Ickham, Littlebourne and Wickhambreaux Conservation Society Submission to the Local Plan 2045 consultation.

Appendix 1

Habitat Regulation Assessment of Local Plan 2045

Comments from Timothy Bostock, Littlebourne, Nov 2022.

Summary
This paper focuses on a combination of uncertaintly, doubt and concern expressed by the Local Plan expert consultants (WSP 2022), whilst also considering new evidence provided through local research and citizen science. The focus here is mainly on Policies R15 and R16 although strategic mitigation aspects are relevant to the Plan as a whole.

The conclusion drawn is that the **Draft Local Plan is unlikely to be able to meet the requirements of the Conservation of Habitats and Species Regulations 2017 as amended**. In particular, uncertainty remains as to whether achieving and sustaining nutrient neutrality is economically viable and/or technically feasible for the scale of development proposed and given current weaknesses in wastewater management infrastructure and management.

The Local Plan cannot defer such strategic matters of legal consequence to later planning stages because in its current form and with current knowledge the **Plan is not legally deliverable and therefore should not be adopted**.

The following sections address the range of strategies discussed in the draft Local Plan aimed at tackling polluting nutrients. It discusses the shortcomings of and risks associated with these strategies in light of the nature and extent of the problem specific to the Stour Valley Floodplain (East). While the comments apply to the Plan in general, the specific cases of Policies R15 and R16 are considered.

1. Nutrient Pollution from Policies R15 and R16 (off The Hill and Court Hill, Littlebourne)
The following information is relevant to known contamination pathways that the water-based polluting nutrients, Phosphorus (P) and Nitrogen (N) take from these proposed development allocations. Policies R15/R16 represent a severe risk both to:

a) the integrity of designated sites of international importance which are protected under the Habitats Regulations and to
b) the Stour Valley Floodplain (East) i.e. the diversity of habitats adjacent to the Little Stour chalk stream protected under the Natural Environment and Rural Communities Act 2006 listed as of 'principal importance' under S41.

The Conservation of Habitats and Species Regulations 2017 (as amended - aka Habitats Regulations- HRA) of the Draft Local Plan (WSP 2022) identifies a risk to Stodmarsh SAC/SPA/Ramsar site from phosphorus and nitrogen contained in household sewage/wastewater. The above-mentioned Littlebourne Policies R15/16 are relevant in this regard given that wastewater arising in the village and from elsewhere in the Nailbourne/Little Stour catchment finds its way into Stodmarsh Sites through two routes:

- First, there is a suspected tidal backwash effect from water discharging downstream of Stodmarsh (Little Stour confluence), as noted in Canterbury City Council's 'Draft Nutrient Mitigation Strategy '(Water Environment Ltd, 2022).

- Second, and arguably of far great significance, the regular use of tankers to remove untreated sewage from Littlebourne and other villages to Canterbury WwTW located upstream of Stodmarsh.

In regard to the latter, during increasingly frequent wetter periods of the year Newnham Valley WwTW is unable to cope with high volume sewage flows. High seasonal flows are caused by excessive groundwater infiltration along much of the network which creates a risk of sewer flooding in Littlebourne and other low lying villages along the catchment. This results in regular "emergency measures" taken by Southern Water during these periods. Emergency measures can last many months owing to the persistence of high groundwater levels in the chalk aquifer and have become a 'new normal' in recent years. Although Southern Water have undertaken a rolling programme of work in an attempt to remedy the groundwater infiltration, data has shown that its effect has been limited.
Information on tankering into Canterbury WwTW and the Great Stour has recently been provided under a Freedom of Information request to Southern Water. Data for 2019/21 shows around **10,000 tons of raw sewage transported to Canterbury by some 500 tankers**. This places significant quantities of Littlebourne's wastewater directly upstream of Stodmarsh, ensuring that wastewater from the Newnham Valley catchment and Littlebourne in particular, contributes directly to the nutrient enrichment problems associated with the Stodmarsh sites and therefore jeopardises the achievement of nutrient neutrality.

Capacity ('headroom') issues at both Newnham Valley and Canterbury WwTW were analysed in detail in KCC's recent report "Kent Water for Sustainable Growth" (KWfSG, 2017). Although these issues were seen as surmountable through investment in new treatments and equipment, the context under which the report was considered was entirely different. In this case, the total new housing stock was assumed to be **just 117 dwellings by 2031 for the whole of the Nailbourne/Little Stour catchment.** Evidently this level of development is now far exceeded by the current Local Plan under which some 30-50 times this number of new houses are under consideration. Even considering this previously assumed minimal growth of 117 dwellings for the entire catchment by 2031, Newnham Valley WwTW will still **have a -47% capacity shortfall** (KWfSG report). Newham Valley's current dry weather flow (DWF) permit is 2371m3/day, while the actual flow is 3457m3/day (or assumed 3492m3/day after 117 dwellings growth). Further, there are no Phosphate permit conditions in existence for there WwTW nor for Dambridge works which drains into the Little Stour via the Wingham River.

Southern Water's Drainage and Wastewater Management Plan (2012) referenced by WSP also provides population growth estimates from 2020 to 2050 which are considerably lower than those envisaged under the Local Plan. For example, DWMP data for Wingham Dambridge WwTW indicate 10% growth (or ca 2400 people); for Newnham Valley a 24% estimate (by 1838 people) is used.

In regard to WSP's HRA report, there is only weak recognition of these facts. Using BRAVA data, the report notes that there is "a risk of dry weather flow (DWF) permits being exceeded at Canterbury and Newnham Valley Preston", whereas in fact these are already far exceeded as noted above. Further, the HRA report notes that "virtually all of the proposed allocations will self-evidently have no significant effects alone due to their location, the absence of impact pathways, and their distance from the nearest European sites" (Appendix B). Yet in the case of R15 and R16 we have presented conclusive evidence of direct and contributory impact pathways. As a consequence, the WSP assessment **falls short in weighing up the risks from future nutrient flows on Stodmarsh and other key catchment sites, associated with new development.** An Appropriate Assessment under the Habitats Regulation would be an essential next step in any final evaluation of the Local Plan.

The above discussion and conclusions are also relevant to the following section that addresses mitigation routes presented by the Local Plan.

2. Strategic Mitigation through Constructed Wetlands

In order to mitigate nutrient pollution impacts from Policy R15/R16 and other development allocations in the Draft Plan, the Local Plan adopts a policy-led approach to mitigate nutrient impacts on Stodmarsh and ensure that this issue is appropriately considered at the site level as developments are bought forward. Most of these measures are incorporated in the Draft Local Plan and include the provision of efficient onsite wastewater treatment plants for sites greater than 300 homes, water use efficiency measures, SUDS, etc..

A further essential mitigation approach is the provision of a large area of “strategic, constructed wetlands”. The HRA of the Draft Local Plan (WSP 2022), recognises that such strategic mitigation may be required for some housing development and that nutrient credits could be purchased as part of this strategy. The complex calculations for nutrient budgets and mitigation are addressed under the Mitigation Strategy’s Appendix. These show that nutrient neutrality / mitigation will be achieved using a mix of the policy-led measures and strategic approach using constructed wetlands (roughly 50:50 as far as can be seen from available data).

Included in the Local Plan is Policy C24 - which allocates 15Hectares (Ha) for the construction of such as strategic wetland. However, the Local Plan is misleading in that it states that this 15Ha C24 wetland will “deliver strategic mitigation”. As explained below, it would more appropriately have stated that the 15Ha C24 wetland will “deliver about 10% of strategic mitigation”.

The discrepancy in land area here (ca 90% remaining requirement for constructed wetland) is mentioned only in passing in the later Section 6 - *Habitats of International Importance*: where it notes that “In addition to the allocated wetland at Policy C24, land is **safeguarded** for the delivery of strategic wetlands” (my highlighting). No further information or detail is proffered by the Local Plan on the nature of such “safeguarded" land, nor on the means of initially acquiring and subsequently managing it in perpetuity.

Significantly, the Mitigation Strategy makes an understated reference to the LP’s strategic wetland approach as being “**challenging”**.

It appears that this confusion or obfuscation over land area is introduced by the WSP paper which suggests that the land at C24 is sufficient. Para 7.5.4 of the paper notes that "a 10ha constructed wetland can remove more than 1,500 kg of P yearly, which is greater than the calculated mitigated budget. The site safeguarded under Policy C24 totals 15ha”, a statement which is clearly aimed as suggesting C24’s 15Ha site is sufficient to meet strategic mitigation requirements.

This statement is, however, cut and pasted directly from the Mitigation Strategy paper and is either a misinterpretation or potentially a numerical error: further explanation is needed to conclude which. The context in which the Mitigation Strategy raises this (para 4.32) is in regard to a potentially highly controversial suggestion that effluent from Canterbury WwTW be passed directly into the constructed wetlands. Furthermore, the phosphorus reduction data used by the Mitigation Strategy is inconsistent with their earlier analyses which correctly follow NE’s meta study analysis which indicate removal rates are in fact some ten times lower than the quoted 1500kg/year. For information, the NE meta data show that constructed wetlands have similar appearance and function to natural marshes, and result in median P removal rates of ca. 1.2 g/m2/year - i.e. 12kg/Ha/year or 120kg/10Ha/year, or 180kg/year for the proposed constructed wetland at C24. **Thus C24 would be of an inadequate size. Some 100-150Ha would be more appropriate.**

Several major conclusions can be drawn from this brief analysis:

First, there are **significant inconsistencies in the available data and advice** provided by the various consultancies contracted by CCC for this analysis.

Second, although Policy C24 includes land safeguarded for wetland, this is considered by the HRA as being **well below the overall nutrient reduction requirement identified in the Draft Nutrient**

Management Strategy. The HRA points out that the Local Plan apparently falls short of demonstrating this measure is achievable.

Third, even recognising the last point, there is no indication of the **feasibility for Canterbury City Council to identify, acquire and maintain in perpetuity (at great cost), sufficient land** to comply with the real needs for strategic nutrient mitigation through constructed wetland systems.

Finally, the implication of this is to reinforce the **doubts over the real-world ability of the Local Plan to tackle nutrient neutrality** or indeed derive mitigation approaches that will deliver the LP targets related to environmental protection and sustained improvements in biodiversity. Demonstrating that this is achievable seems to ignore the fact that this would be a necessary part of an Appropriate Assessment under the Habitats Regulations. **The HRA notes that "additional assessment is required with regards to achieving nutrient neutrality for the Local Plan and its HRA.**