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River Axe and the requirement for mitigation to offset pollution impacts

Report summary:

This report highlights the fact that Natural England have advised East Devon District Council that because of the sensitivity of the River Axe, which is designated as a Special Area of Conservation, new planning permissions for new homes, and other developments providing overnight accommodation, should not be granted in the catchment of the river unless they can be shown to be “nutrient neutral”. Similarly plans and projects such as the local plan will need to ensure residential developments provide appropriate mitigation for their impacts on nutrient levels before they can proceed. Whilst we still need to fully understand the issues raised, and full potential implications, in the absence of mitigation this will prevent new homes being granted in the area. It should be noted that a number of other planning authorities in England have received the same advice in respect of designated sites and others were already subject to this advice.

On a more positive note this report highlights some of the very positive actions that are currently being undertaken and suggested in and around the River Axe and in respect of water quality and environmental improvements. This report notes that the Government are offering £100,000 to the authorities within the catchment of the River Axe where the nutrient concerns have been raised to help identify measures to secure nutrient neutrality associated with development. It is proposed that East Devon should become the lead authority in respect of the River Axe noting that the river and its catchment stretches into Somerset and the river rises in Dorset.

Is the proposed decision in accordance with:

Budget Yes No

Policy Framework Yes No

Recommendation:

- 1. That Strategic Planning Committee note the very recent advice from Natural England in respect of the River Axe and nutrient pollution matters that may place an embargo on granting planning permission for new housing in the catchment of the River Axe.**
- 2. That committee delegate authority to the Service Lead – Planning Strategy and Development Management to liaise with Dorset Council, South Somerset District Council and West Somerset and Taunton Council with a view to this authority becoming the ‘lead authority’ to receive £100,000 to coordinate measures to secure nutrient neutrality.**

Reason for recommendation: To ensure that the council is aware the advice of Natural England and can note the potential impacts.

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Portfolio(s) (check which apply):

- Climate Action
- Corporate Services and COVID-19 Response and Recovery
- Democracy and Transparency
- Economy and Assets
- Coast, Country and Environment
- Finance
- Strategic Planning
- Sustainable Homes and Communities

Equalities impact Low Impact

Climate change Low Impact

Risk: Medium Risk; Risk associated with the advice from Natural England are explicitly linked to matters related to possible impacts of reduction in new house building. Until mitigation can be delivered new homes, including affordable homes for local people, might not be built in the River Axe catchment whilst there could be increased pressure for development elsewhere in East Devon; this could be linked to the possibility of the Council's ability to show a five year land supply becoming under threat. The advice from Natural England suggest possible increasing concerns over the water quality of the River Axe and such concerns constitute a risk and a negative in their own right.

Links to background information – See links in the body of this committee report.

Link to [Council Plan](#):

Priorities (check which apply)

- Outstanding Place and Environment
- Outstanding Homes and Communities
- Outstanding Economic Growth, Productivity, and Prosperity
- Outstanding Council and Council Services

1 Background context

1.1 The River Axe, from upstream of Seaton to a point close to the Somerset boundary is designated as a Special Area of Conservation (SAC). This places the designated stretch of river in the highest tier of wildlife sites in the United Kingdom, such sites fall under a 'Natura 2000' classification. The river, however, and through Natural England measures, falls below required standards to fulfil designation status. The fundamental problem is that there are excessive levels of phosphates entering the river and these are resulting in adverse

impacts on the biological make-up of the river and biodiversity value. Members of committee will be aware of these concerns noting that on the 23 February 2021, a report was presented on the River Axe Nutrient Management Plan work, see [Agenda for Strategic Planning Committee on Tuesday, 23rd February, 2021, 2.00 pm - East Devon](#)

- 1.2 Most phosphates entering the river come from agricultural activity including run-off from farmed land. This can amount to up to 70% of the total depending on location within the catchment. Throughout the catchment area livestock account for over 50% of the total phosphate loading into the river. A sizeable amount of the remainder is, however, a result of human activity that is associated with the houses we live in and business premises and buildings we use – or more precisely it is the waste water that is generated. Most sewage and grey water coming from buildings is treated at sewage treatment plants and the post-treatment liquid emissions from these plants enters watercourses. Sewage treatment plants, and this applies to private and domestic scale systems as well as water company plants, will emit some phosphate into the water course, noting that treatment will strip some phosphates out. Below is a diagram illustrating the key sources of phosphates into the SAC; beneath that is an example of the breakdown on phosphate levels at one point within the catchment (Whitford):

Figure 1: Schematic of a water catchment system (river or coastal) showing the pathway for impact (black line) from new residential development, as well as the current sources of nutrient pollution within catchments.

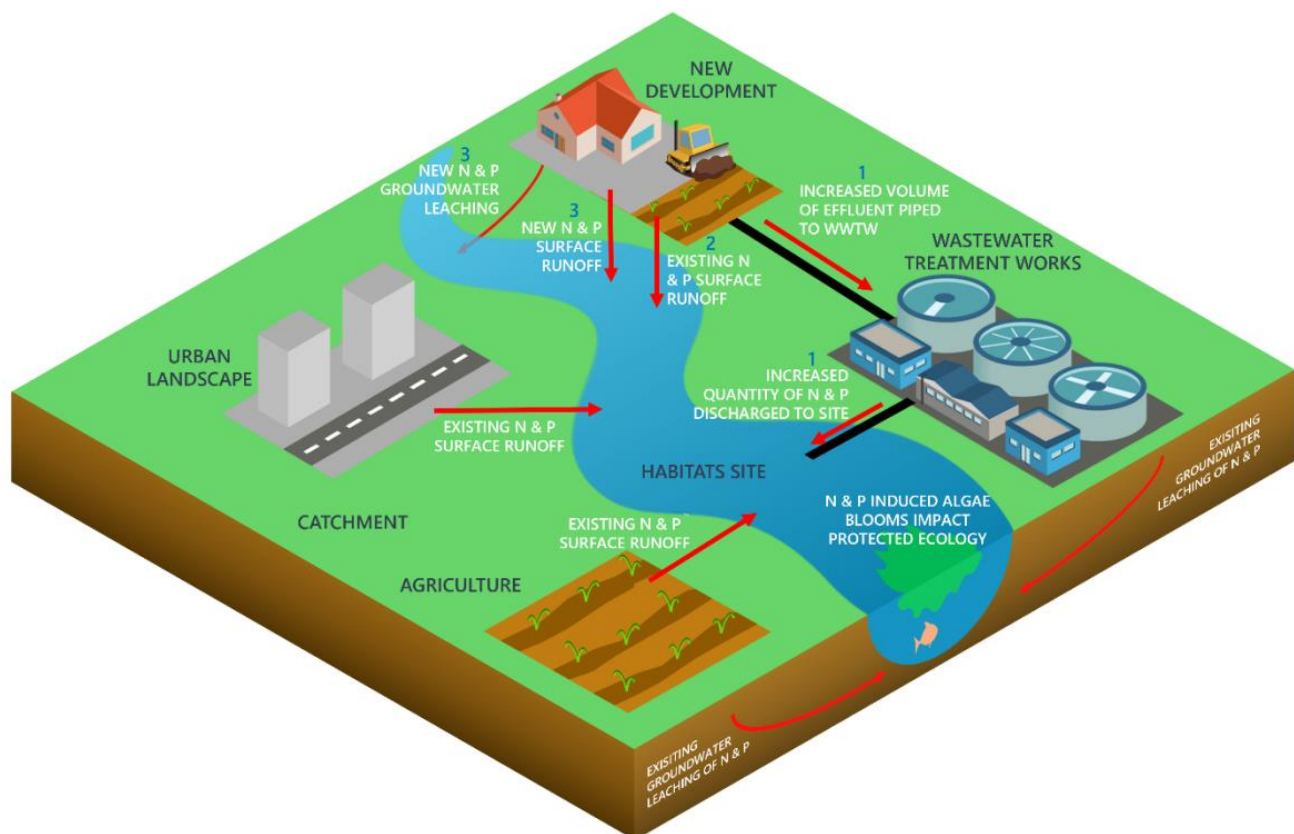
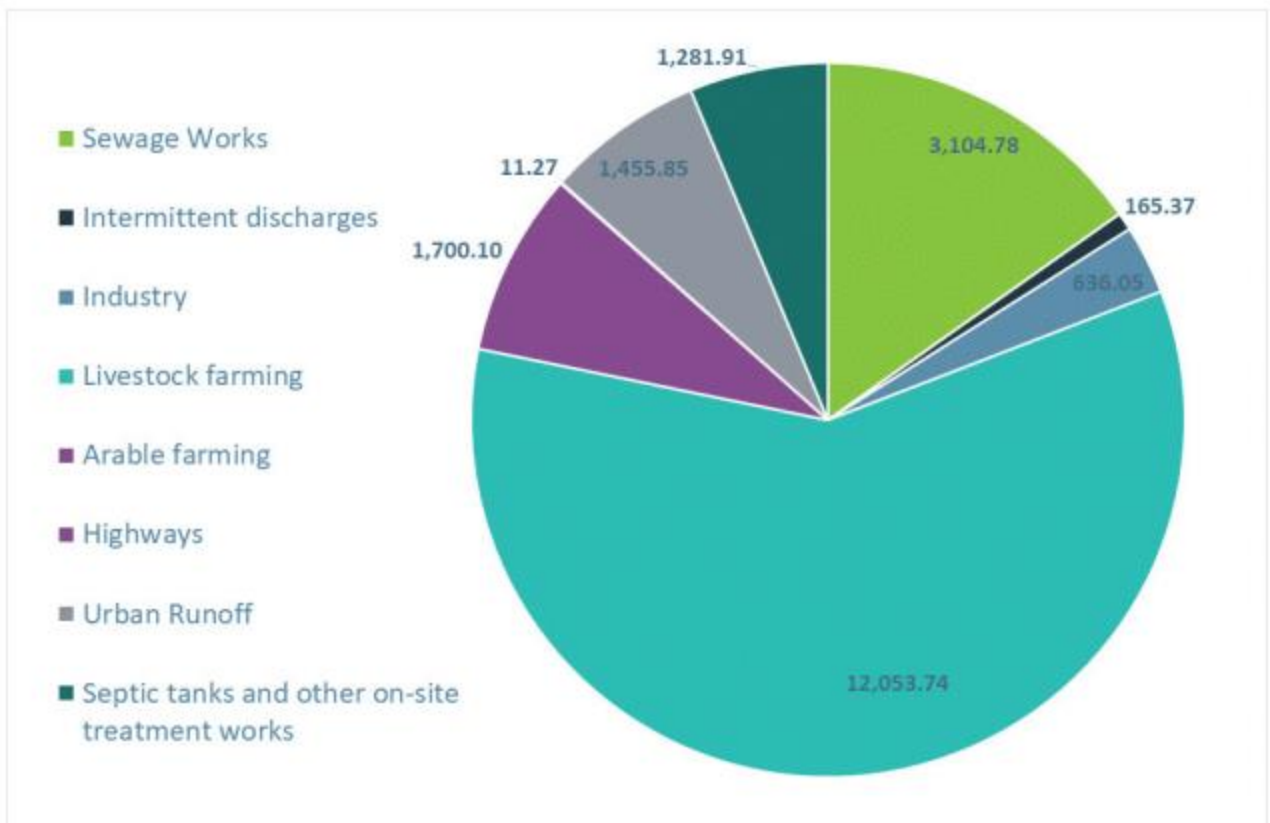


Figure 2.3 SAGIS Phosphate Source Apportionment, kg-P/yr, Axe at Whitford



- 1.3 There is a legal requirement for planning authorities, under the Habitat Regulations, to undertake assessment of any development scheme that could adversely impact on any of the highest tier of wildlife sites, the Natura 2000 sites. In fact the actual requirement applies to any competent authority (that is more than just planning authority) to undertake an assessment of any “plan, policy or proposal” that could lead to adverse impacts. Depending on the results of assessment it may be that planning permission should not be granted unless mitigation measures will be implemented to offset adverse impacts. Members will be aware of the fact that this council (with partners) is already delivering mitigation at and around the River Exe and Pebblebed Heaths (and in Teignbridge at Dawlish Warren) in respect of adverse impacts from recreational impacts on the Natura 2000 sites.
- 1.4 In respect of the River Axe we have been aware of the need for mitigation for some time but this has become a far more critical concern following receipt of communications from Natural England.
- 2 Natural England advice – dated 16 March 2022**
- 2.1 On the 16 March 2022 this council received a lengthy communication from Natural England that set out their detailed concerns in respect of high nutrient levels in a number of rivers and watercourse in England that are designated as Natura 2000 sites.
- 2.2 Natural England are explicitly highlighting the need to follow the legal requirements set out under the Habitat Regulations when assessing planning application and elevated nutrient impact considerations. The key nutrient concerns for the River Axe are increased phosphate levels, though for many water courses increased nitrate levels are more of a concern.

- 2.3 It is stressed that the legal and procedural matters highlighted by Natural England do not highlight legislative or legal process concerns that we are not already aware of and have not taken into account in our plan making work or in determination of planning applications. Indeed our work and conclusions had already placed a hold on a number of planning applications for schemes of ten dwellings or more whilst we identify mitigation measures. What is new, however, is the abruptness and directness of the advice that has been issued by Natural England and that we need to more fully understand.
- 2.4 We are now one of over 70 local authorities affected by this issue as can be seen on the map below of the areas in the country where Natural England have issued this advice.



European protected sites requiring nutrient neutrality strategic solutions
Nutrient neutrality SSSI catchments

- SSSI subject to nutrient neutrality strategy
- Nutrient neutrality SSSI catchment

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3 Lead authority to plan for mitigation

3.1 It is highlighted that the River Axe and its catchment falls in four local planning authorities areas, although this will be three when the new unitary authority in Somerset supersedes the current local authority in April 2023. The SAC designated stretch of river, however, falls entirely within East Devon and most development that could impact on the designated stretch is expected to occur in our district. It is concluded by officers of this council that we would be the logical lead authority to plan for mitigation of the River Axe site, even though phosphates will flow downstream from Dorset and Somerset into East Devon.

3.2 The catchment of the Axe in relation to local authority boundaries can be seen on the map below:



European protected sites requiring nutrient neutrality strategic solutions
Component SSSIs of River Axe SAC

- Local Authorities
- SSSI subject to nutrient neutrality strategy
- Nutrient neutrality SSSI catchment
- National Parks



4 Options for mitigation and the Triple Axe project

- 4.1 Since adoption of the River Axe Nutrient Management Plan work has been on-going to develop a mitigation strategy to address the issues raised. We are aware of many mitigation options that exist that would offset the impacts of development. Knowing of options is one thing but actually being in a position to design and implement them is another and all together more complex matter with many measures being dependent on securing and using land. In this respect it should be noted that East Devon District Council (from our searches) does not own any land that could actually deliver mitigation. In addition many of the mitigation options are short term projects that could not be used to mitigate permanent new dwellings. It should be noted that on farm projects to improve the quality of water discharge have been supported and funded by Natural England and Environment Agency for many years. A mitigation scheme for new dwellings will however need to provide mitigation in perpetuity and so is proving much harder to achieve.
- 4.2 A further barrier to delivering a mitigation strategy has been resources and expertise and this was one of the reasons for the post of District Ecologist being created and recruited to. Members will be aware that our Ecologist started work earlier this year and has already been working to progress mitigation measures. The £100k funding from government for the catchment would provide for additional staff resource and other resources to help to progress that work and deliver a mitigation strategy.
- 4.3 It is highlighted that mitigation schemes themselves fall into three broad categories as summarised below.
- 4.4 **On-development site mitigation** – on sites that are being developed there can be scope to introduce measures that will reduce (or at extremes potentially reduce to zero) emissions overall going into the river. Water use efficiency measures can help as can grey water recycling/use. It can also be possible to introduce measures on-site that fall under the approaches summarised below.
- 4.5 **Measures designed to reduce farming impacts** – most of the phosphates entering the river are a result of farming activity and run-off. It is highlighted that mitigation is concerned with net levels of phosphates in the river and mitigation needs to result in a reduction in overall levels. Mitigation can therefore be achieved through improved farming practices (notwithstanding that there is pollution legislation and regulation governing farming activities – though breaches might sometimes occur). Slurry is one example that can adversely impact on the river and improved management (above regulatory standards) could help reduce impacts.
- 4.6 **Measures in or adjacent to the watercourse** - related to improved farming practices is the potential for undertaking measures on land in or adjacent to the river and tributaries. Slowing water flows and introducing wetlands and river valley tree planting/vegetation and removing grazing from close to the river can all have positive phosphate reduction impacts. On some especially big development sites it might be possible to have some of these measures on the site being developed itself.
- 4.7 **Improved sewage treatment** – sewage treatment plants work within regulatory standards but such standards do allow for discharge of some phosphates into the river system. It might be technically and legally complex to implement improvements to treatment, and can

be expensive, but there is some potential scope for improved treatment. It is relevant to note, however, that stripping more phosphate out of the discharges could result in higher carbon emission levels.

- 4.8 There are costs associated with all of the above measures, and probably any measure to mitigate phosphate impacts, and the clear expectation is that monies would wholly or predominantly need to come from the development, as happens currently for the River Exe and Pebblebed Heaths mitigation. It is also highlighted that quantifying the mitigation that any measures will deliver may become complex as would calculating the actual net phosphates that any development site might actually generate. The word “net” (as opposed to gross) is important here as many development sites may already emit phosphates into the river, especially if farmed, as most land currently is and some farming activities are more polluting than others. So there is a need to calculate pre development emissions and to offset these against post development emissions to determine net mitigation requirements. The correspondence from Natural England sets out a calculator for doing this that they endorse.
- 4.9 It is also highlighted and critical that mitigation measures will be long lasting and that there is confidence that they will be in place for many years to come – an applicable legal time period for such mitigation might be taken as lasting for at least 80 – 125 years. It is likely to be a challenge to have confidence, especially if working with third parties, to be able to show full confidence of the long life time of any mitigation measures. It should be noted that developers can seek to deliver mitigation themselves alongside and in association with any planning application. It is expected, however, that this will frequently be a big if not insurmountable challenge for many (perhaps all) development schemes and as such if the Council want to see development happen in the catchment of the river the expectation is that there will need to be a strong Council lead and coordinated set of plans and actions.
- 4.10 **The Triple Axe Project** - We will want to come back to committee to explain more about the Triple Axe Project but it does neatly dovetail with mitigation measures that the Council will need to see delivered. The Triple Axe project is led by the Blackdown Hills AONB partnership and the Devon Wildlife Trust. It forms a partnership of a wide range of bodies and professionals with a specific interest in the River Axe and its surroundings, its environmental quality and improvement and the farming, wildlife and communities of the river valley system.
- 4.11 The Triple Axe Project is currently developing a range of projects designed to improve river water quality with a direct focus on reducing phosphate levels. These projects are however at early stages of development and are currently shorter term in nature and of a demonstration status. Looking forward the intent is to deliver long term, sustainable and lasting improvements to the river. There is therefore, a clear synergy between the work we need to do and the outputs we seek and that of the Triple Axe Project. The council retain direct and clear contacts with the Triple Axe work. For more information on this project and challenges it has identified see the Triple Axe Action Plan (2021-26)
<https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:93663dee-b727-4f53-8144-f4cec41b4303>

5 Implications for Plan Making

- 5.1 In terms of the new Local Plan it was already known that the impacts of development on nutrient levels in the River Axe would need to be considered under the habitats regulations in making allocations in the area and that any residential development promoted in the area would need to be subject to mitigation. The correspondence from Natural England does not change this position while the additional funding will help to move forward with a mitigation strategy.
- 5.2 With regard to neighbourhood plans in the area it may well mean that further habitat regulations assessment work will need to be undertaken in support of neighbourhood plans particularly those that seek to allocate new homes. Our neighbourhood planning officer will be on hand to advise and support neighbourhood planning groups.

6 Implications for Development Management

- 6.1 The development management team currently have 28 applications under consideration that could potentially be impacted by the correspondence from Natural England. Up until now we had been granting small scale residential developments within the catchment of the Axe but holding larger scale applications pending mitigation measures. Developments will now have to be subject to a full appropriate assessment under the habitats regulations and in the likely absence of mitigation that would demonstrate that they can be nutrient neutral then they would have to be refused at this time. A clear implication of this and decisions on future residential developments that would have come forward in the area is a clear reduction in the number of new homes coming forward within the catchment of the Axe. This could have implications for housing delivery overall and our ability to maintain a 5 year housing land supply. Further investigation of the implications for housing supply need to be undertaken and reported on.
- 6.2 Further implications for development management will include the need to provide information about these changes on our web-site and to applicants now and in the future. In addition undertaking appropriate assessments for proposals for new residential development in the area will generate additional work. There will therefore be not insignificant resource implications for the service.

7. Further Work

- 7.1 A lot of further work is needed initially to better understand the guidance issued by Natural England and its implications and then in delivering a mitigation strategy. Further reports will be brought to Members as work progresses and decisions need to be taken to progress this work.

Financial Implications

The financial implications and available funding have been clearly addressed in the body of the report. The potential future financial implications are wide ranging from loss of planning fee income due to the requirement to refuse applications through to the potential for additional resource requirements due to the new burdens that will be placed upon the service. These impacts will need to be considered and prioritised within future budgets along with the financial management of delivering a cross council strategy.

Legal Implications

There are no other legal implications other than as set out in the report.