

CABINET

Thursday, 7 July 2022

PHOSPHATE MITIGATION STRATEGY

Report of the Strategic Planning Manager

Recommendations

It is recommended that Cabinet approves:

- (1) an Interim Phosphate Mitigation Strategy allowing developers to purchase credits at a cost of £4,500 + VAT per dwelling to address the environmental impacts of phosphates arising from new development within, and draining into Wastewater Treatment Works in, the River Itchen Special Area of Conservation (SAC) catchment area.
- (2) Capital Expenditure of up to £200,000 for a feasibility study, to be funded from revenue income from the sale of Phosphate Credits, for the creation of new wetlands on Council-owned land as a longer-term strategy, subject to undertaking monitoring, detailed design and the development of a business case.

Summary

The Council has an established nutrient neutrality mitigation scheme to address the impact of nitrates generated from the wastewater from new housing development and development that generates overnight accommodation in the Solent catchment. Following a review of the evidence, Natural England launched new guidance in March 2022 advising that mitigation is now also required to address the impact of phosphates in the River Itchen catchment area. The Habitats Regulations place the responsibility on the Council as Competent Authority to ensure when permitting new residential development and development that provides for overnight accommodation, that there is no net increase in phosphates reaching the internationally designated River Itchen ensuring phosphate neutrality is maintained. If the Council as the Competent Body cannot ensure phosphate (and nitrate) neutrality, the proposed development should not be permitted as it would be a breach of Regulation 63 of The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019 (as amended). Broadly, qualifying development is within the catchment that extends approximately from West End / Hedge End north to include the northern part of the borough.

A proposed Interim Phosphate Mitigation Strategy has been developed to avoid “loading” additional phosphates into the river and to enable planning permissions to be granted. The interim strategy will be reviewed in 6 months and will be in place until a longer term

solution is developed. The Interim Strategy has three main strands:

- on-site mitigation using Sustainable Drainage Systems (SuDS);
- sale of phosphate credits currently available from taking land out of agricultural use, using the Council's strategic land acquisitions;
- future sale of credits from wetland creation. A feasibility study is proposed to consider the creation of new wetlands to inform a longer term solution.

Statutory Powers

The Conservation of Habitats and Species Regulations 2017 as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

Town and Country Planning Act 1990

Strategic Implications

1. The decision reported in this agenda item supports the objectives relating to a Green Borough and Prosperous Place (including Housing) in the Corporate Plan 2015-2025 and the delivery of housing in the Adopted Local Plan 2016-2036. It also supports the Climate Change and Environmental Emergency Action Plan and will have a significant positive impact on the environment.

Introduction

2. Since 2020 the Council has had a strategy in place to address the impacts of nitrates arising from new development on the waterways and coastlines of the Solent, which are protected for their internationally important ecology - <https://www.eastleigh.gov.uk/planning-and-building/nutrient-neutrality-offset-scheme>. On 16 March 2022 Natural England contacted local authorities across the country to provide updated guidance following further work evaluating the condition of protected waterways. This work identified more waterways in unfavourable condition that are adversely impacted by excess nutrients and raised the additional issue of phosphates for some waterways.
3. The updated advice from Natural England identified excessive levels of phosphates in the River Itchen Special Area of Conservation (SAC). The River Itchen is a chalk river that supports a diverse ecology and is designated as a SAC for its aquatic flora and associated fauna species under the EU Habitats Directive (now transposed to UK law as The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).
4. Increased nutrients can cause eutrophication leading to algal blooms. This can disrupt the function of the ecosystem and cause major changes in the aquatic community.

5. The main sources of phosphates in rivers are sewage and losses from agricultural land (animal waste, fertilisers). This is likely to be exacerbated by climate change with lower summer river flows and increased run off from agricultural land during wetter winters. Furthermore, wastewater associated with new development also results in “phosphate loading” increasing the level of phosphates within the River Itchen. As the River Itchen is classified in an ‘unfavourable’ condition with excess phosphates, any increase in phosphates is considered to have a significant effect.

Impact on development in Eastleigh

6. As a result of the updated guidance, new residential development, and other development involving overnight accommodation such as care homes and hotels, proposed in the Itchen catchment area are required to ensure phosphate neutrality which will generally require some degree of mitigation for phosphates generated. This applies to new “qualifying” development within the catchment area itself which includes parts of Eastleigh, Bishopstoke and Fair Oak and extends out to Horton Heath and West End, see map in Appendix A. It also applies to development in Chandler’s Ford and Eastleigh served by the Chickenhall Wastewater Treatment Works which discharges into the River Itchen.
7. Under the Conservation of Habitats and Species Regulations 2019 (as amended), where there is a potential for development proposals to have a significant effect on SAC sites, an Appropriate Assessment is required. Planning permission may only be given where the Appropriate Assessment demonstrates no adverse impacts on the integrity of SAC sites with regards to phosphates with no reasonable scientific doubt remaining. This takes into account mitigation measures to avoid or reduce any harmful effects.
8. Natural England has updated the nutrient neutrality calculator tool, adding a phosphate calculator, which enables developers to assess the amount of nutrients produced from their specific development and therefore the mitigation required to achieve phosphate, as well as nitrate, neutrality. The latest version of the calculator is more complicated and requires more detailed technical information. This may lead to delays as developers work through the updated calculator. (Small and self-builders in particular will find such technical calculations extremely challenging.) Planning permissions cannot be issued until the Council (as Competent Authority) is satisfied that schemes are phosphate neutral. Natural England is already maintaining objections to development of any scale that is not demonstrating phosphate neutrality.

Impact on other Local Authorities

9. The need for phosphate neutrality will also apply to development in parts of Winchester, East Hampshire and Basingstoke and Deane within the River Itchen SAC catchment., as shown in Appendix A. The affected authorities are working together with the Partnership for South Hampshire (PfSH) Strategic Environmental Planning Officer to co-ordinate work and determine the extent of the issue and mitigation required. Although parts of Southampton are within the River Itchen SAC catchment area, phosphate neutrality does not impact

development there as it is a tidal river estuary along most of its course within the city.

10. Phosphate credits are more difficult to create and the criteria for phosphate mitigation are more onerous than nitrates. Unlike the mitigation required for nitrates, Natural England has confirmed that phosphate mitigation must be delivered at or above the point of impact on the Itchen. This would exclude the sale of phosphate credits to offset the impact of development in the Winchester, East Hampshire and Basingstoke and Deane local authority areas.

Phosphate mitigation

11. Development should be designed to utilise all the opportunities for on-site mitigation of phosphates through the use of Sustainable Drainage Systems (SuDS) before off-site measures are considered. This may require schemes already submitted to be redesigned to ensure SuDS schemes are designed to maximise the removal of phosphates.
12. If a development cannot demonstrate appropriate mitigation for all the impact on-site, the Interim Strategy will provide an option to purchase phosphate credits generated from land that the Council owns and has already set aside for nitrate mitigation in perpetuity. Phosphate and nitrate credits arise from this land due to taking it out of agricultural use, thereby creating a net reduction in nutrients arising from the land. The principle of layering of offsetting different ecological impacts from the same land is acceptable to Natural England.
13. The principle of using credits to provide mitigation is well established and the process of purchasing phosphate credits will follow the same approach as Council's nitrate mitigation scheme.
14. Table 1 below identifies Phosphate credits immediately available across the Council's strategic land holding. These sites (labelled in the Map column in the table: 21, 22, 28 etc) are marked on map 1 overleaf.

Table 1 Amount of phosphate credits available on Council land holdings

Locale	Map	Catchment*	Area (Ha)	Phosphates			
				Farmscoper result kg/ha	Baseline sub-total Kg P/ha	Imposed P-load from new land use	Net Impact kg P/yr
West End	21,22	Itchen	9.41	10.63	10.63	- 0.19	10.44
West End	28	Itchen	15.01	inc	inc	- 0.30	0.30
West End	29,30	Itchen	16.79	inc	inc	- 0.34	0.34
Bishopstoke	4	Itchen	10.29	19.20	19.20	- 0.21	18.99
Bishopstoke	6	Itchen	56.11	32.88	32.88	- 1.12	31.76
Fair Oak	35	Itchen	92.81	88.42	88.42	- 1.86	86.56
			200.4	151.1	-	4.0	147.1



Map 1 – Sites with phosphates credits (refer to table above for specific sites)

(Sites coloured green indicate EBC ownership. The blue area indicates the One Horton Heath site.)

15. Evidence reviewed so far about the levels of Phosphate mitigation required show a range of 0.07 - 0.14kg/TP/yr per dwelling. This indicates that the 147 net credits (kg of Phosphate per year) available in Table 1 equates to c.1,500 dwellings of mitigation, which is estimated to be 2-2.5 years of Housing Land Supply (if all development was located within the River Itchen catchment).
16. To avoid delays in bringing forward the Interim Strategy, the Council has derived the credits outlined above from detailed calculations using Natural England's own methodology. This will be subject to review by Natural England therefore the exact number of phosphate credits available may change slightly once reviewed with Natural England. If any significant issues are raised as a result of further discussions with Natural England, the Council will review the approach in the Interim Strategy.
17. The Council is in active dialogue with Natural England concerning the raft of environmental mitigation measures now being required of developers in Eastleigh borough: nitrates, phosphates and impacts on the New Forest. The Council is providing feedback to Natural England and helping to develop workable policy approaches, and how to strike the best balance of development and environmental protection. The Council will continue to take its own view as to how best to strike this balance and bring forward reasonable and proportionate approaches.

Creation of wetlands

18. Mitigating Phosphates on-site (using SuDS) or creating credits by taking land out of agricultural use will not satisfy the projected need over the longer term. Wetland creation is known to be a very effective and efficient way to mitigate phosphate impacts. Approval is therefore sought for a feasibility study to consider the creation of wetlands on Council-owned land within the catchment area. Wetlands are complex systems and remove nutrients through natural occurring processes as water flows through the wetland. They can be created within catchment areas to remove phosphates from surface water or stream flow. Alternatively, they can be created next to Wastewater Treatment Works (WwTWs) to filter and treat water pollutants discharged from the WwTWs.
19. Wetlands would be created and maintained in perpetuity. They need to be managed and maintained (including replacement of materials from time to time) in order to ensure that they continue to work effectively but have the potential to be a long term solution to mitigate development within the borough.
20. Proposals to create new wetlands are being considered on three Council owned sites including sites next to Chickenhall WwTW and within the One Horton Heath site. Before these can be brought forward as potential mitigation, further work is required including water quality monitoring, detailed design and the development of a business case.

21. As the credits currently available meet demand for c.2 years of Housing Supply, it is essential that projects to create additional phosphate mitigation are progressed as soon as possible so that necessary data collection, detailed design, planning permission, procurement and construction work can be carried out in a timeframe to allow continuous supply of housing across the Borough, including at One Horton Heath. A subregional coordinated partnership approach brought forward by PfSH is not expected in the near future, as such to avoid housing development stalling in the northern part of the borough, an interim Phosphate mitigation strategy is necessary.
22. Cabinet is asked to approve capital expenditure of up to £200,000 funded from the additional revenue generated by the Interim Phosphate Mitigation Strategy in order to progress design, feasibility and a business case for creation of three wetland projects on Council owned land which deliver further nutrient mitigation benefits. This will be informed by the imminent release of Natural England wetland design guidance.

Wastewater Treatment Works

23. Phosphate impacts can be reduced with improved waste water treatment. However this involves expensive and complex improvements at wastewater treatment works (e.g. Chickenhall Lane) operated by a private company. There are plans for such improvements in phosphorous filtration in Chickenhall Lane WwTW in 2025. The reduced impact of development after this time is allowed for within the calculations but will not meet the need for mitigation. A longer term Strategy will take account of any further improvements in Wastewater treatment.

Financial Implications

24. The Interim Phosphate credit charging scheme is estimated to generate additional gross revenue of £6.75M. This is based on the assumption that 150 credits delivered on strategic land will provide mitigation for 1,500 dwellings at a cost of £4,500 per dwelling. The cost is the same as the interim nitrate strategy and also reflects the estimated cost of new Phosphate credits via the creation of wetland. This improves the strategic land business case approved by Cabinet previously.
25. The income will be used to fund the ongoing management and maintenance of the land and to fund the ongoing borrowing costs of the £200,000 for feasibility works. Any additional revenue income will be reserved.
26. Proposals for wetland creation will be brought back to Cabinet for a decision and will be accompanied by detailed design and a business case.

Risk Assessment

27. There is no initial risk with bringing forward credits as this uses land already in the Council's control. This land is already being taken out of agricultural use and managed by the Council.

28. The risk of not introducing this scheme is that housing delivery could stall within parts of the borough as planning application decisions would not be issued for developments that are not able to mitigate the impact entirely on-site.
29. A longer term risk could arise if the supply of credits is exhausted however the creation of new wetlands would have the potential to deliver a large number of credits. It would be expected that new development would be designed to ensure proposed layouts address the issue on-site where possible through SuDS.
30. The Council is unable to grant planning permission for new developments within the River Itchen catchment unless it can be clearly demonstrated that they will not increase nutrient loading to the protected area. By granting permissions without this Interim Strategy, and with objection from Natural England, the Council would run the risk of Judicial Review from third parties.
31. There is a risk that Natural England will not approve the overall approach of the Interim Strategy; this is considered a very low risk given that it is based on their methodology and calculations, and will only give rise to a small change in the level of credits arising from Council land, rather than a need to change the overall approach in the Interim Strategy. Natural England will comment on this Interim Strategy by the autumn.

Equality and Diversity Implications

32. There are no Equalities implications arising from the decision in this report as there are no opportunities to address the aims of the Equality Act.

Climate Change and Environmental Implications

33. The decision outlined within this report will have a positive impact on the environment and climate resilience. It will address the potential impact of phosphates on high-quality conservation sites within the region. It provides an opportunity for securing further benefits including Biodiversity Net Gain schemes incorporating the wetland creation projects with land set aside in perpetuity.

Conclusion

34. It is recommended that Cabinet approve the introduction of a phosphate credit charging scheme. These credits will be available to developers who cannot address the full impact of their development on site. The charges will be reviewed in 6 months to ensure that they remain appropriate and if Natural England raise issues with this approach. If necessary, a further report will come back to Cabinet to consider changes in the proposed approach or the amount or cost of credits.
35. It is also recommended that Cabinet approve work to progress a longer term strategy to create wetland. This will be put in place before the credits available from the interim mitigation strategy are used up. This is subject to further work

on the effectiveness of the scheme, detailed design and developing the business case during 22/23 and 23/24..

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Appendices Attached: Appendix A – Map of River Itchen SAC catchment area

LOCAL GOVERNMENT ACT 1972 - SECTION 100D

The following is a list of documents which disclose facts or matters on which this report or an important part of it is based and have been relied upon to a material extent in the preparation of this report. This list does not include any published works or documents which would disclose exempt or confidential information.

None