design flood or extreme flood scenario (and for climate change scenarios).

We have no maintained defences upstream of the Colne Barrier.

Model outputs and flood levels for the Wivenhoe Town Drain are available. During heavy rainfall events, there are known flooding issues within the within the fluvial network of inadequately sized culverts and drains on Queen's Street and further downstream at the railway bridge and also the culvert under Brook Street. This arises from a number of sources including overland flow and surface water flowing down the roads, unable to enter the highway drains on Queens Street, inadequate culverts, inadequate capacity within the open section of the drain and tidelocking.

We are aware that significant improvements have been undertaken by highways.

The Lead Local Flood Authority, Essex County Council, may have further localised flood risk information.

Other sources of information such as Catchment Flood Management Plans and Surface Water Management Plans are available from the following link <https://www.gov.uk/government/policies/reducing-the-threats-of-flooding-and-coastal-change/supporting-pages/managing-the-risks-of-floods-and-coastal-change>

Paragraph 7-057-20140306 of the Planning Practice Guidance, Flood Risk and Coastal Change states that even with defences in place, if the probability of inundation is high, safe access and egress should be maintained for the lifetime of the development. In locations where there is a residual risk of flooding due to the presence of defences, judgements on whether a proposal can be regarded as safe will need to consider the feasibility of evacuation from the area should it be flooded.

Surface Water Management

New development surface water drainage schemes must be designed to

prevent an increase in flood risk on the site or elsewhere

If infiltration methods are suitable; priority should be given to the use of Sustainable Drainage Systems in accordance with paragraph 103 of the NPPF.

We do not provide comment on any surface management associated with a development of less than one hectare. All sites under 1ha, whether in the flood zones or not, the local planning authority should determine whether a proposed surface water drainage strategy will ensure that the surface water will be managed in accordance with the requirements provided in our Flood Risk Standing Advice and that priority is given to the use of SUDS.

The Flood and Water Management Act 2010 places a duty on the LLFA to approve adopt and maintain Sustainable Drainage Systems. The LLFA is required to establish a SUDS Approval Board to approve all developments that have drainage implications. If the drainage is sustainable, serves more than one property and is approved, the SUDS Approval Board must adopt it. The approval process will run parallel with any planning application and development may not commence without drainage approval from the SUDS Approval Board.

Flood Defence Consents

Under the terms of the Water Resources Act 1991 and The Land Drainage and Sea Defence Byelaws, our prior written consent for any proposed works or structures, in, under, over or within 9 metres of the top of the bank of a designated 'main river'. Any proposed structures and/or landscaping within 9 metres of the top of the bank or foreshore will therefore require Flood Defence consent from us. Erection of flow control structures or any culverting of an ordinary watercourse requires consent from the LLFA.

Protection of the water environment

Future development should consider the potential impact on groundwater/surface water quality through the mobilisation of any potential contaminants that may be present in the soil/groundwater associated with the previous land use, and the release or discharge of any potential contaminants associated with operation of the development, including the disposal of any potentially contaminated surface water run-off, with suitable mitigation measures employed to eliminate or minimise the potential impacts.

In that regard, for issues associated with development that may have a potential impact on groundwater, such as the discharge of liquid effluents into the ground, land contamination, brownfield redevelopment, cemetery development, etc, reference should be made to our requirements as set out in position statements contained in our "Groundwater protection: Principles and practice" document (GP3, Version 1.1, August 2013).

Ecology

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We would recommend that there is an appropriate buffer zone between any proposed development and the Upper Colne Marshes SSSI .This SSSI consists of grazing marshes with associated ditch and open water habitats which contain an outstanding assemblage of nationally scarce plants with an un-usual diversity of brackish ditch types, terrestrial and aquatic invertebrates as well as breeding and wintering birds.

The Blackwater & Colne transitional water body is currently classed as being at 'moderate ecological potential' with the objective of achieving 'good potential' by 2027. Mitigation measures required to achieve good potential include the removal of hardbank/revetment or replacement with a soft engineering solutions.

Please note that the view expressed in this letter by the Environment Agency is a response to the scoping of the proposed Neighbourhood Development Plan only and does not represent our final view in relation to any future planning or permit applications that may come forward. We reserve the right to change our position in relation to any such application.

Please contact me on the details below should you have any questions or would wish to contact any of our specialist advisors. Please continue to keep us advised on the progress of the plan.

Yours sincerely

A handwritten signature in black ink that reads "Graham Steel". The signature is written in a cursive style with a large, prominent 'S' at the end.

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