

Clarification Note

Applying the Tests of Soundness to Local Development Plans (LDPs) where additional nutrients may impact on Special Areas of Conservation (SACs).

Introduction

1. This is a clarification note on how the Development Plans Manual (Edition 3, March 2020) 'Tests of Soundness' should be applied to Local Development Plans (LDPs) where the impact of additional nutrients on Special Areas of Conservation (SACs) has been identified.

Background

2. In 2021 Natural Resources Wales (NRW) published updated water quality targets for rivers designated as Special Areas of Conservation (SACs). Subsequently, NRW published guidance (June 2025) following updated condition assessments for Marine SACs, which indicate unfavourable status for certain water bodies as a result of Dissolved Inorganic Nitrogen, phytoplankton and opportunistic macroalgae. The information has implications for preparation and examination of Local Development Plans (LDPs) and determining planning applications in the affected areas. Rivers and marine areas may be affected by a range of threats and pressures and their designation as SACs affords specific legal protection under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive") and the Conservation of Habitats and Species Regulations 2017/1012 ("the Habitats Regulations"). **The overarching aim of the Directive and regulations being to 'maintain' or 'restore' habitats and species at a favourable conservation status which, in practice, is achieved where a protected site meets its site-specific conservation objectives.**
3. NRW has identified water bodies in riverine SACs where water quality targets are currently not being met and where marine SAC features are considered to be in unfavourable condition due to evidence of chemical and biological failure. Where this is the case a 'restore' conservation objective applies. In some cases, it may be possible to screen out a certain quantum of development as being de minimis under a defined threshold where this can be supported by relevant evidence and assessment (see paragraphs 14-17).
4. When a restore objective applies and a proposal contributes additional nutrients, if it is not possible for a Habitats Regulations Assessment (HRA) to screen out LDP policies and proposals as having no likely significant effects on the SAC, as a result of the level of additional nutrients entering affected water bodies being de minimis, an Appropriate Assessment must be undertaken. The competent authority may only permit or approve the plan or project where it would have no adverse effects on the integrity of the SAC. In this context, the integrity of a site relates to the site's conservation objectives and the integrity test is primarily concerned with the extent

to which a plan or project might undermine the achievement of the conservation objectives. Where an adverse effect cannot be ruled out, and there are no appropriate alternative solutions, the plan or project should only be permitted or approved if there are imperative reasons of over-riding public interest (IROPI) and the necessary compensatory measures can be secured.

Interim Planning Policy Statement and WG/DTA Guidance

5. The approach set out in this clarification note reflects the principles contained within the [Welsh Government Interim Planning Policy Statement on Development in SAC Rivers](#) and the [‘Practical planning guidance to support development, particularly the delivery of affordable housing, in Special Areas of Conservation river catchments affected by phosphorus’](#) (Welsh Government/DTA Ecology guidance). Although referring specifically to SAC Rivers and excess phosphorous, the policy approach is equally applicable to Marine SACs and excess nitrogen. Further guidance can be found in the DTA *‘Workshop Report and Case Study Scenarios’*.
6. The interim policy includes the preference for an integrated approach to the delivery of management, restoration and mitigation noting that:
The achievement of conservation objective targets within SAC rivers is central to achieving sustainable development. The Welsh Government requires public bodies, including statutory agencies, to work together to ensure that action to reduce nutrient loading to SAC river catchments under a fair share approach is identified and delivered in accordance with the sustainable development principle. In the interests of future generations, public bodies must make proportionate use of statutory powers to deliver necessary actions as soon as reasonably practicable. A fair share approach can be relied upon by local planning authorities and developers where this can be demonstrated.
7. NRW in their role of the statutory nature conservation body/environmental regulator will reaffirm in a statement of common ground with the relevant LPA that they will take appropriate steps to avoid deterioration, in accordance with the Nutrient Management Plan for the SAC and any other relevant plans, to both deliver, and support or facilitate the delivery of the necessary actions over the plan period. This requires the appropriate steps and monitoring mechanisms to be clearly outlined. It will be necessary to avoid duplication and to ensure consistency between all relevant stakeholders and plans. This would mean including an appropriate signpost/reference to be made in the LDP to the Nutrient Management Plan or other relevant plan. At the same time, the LDP would need to clearly establish the interdependency between plan strategy, policies and proposals and the catchment wide commitments to restore the SAC. To ensure transparency, where steps and measures are not already clearly set out in the nutrient management plan or other relevant plans, this could take the form of an indicative mitigation action plan, if the tests set out in the WG/DTA guidance can be met, for the purposes of the development plan, in recognition that this will evolve over time. Where necessary and appropriate, relevant bodies should make proportionate use of statutory powers. Action will necessarily be based on partnership working between relevant

stakeholders and sectors as set out by the nutrient management boards and other relevant plans. This is justified on the basis that a **fair share approach can be relied upon by local planning authorities, PEDW and developers for the purposes of reviewing LDPs and determining planning applications where measures to avoid deterioration and secure restoration of SACs are identified and integrated (in line with the Interim Planning Policy Statement and policies WG1, 2 and 3 in the WG/DTA Guidance) with the strategy, policies and proposals in the Plan.**

8. An integrated approach to the delivery of management, restoration and mitigation can involve a phased approach to the delivery of management and restoration measures. Taking an integrated approach which allows for a phased approach does not mean development itself would need to be phased it merely recognises that the steps to be taken and measures identified for on-going improvement may need to be phased depending on the circumstances prevalent in given catchments and waterbodies with an adaptive management approach being adopted. In an integrated approach, development being proposed in the LDP will be interdependent with the wider steps and measures identified and a policy caveat approach applied. Worked examples reflecting a range of scenarios are included in the DTA guidance '*Workshop Report and Case Study Scenarios*' and are contained at Annex 1 of this letter.

Habitats Regulations Assessment

- 9 As a matter of law when preparing a LDP, the accompanying HRA must consider the potential effects of a plan in view of the conservation objectives of any European Site. Section 10 of the WG/DTA guidance provides an overview of the approach to HRA set out in the guidance.
- 10 Where nutrient targets have been incorporated into a site's conservation objectives, understanding the baseline and the prevailing environmental conditions is essential. Guidance can be found in Section 5 of the Welsh Government/DTA Ecology guidance. A range of factors will need to be considered and will include reviewing the implications of the relevant SAC condition assessments for the LDP, NRW compliance assessments and Nutrient Management Board Action Plans. Consideration of these evidence sources, along with any other locally based information, should enable an understanding of:
 - known and future management or restoration measures that are available and the extent to which they will avoid deterioration (estimates of the scale of reductions which will result from these improvements);
 - whether these wider management or restoration measures are secured (and associated with delivery milestones) or are aspirational;
 - geographical area in which nutrient neutrality (NN) may be required.
- 11 An element of uncertainty is acceptable in understanding future improvements. The purpose of understanding the baseline conditions is to provide an indication of the extent to which further action, over and above measures already being

implemented or secured, might be required to deliver fair share improvements and to achieve the conservation objectives. A level of precaution is needed but this should not be excessive given that interdependency is being sought to be demonstrated between plan policies and proposals and on-going measures under article 6(2).

12 Under the Habitats Regulations there are various pathway through which plans and projects can progress. In general, moving downwards through the pathways means the impacts on development, including financial viability, increase. The Interim Planning Policy Statement adopts a sequential approach towards consideration, and a preference for an integrated approach, to ensure that impacts on development are reduced to the lowest possible level whilst at the same time ensuring deterioration is avoided and restoration achieved. The delivery pathways are summarised in Fig 1:

Fig 1:

Pathway step 1 – Can development be delivered through a threshold-based approach?



Pathway step 2 – Can development be delivered in the absence of further mitigation?



Pathway step 3 – Can development be delivered through a mitigation-based approach?

Preference - an integrated approach



Last resort - a nutrient neutrality-based approach



Pathway step 4 – Can development be delivered through a derogation-based approach?

13 It is recognised that for LDPs a combination of approaches may be necessary to reflect different water bodies in the area. For example, depending on local evidence, part of the area covered by a LDP may be appropriate for a threshold approach whilst the rest of the area is subject to mitigation adopting an integrated approach. The case study scenarios provided as an annex to this clarification note give further information and examples on the range of issues that need to be considered when deciding which approach is most appropriate in any particular area.

Screening and consideration of a Threshold approach

Case Study Scenarios 1 and 5

- 14 The first stage of the HRA process is a 'screening' exercise to consider whether the policies and proposals in a plan are likely to have a significant effect on any European Site. If a plan could undermine the conservation objectives of a site the HRA must progress to the second stage **appropriate assessment**.
- 15 The use of a threshold approach is explained in section 6 of the Welsh Government/DTA Ecology guidance. The example scenarios 1 and 5 at Annex 1 provide an indication of the circumstances in which a threshold approach could be applied. Adopting a threshold approach means recognising additional nutrient loading from defined plan proposals will not have any meaningful influence over the achievement of the conservation objectives for the site.
- 16 When applying the screening step an effect is only significant if it undermines the conservation objectives. Impacts which are very low can properly be ignored as *de minimis* and a common-sense approach may be possible in relation to some policies and proposals in the plan, taking account of the extent to which the nutrient contribution from the plan will meaningfully hinder the delivery of restoration.
- 17 The Welsh Government/DTA guidance is clear that a threshold-based approach which applies on a project-by-project basis in an unlimited manner is not advised. The cumulative effect of policies and proposals must be taken into account, so a consideration of whether development can be regarded as **de minimis** must be undertaken in terms of the scale of implementation across the whole plan period and necessarily will inform the appropriate assessment. For plans, HRA thresholds are therefore anticipated to be derived on the basis of an overall quantum of development over a defined timeframe. A threshold-based approach may be combined with a wider integrated approach across an area in the LDP, reflecting catchment specific characteristics and circumstances.

Mitigation-based approaches

Case Study Scenarios 2, 3 and 4

- 18 Where likely significant effects have not been screened out, it is necessary to proceed to the second stage of HRA, Appropriate Assessment, to consider the likely and reasonably foreseeable effects to conclude whether the plan will have an adverse effect on the integrity of the SAC. In doing so, account can be taken of the way in which the proposal or policy is intended to be carried out and whether conditions or other legally enforceable restrictions can be put in place to ensure site integrity will not be adversely affected.

- 19 The concept of site integrity is central and relates to the conservation objectives. Where a restore objective applies the integrity test is concerned with the extent to which a plan might undermine the delivery of restoration. In this context, not all effects represent an adverse effect to site integrity. The nutrient loading from the plan can be considered in view of any wider measures and steps which will be implemented during the plan period to deliver restoration.
- 20 A plan level appropriate assessment need not be as detailed on certain aspects as a project level appropriate assessment. Nevertheless, each LDP policy and proposal must be assessed in terms of its effect on the integrity of the relevant SAC and an indicative assessment made of the likely level of mitigation that will be necessary. The level of information required must be appropriate to concluding that the principle of development can be achieved, leaving detail assessment to the planning application stage. **An appropriate policy should also be included in the LDP indicating that planning permission will only be granted at planning application stage where any necessary mitigation can be secured, preferably through an integrated approach.**
- 21 The delivery of mitigation associated with plan policies and proposals must not compromise the ability of other initiatives to deliver necessary restoration. It is the case that short term (development only) approaches to nutrient neutrality may diminish the options available for moving towards the achievement of conservation objectives over time. Therefore, in preparing an indicative mitigation plan to ensure LDP policies and proposals do not cause adverse effects on site integrity, Local Authorities should firstly identify those proactive measures planned under articles 6(1) and 6(2) of the Habitats Directive (conservation measures and steps to avoid deterioration) in line with taking an integrated approach.
- 22 An **integrated approach** to the delivery of restoration and mitigation requires a decision maker to be satisfied that mitigation associated with plan proposals is designed in a way to ensure that the delivery of restoration will not be undermined or delayed by the adoption of the plan. Measures which would not impede the scale, magnitude or scope of planned measures or speed up the delivery of measures already being taken to achieve a site's conservation objectives, where the current implementation timescale risks ecological deterioration in the interim, are potentially acceptable. Where there is uncertainty as to the extent to which the delivery of restoration might be undermined, measures should be designed on a precautionary basis to provide necessary confidence that adverse effects to site integrity will be avoided, with the aim of speeding up the rate of restoration, over and above what would be achieved in the absence of the plan coming forward.
- 23 The example scenarios at Annex 1 indicate that plans will have to contend with circumstances where progress on measures under Article 6(2) will be evolving over time. Consequently, to ensure there would be no adverse effect on the integrity of the SAC, the delivery of growth contained within the plan will be inherently linked to progress being made on the steps to be taken and measures identified to improve the SAC and an interdependency between the contribution of

development mitigation with these steps and measures will need to be demonstrated. **The plan can account for this by establishing a policy caveat approach towards implementation, which renders the granting of planning permission conditional upon the delivery milestones identified for on-going and future improvement measures.** Broad financial estimates to ensure that development is able to make sufficient provision for mitigation costs either by contributing to existing or future improvement measures, or on its own, should be submitted. Indicative ways of estimating this are contained in the example scenarios.

- 24 Further detail on suggested policy wording for use as part of a policy caveat approach is set out in an indicative mitigation action plan for the LDP, where this does not already exist in a nutrient management plan or other relevant plan, and which would include the provision of a framework to monitor the delivery of committed and allocated sites within the affected area relative to the short/medium/long-term measures identified. An indicative plan would need to reflect measures already known (in Nutrient Management Board Actions Plans and other relevant plans) as well as necessary future improvements and the details of indicative developer contributions required to secure integrated mitigation. Where monitoring indicates that an integrated approach cannot be relied upon then development only mitigation would be required on a case by case basis in order to enable planning permission to be granted to meet nutrient neutrality requirements until such time as the delivery of the wider measures is back on track.
- 25 Where an integrated approach is not possible, because appropriate steps to deliver restoration or avoid deterioration under Article 6(1) and (2) have not yet been identified or are yet to be associated with a delivery mechanism, LPAs may, as a last resort, explore a **nutrient neutrality-based** approach. Under an integrated approach to restoration and mitigation the risk to site integrity arises from the risk that development may delay the delivery of measures already identified to achieve conservation objectives. In these circumstances the effectiveness of mitigation measures is concerned with avoiding such delay. Under a nutrient neutrality-based approach, however, mitigation options must avoid deterioration. Demonstrating mitigation in this scenario can be more onerous and the consideration of proposed allocations on a case-by-case basis is resource intensive and places a considerable burden on LPAs and project proposers.
- 26 As an alternative, a strategic approach towards neutrality could be adopted through the establishment of a nutrient trading scheme. This could involve larger scale mitigation measures being delivered to reduce a defined quantum of nutrients which are then traded to external parties to achieve neutrality for proposed development. A single or suite of measures may be necessary which will deliver sufficient nutrient reductions to mitigate for the additional loading from planned development. The delivery of measures will be dependent on landowner agreement and consideration will need to be given to the extent to which securing such agreement is realistic.

Derogation-based approaches

Case Study Scenario 3

27 In the absence of the potential for a threshold-based approach or where it may be considered that viable options to avoid adverse effects to site integrity are not feasible, either as part of the preferred integrated approach or failing that through nutrient neutrality, a LPAs may consider whether the article 6(4) derogation-based approach is appropriate.

28 In some cases, the constraint due to excess nutrients may have such a geographic extent that there are no realistic or viable alternatives to the plan strategy or allocations to address the need for development in the short term. This includes the absence of alternative ways of meeting a national policy objective or a defined need in neighbouring authorities. In such cases, the practical achievement of an integrated approach to address nutrients might not be demonstrable and nutrient neutrality approaches could compromise the achievement of restoration objectives if viable restoration measures are already limited. Whilst the Article 6(4) derogation provision is a last resort, it may be considered where viable options to avoid adverse effects to site integrity are not feasible. Scenario 3 (Annex 1) provides further guidance on what needs to be considered in such circumstances. A derogation-based approach for a defined geographical area may be combined with a wider integrated approach across a catchment, reflecting catchment specific characteristics and circumstances.

Tests of Soundness

29 The test of soundness ***Will the Plan Deliver*** is of central importance to LDP preparation and examination. A wide range of evidence is necessary to demonstrate deliverability including demonstrating the infrastructure is adequate or can be made adequate and that development is economically viable.

30 As far as nutrients are concerned, the level of certainty available at the LDP stage is likely to be lower than at the planning application stage. In relation to nutrients, the approach to the soundness tests should be proportionate, and pragmatic recognising it is a complex and evolving issue, where Local Authorities may not have full information at the time of plan preparation. However, evidence should be presented at an appropriate plan making level to identify the interdependencies between plan policies and proposals and on-going existing and future improvement measures which reflect the scale, type and cost of mitigation necessary to deliver the plan. The key question is whether the mitigation relied upon at the plan making level can be reasonably achieved in practice¹. An indication of what may be required in an integrated approach is contained in the case study scenarios in Annex 1. LDPs should be supported by an **indicative mitigation action plan**

¹ No Adastral New Town' [2015] EWCA Civ 88 UK court decision.

which includes the following information where any of this information is not available in other relevant plans:

- An estimate of the impacts arising from the plan proposals;
- An estimate of the improvements from existing and future measures necessary to avoid further deterioration of the SAC, including from plan proposals;
- The securing of the appropriate steps to be taken - clearly identified and associated with an appropriate delivery mechanism and agreed milestones (some of these steps will already be on-going, others will be medium or longer term and be phased in an adaptive management framework);
- Identifying integrated mitigation where this can be secured and appropriate developer contributions identified (which is interdependent with the on-going steps and measures); and,
- a clear monitoring framework for implementing policies and proposals relative to the adaptive management framework of identified appropriate steps and measures.

31 Mitigation measures may have financial impacts on the viability of development. Where possible, an estimate should be made of the likely cost of mitigation and these should be factored into viability modelling, to demonstrate mitigation factors are deliverable. The case study scenarios at Annex 1 provide an indication of cost parameters. The LDP should evidence that future development can take place, providing the viability of development can accommodate the necessary financial contribution to mitigation in line with the Interim Planning Policy position and WG2 and WG 3 of the WG/DTA Guidance.

32 The DPM recognises that a flexibility allowance must be embedded into LDPs to allow for instances where site specific circumstances delay the delivery of allocated sites. The plan will need to evidence there is sufficient flexibility above the housing requirement to account for non-delivery and unforeseen issues, demonstrating delivery of the anticipated annual build rate throughout the plan period. The level of flexibility will be for each LPA to determine based on local issues and will need to have regard to the impact of the plan proposals on the integrity of the SAC and the delivery of related mitigation measures to address it. It is recognised that the ability to adjust the LDP housing requirement flexibility allowance may be constrained where the spatial strategy can only identify areas for sustainable growth within an already affected catchment. Where this is the case then a pragmatic approach will be required.

33 In summary, the Welsh Government considers that legislative requirements in relation to HRA and the 'Test of Soundness can be appropriately addressed where the process set out in this letter is followed. The indicative costs of appropriate mitigation should be estimated and factored into financial viability modelling and linked to the policy caveat which should be included in the plan, so as to ensure adverse impacts can be avoided, thereby enabling plans to be adopted. Robust

Final Version

evidence will be required to demonstrate this position can be achieved and that plans can progress through the statutory preparation process.

Annex 1 – Case Study Scenarios (extracted from DTA Report Stage 3: Workshop Report and Case Study Scenarios)

Case Study Scenario 1: Large catchment, relatively high diffuse, low WwTW loading NB all figures used and calculations made are hypothetical and for the purposes of comparing the scenarios only						
Relevant baseline details						
Catchment Area – 80,000 ha			Housing Growth predicted – 1300 over 20 years			
Total N loading to Estuary – 2000 T/yr			WwTW contribution of overall N load – 5%			
Target load reduction – 1500T/yr						
Source Attribution						
90% Agriculture of which 40% dairy (N losses 66kg/ha/y); 50% lowland grazing (25kg/ha/y N losses); 10% arable (20kg/ha/y N losses). 5% WwTW 5% Other						
Step 1 – Can development be delivered through a threshold-based approach (section 6 WG guidance)?						
<p>The overall housing growth is forecast to contribute 0.2% of the current total DIN loading to the estuary (4T/yr) by the end of the 20 year development period. The contribution to housing represents 0.26% of the target load reduction. Monitoring shows a variation in baseline concentrations at monitoring locations of up to 50% over the salinity range meaning there are currently significant fluctuations in nitrogen concentrations across time and space.</p> <p>The catchment is subject to the Control of Agricultural Pollution (CoAP) Regulations (as is the whole of Wales). Work has been carried out to assess the extent of restoration activity in the catchment. In line with the fair share principle that was applied during assessment of phosphate impacts in the freshwater bodies that flow into the estuary, there is significant activity to address diffuse sources including a nutrient trading scheme, producer led schemes, COAP enforcement, incentive led land conversion and buffer zone initiatives. All these activities will also impact on nitrogen losses. It is estimated that these actions will lead to a reduction in N loading of 835t/y over the plan period.</p>						
Target load reduction T/y	Additional loading (t/y) over plan period (20yy)	Reductions required in catchment with development	Potential reduction from AMP schemes (t/y)	Forecast reduction without development (t/y)	Adjusted forecast reduction (with development) (t/y)	Relative impact on reductions due to development ²
1500	4	1504	0	835	831	0.5%
<p>When considering the risk from planned development it is important to recognise that housing will be delivered across a 20 year plan period meaning the increase in overall loading (0.2% compared to a current baseline) will happen incrementally. Modelling of the expected contribution of those agricultural measures to load reduction by a milestone date (in this case the end of the 20 year plan period) has been used to inform a decision as to the risk to the achievement of the conservation objectives. Development will reduce the anticipated load</p>						

² (Additional loading over plan period/forecast reduction without development) *100

reductions by 0.5% compared to a situation without development. With reference to section 6.1.2 of the WG guidance, when applying a threshold-based approach **the central question is whether it can be demonstrated that a defined level of growth will not undermine the achievement of the conservation objectives.**

In this case, site restoration is almost entirely dependent on wider catchment actions targeted to agricultural sources and initiatives are being implemented by relevant authorities to deliver improvements. Much of the responsibility for the delivery of improvements rests with Natural Resources Wales but producer-led initiatives also play a key role. It is estimated the current initiatives will lead to a reduction of 835t/yr. Further improvements are yet to be secured to achieve the target load reduction of 1500t/yr, but the delivery of housing over the 20 year plan period will not meaningfully undermine or compromise the ability of the authorities concerned to secure further reductions as may be necessary through the proportionate use of statutory powers.

The overall contribution from planned development (4t/y by the end of the development period) is not appreciable given the relative contribution to nitrogen loading from housing sources. There is not credible evidence that the overall contribution from planned development will undermine the achievement of the conservation objectives through targeted measures in any meaningful way.

Step 2 – Can development be delivered in the absence of further mitigation (section 7 WG Guidance)?

N/A

Step 3 – Can development be delivered in accordance with a mitigation-based approach (section 8 WG guidance)?

N/A

Step 4 – Can development be delivered in accordance with a derogation-based approach (section 9 WG guidance)?

N/A

Summary and overall conclusion

Applying the principles established in the WG guidance for phosphates in rivers, it is determined that **the overall contribution to nitrogen within the marine SAC from planned development will have no likely significant effect.**

The site exceeds relevant standards for nitrogen, but the duty to deliver conservation measures and to take appropriate steps to avoid deterioration rests with the Welsh Government. The relative source attribution data has demonstrated that restoration is almost entirely dependent on catchment level actions and initiatives directed at agricultural sources which are being delivered in the main by relevant authorities.

An effect is only significant where it might undermine the achievement of the conservation objectives. There is no credible evidence to support a view that the delivery of development provided for within the plan will meaningfully undermine or hinder the ability of relevant authorities to adapt or modify current initiatives as part of their duty to take appropriate steps to avoid deterioration which are necessary to achieve the conservation objectives. No further assessment is required.

**Case Study Scenario 2A: Smaller catchment, primarily diffuse, moderate WwTW loading.
2a - Nutrient target known**

NB all figures used and calculations made are hypothetical and for the purposes of comparing the scenarios only

Relevant baseline details					
Catchment Area – 20,000 ha			Housing Growth predicted – 2250 over 20 years		
Total N loading to Estuary – 500 T/yr			WwTW contribution of overall N load – 40%		
Target load reduction – 300T/yr					
Source Attribution					
60% Agriculture of which 30% dairy (N losses 66kg/ha/y); 50% lowland grazing (25kg/ha/y N losses); 20% arable (20kg/ha/y N losses). 40% WwTW					
Step 1 – Can development be delivered through a threshold-based approach (section 6 WG guidance)?					
<p>Under scenario 2, total forecast loading from development is higher than scenario 1 at 1.4% of the current total loading to the estuary (7T/yr) and represents 2.3% of the target load reduction. Moreover there is a greater reliance on measures to reduce overall N from WwTW in achieving conservation objective nutrient targets. Nitrogen reduction is planned under AMP (with permit limits) for some of the WwTW.</p> <p>Nitrogen trends are flat and measures to deliver improvements will need to be directed to both wastewater and agricultural sources. Some catchment initiatives to deliver phosphorus improvements under Water Framework Directive are in place. Current initiatives include.</p> <ul style="list-style-type: none"> planned upgrades to wastewater treatment works in 2027 and 2030; work being delivered under the SAC Rivers project which will be implemented within the catchment of concern, including regulatory action and enforcement on agricultural sources; and Work being delivered through the RBMP Programme of measures voluntary local initiatives including producer-led schemes. <p>Under scenario 2a the nutrient target has been agreed and a load reduction of 300t/y is required. It is estimated that current AMP schemes and wider catchment initiatives will deliver improvements of 148t/yr.</p>					
Target load reduction T/y (2a)	Additional loading (t/y) over plan period (20yy)	Reductions required in catchment overall	Forecast reduction from planned measures without development (t/y)	Adjusted forecast reduction from planned measures (with development) (t/y)	Relative impact on reductions due to development ³
300	7	307	84 + 64 = 148	141	5 %
<p>In contrast to scenario 1, in this scenario the impact of development on the forecast reduction in loading is less easy to discount. The load reduction needed to offset the total planned development (over a 20 year period) is 7t/y. This additional loading is forecast to reduce the effects from delivery of the predicted reductions over the period, by around 5% .</p> <p>The overall contribution from planned development cannot be regarded as inconsequential, especially recognising the need to deliver reductions from water company assets as well as agricultural sources. Credible evidence exists that the overall contribution from planned</p>					

³ (Additional loading over plan period/forecast reduction without development) *100

development will undermine the achievement of the conservation objectives in a meaningful way.

Step 2 – Can development be delivered in the absence of further mitigation (section 7 WG guidance)?

The primary focus of NRW planned permit amendments is to achieve phosphorus targets, but amendments to deliver improvement in nitrogen may also be introduced. Amendments are defined on a fair share approach for phosphorus which assumes that other (proportionate) action will be taken on other sources. Fair share action to achieve nitrogen targets in estuaries and, in turn, the achievement of the conservation objectives have not yet been identified through the Review of Permits and the delivery of other action to secure necessary reductions from other sectors is anticipated. There is insufficient local evidence to allow reliance on other action to be taken and NRW have advised that nitrogen targets in estuaries will not be achieved through planned permit amendments alone (refer section 7.1 in WG guidance). Further mitigation will be required.

Step 3 – Can development be delivered in accordance with a mitigation-based approach (section 8 WG guidance)?

Step 3a - Has other fair share action been secured? (section 8.2 WG Guidance)

Fair share action to achieve the conservation objective targets has not yet been defined. Moreover “fair share” for nitrogen has only been determined for a small proportion of WwTW serving the catchment (nitrogen limits having not been applied to the other key WwTW). Appropriate steps have not been formally identified in accordance with Article 6(2) but there are initiatives to deliver improvements through planned regulatory action and enforcement in respect of agricultural sources. These measures are associated with a delivery mechanism through the SAC Rivers Project and the periodic review process but timescales for implementation have not yet been finalised and the measures currently secured are insufficient to deliver ‘fair share’ reductions. Measures currently in place will deliver 148t/yr against a target of 300t/yr; with reference to section 8.2.2 of WG guidance ‘fair share’ action has not yet been secured.

Step 3b - Is other fair share action achievable in practice (section 8.3 WG guidance)?

Regulatory and enforcement action targeted to agricultural sources is achievable in practice. NRW have statutory duties and powers to ensure that agricultural activities comply with existing legal requirements. Associated actions will be delivered within the catchment through the SAC Rivers (Nutrients) project. Whilst these measures are driven by objectives in terms of phosphate targets, they will incidentally also deliver reductions to nitrogen emissions. Non-statutory measures such as incentive schemes and producer led farm assurance schemes are also achievable in practice.

Measures currently in place will deliver 148t/yr against a target of 300t/yr. Additional measures to achieve further reductions of 152t/yr are required. It is important to recognise however that the target load reduction will not apply in a uniform manner across the entire catchment. In reality the waterbodies with higher exceedance, which will require the most intensive measures are, in this hypothetical case, localised and measures will need to be targeted accordingly. Delivery of duties under Article 6(2) is subject to Article 2(3) of the Habitats Directive and the timescales and steps to deliver further reductions can be agreed taking account of social, economic, cultural and regional requirements. It is agreed that proportionate use of statutory powers will be necessary in order for the additional reductions from WwTW and agricultural sources to be achievable in practice. The scale of reductions are such that relevant authorities agree that duties under Article 6(2) will be delivered over the medium to long term.

Step 3c - An integrated approach to the delivery of management, restoration and mitigation (section 8.4 and 11 in WG guidance)

The overall aim of an integrated approach is to coordinate actions to deliver a long-term improving trend in nutrient levels within SAC catchments whilst managing growth (and other threats and pressures) in accordance with the sustainable development principle.

Step 1 securing steps to avoid deterioration (section 11.3 WG guidance)

According to the WG guidance for phosphates action can be regarded as secure where:

- The scale of further improvements necessary to avoid deterioration from existing/ongoing activities has been estimated (as far as reasonably possible on the basis of information currently available);
- The 'appropriate steps' to be taken have been clearly identified and associated with an appropriate delivery mechanism, making proportionate use of statutory powers as necessary to facilitate delivery as soon as reasonably practicable;
- There is a clear timeframe for implementation of 'appropriate steps' to be taken with associated delivery progress milestones towards achievement of the conservation objective phosphorus targets;

Article 6(2) is an ongoing duty on the Welsh Government to avoid deterioration, NRW advice is clear that improvements in nitrogen levels are required and the scale of further improvements to achieve conservation objective targets has been estimated (as far as reasonably possible on the basis of information currently available). A suite of measures to deliver improvements must take account of social, economic, cultural and regional requirements (determined locally).

Appropriate steps to avoid deterioration include current initiatives such as:

1. planned upgrades to wastewater treatment works in 2027 and 2030
2. ongoing work being delivered under the SAC Rivers project which will be implemented within the catchment of concern, including an enhanced regulatory compliance and enforcement programme to address non-compliance within the agricultural sector.
3. Work underway through the Programme of measures under the RBMP

Current initiatives will form 'phase 1' of an approach under Article 6(2) (Y1-3). It is also recognised that further steps will be required involving:

4. Further upgrades to wastewater treatment works post 2030
5. Designation of the catchment as a Water Protection Zone (WPZ) by Welsh Government to enable further targeted measures to be delivered.
6. Review of Control of Agricultural Pollution Regulations to drive further improvements from agricultural activities.
7. A review of other permitted activities (beyond WwTW) in accordance with Article 6(3)
8. The proportionate use of statutory powers to deliver targeted management and restoration measures within high risk waterbodies to maximise ecological outcomes without being dependent upon landowner agreement.

Due to the lead-in time for the further steps it is proposed that these will be delivered under 'phase 2' of the Article 6(2) approach (Y3 onwards). With reference to step 8, it is anticipated that this step will be primarily targeted to address localised areas of exceedance where the general improvements across the catchment will be insufficient to achieve compliance within a given waterbody.

Delivery progress milestones will be defined against a suite of measures relating to

- Compliance and enforcement steps
- Delivery of RBMP Programme of measures
- AMP and Periodic review dates to deliver further upgrades to WwTW
- Implementation of any legislative reform identified as an appropriate step to avoid deterioration
- Designation of WPZ
- Options appraisal and identification of proportionate use of statutory powers to delivery targeted local measures

The suite of measures are considered to be appropriate given the information currently available

Step 2: Identifying integrated mitigation (section 11.4 WG guidance)

With reference to section 11.4 of WG guidance, integrated mitigation may involve entirely new measures but mitigation can be more closely integrated with the delivery of restoration where developer contributions:

- increase the scale, magnitude, or scope of planned restoration measures (over and above what would otherwise have been delivered); or
- speed up delivery of planned restoration measures beyond what would normally be delivered, where the current implementation timescales risk meaningful ecological deterioration in the interim.

It is agreed that an integrated approach to mitigation will adopt a phased approach. Phase 1 (y1-3) will initially involve developer contributions to fund a) two additional enforcement officer posts within the catchment to increase the delivery of enforcement and compliance action within the marine SAC catchment over and above the rate of delivery in the absence of development; and b) enhanced delivery timescales of two agreed measures within the RBMP Programme of Measures

The details of integrated mitigation during phase 2 (y3 onwards) will be finalised by the NMB taking account of monitoring outcomes from phase 1 but are anticipated to involve developer contributions to deliver targeted management and restoration measures within high risk waterbodies where landowner agreement has been secured and/or to increase the scale, magnitude or scope of other planned restoration measures.

Decisions and details concerning a need for further phases will be taken in due course, depending on outcomes from phase 1 and 2 measures/steps.

Step 3: Securing and delivering integrated mitigation (11.5 WG guidance)

Details of developer contributions will be agreed between relevant authorities and are likely to be based on nutrient loading rather than on a cost/dwelling basis. However, by way of a simplistic approach for purpose of illustration, some scenarios are considered below on the basis of 2,250 houses coming forward over 20 years

- Contributions of £1000/dwelling would provide £2.25M over 20 years equating to an annual budget of £112,500
- Contributions of £500/dwelling would provide £1.125M over 20 years equating to an annual budget of £56,250

The collection of developer contributions to deliver integrated approaches to mitigation (and how the section 106/CIL tests can be met) can be informed by approaches in England to deliver mitigation for recreational pressure⁴. It is agreed that the mitigation measures will ensure that the delivery of development will not result in a delay in the delivery of improvements which would otherwise be achieved in the absence of development.

Step 4 Monitoring and adaptive management (11.6 WG guidance)

The delivery of measures will be centrally co-ordinated through the Nutrient Management Board who will monitor the delivery of steps against pre-agreed milestones. A policy caveat approach will be taken involving the inclusion of a dedicated policy within the Development Plan which renders the granting of planning permission conditional upon the delivery milestones agreed in respect of appropriate steps to be taken under Article 6(2) as set out in step 1 above.

⁴ For example [Thames Basin Heaths](#), [Solent SPA](#) and associated [guidance on making up-front payment in lieu of entering s.106 agreements](#), [Essex Coast recreational Disturbance, Avoidance and Mitigation Strategy](#).

The policy caveat will have the effect that, in the event that delivery milestones are not achieved, the planning authority will not be able to rely on the integrated approach to mitigation. Bespoke mitigation measures will need to be identified for all planning applications leading to increased nutrient loading, through a nutrient neutrality based approach (refer section 8.6 and 15 in WG guidance), until such time as the milestones are back on track.

Policy caveat wording

‘Where development relies upon an integrated approach to mitigation (refer policy XX) to avoid adverse effects to the integrity of [insert European site(s)], it is only in accordance with the plan where delivery milestones set out in [insert document reference] have been met. Where delivery milestones have not been met, bespoke mitigation will be required to avoid adverse effect to site integrity from the development concerned’.

Step 4 – Can development be delivered in accordance with a derogation-based approach (section 9 WG guidance)?

N/A

Summary and overall conclusion

Applying the principles established in the WG guidance for phosphates in rivers, it is determined that the overall contribution to nitrogen within the marine SAC will have a likely significant effect.

The site has excessive nitrogen concentrations. The duty to deliver conservation measures and to take appropriate steps to avoid deterioration ultimately rests with the Welsh Government and the scale of improvements which are required have been estimated by Natural Resources Wales. Measures to deliver improvements are achievable in practice and a suite of measures have been identified which are already associated with delivery mechanisms. The scale of the improvements required are such that it is anticipated that further steps will be taken involving the proportionate use of statutory powers by relevant stakeholders depending on the measures needed.

Appropriate steps to avoid deterioration will involve a phased approach. In phase 1 measures will initially focus on regulatory compliance and enforcement initiatives alongside the measures being delivered under the RBMP Programme of Measures and wider voluntary initiatives. Delivery progress milestones have been agreed. Further steps involving the proportionate use of statutory powers to impose proactive management and restoration measures alongside other wider measures will be introduced in phase 2.

An integrated approach has been agreed involving (during phase 1) developer contributions to fast-track the delivery of enforcement action within the catchment to ensure that the delivery of development will not result in a delay in the delivery of improvements which would otherwise be achieved in the absence of development. Further contributions towards phase 2 measures will be defined during Y3 of the integrated approach.

Case Study Scenario 2B: Smaller catchment, primarily diffuse, moderate WwTW loading.**(b) Nutrient target not yet determined**

NB all figures used and calculations made are hypothetical and for the purposes of comparing the scenarios only

Relevant baseline details

Catchment Area – 20,000 ha	Housing Growth predicted – 2250 over 20 years
Total N loading to Estuary – 500 T/yr	WwTW contribution of overall N load – 40%

Source Attribution

60% Agriculture of which 30% dairy (N losses 66kg/ha/y); 50% lowland grazing (25kg/ha/y N losses); 20% arable (20kg/ha/y N losses).
40% WwTW

Step 1 – Can development be delivered through a threshold-based approach (section 6 WG guidance)?

Under scenario 2, total forecast loading from development is higher than scenario 1 (1.4% of the current total loading to the estuary compared to <0.2%). Moreover there is a greater reliance on measures to reduce overall N from WwTW in achieving favourable condition. N reduction is planned under AMP (with permit limits) for several of the WwTW.

Under **Scenario 2b** a nutrient target load reduction has not yet been agreed but it is recognised by all parties that current nitrogen levels are excessive and that reductions will be required. Nitrogen trends are flat and measures to deliver improvements will be directed to both wastewater and agricultural sources. Current initiatives include.

- planned upgrades to wastewater treatment works in 2027 and 2030;
- work being delivered under the SAC Rivers project which will be implemented within the catchment of concern, including regulatory action and enforcement on agricultural sources; and
- Work being delivered through the RBMP Programme of measures
- voluntary local initiatives including producer-led schemes.

The overall contribution from planned development cannot be regarded as inconsequential, especially recognising the need to deliver reductions from water company assets as well as agricultural sources. Credible evidence exists that the overall contribution from planned development will undermine the achievement of the conservation objectives in a meaningful way.

Step 2 – Can development be delivered in the absence of further mitigation (section 7 WG guidance)?

The primary focus of NRW planned permit amendments is to achieve phosphorus targets, but amendments to deliver improvement in nitrogen will also be introduced at some key WwTW. Amendments are defined on a fair share approach which assumes that other (proportionate) action will be taken on other sources. The achievement of nutrient targets in estuaries and, in turn, the achievement of the conservation objectives are therefore dependent upon the improvements being delivered through Review of Permits and the timely delivery of other action to secure necessary reductions from other sectors. There is insufficient local evidence to allow reliance on other action to be taken and NRW have advised that nitrogen targets in estuaries will not be achieved through planned permit amendments alone (refer section 7.1 in WG guidance). Further mitigation will be required.

Step 3 – Can development be delivered in accordance with a mitigation-based approach (section 8 WG guidance)?

Step 3a - Has other fair share action been secured? (section 8.2 WG Guidance)

In the absence of a defined nitrogen target load reduction the scale of improvements required cannot yet be estimated. Moreover “fair share” for nitrogen has only been determined for a small proportion of WwTW serving the catchment and nitrogen limits have not been applied to the many other WwTW. Appropriate steps have not been formally identified in accordance with Article 6(2) but there are initiatives to deliver improvements through planned regulatory action and enforcement in respect of agricultural sources. The WwTW planned measures are associated with a delivery mechanism (the periodic review process) but timescales for implementation have not yet been finalised and the sufficiency of measures cannot be estimated until a target load reduction has been agreed. With reference to section 8.2.2 of WG guidance other ‘fair share’ action has not yet been secured.

Step 3b - Is other fair share action achievable in practice? (section 8.3 in WG guidance)

Regulatory and enforcement action targeted to agricultural sources is achievable in practice. NRW have statutory duties and powers to ensure that agricultural activities comply with existing legal requirements alongside duties to take appropriate steps to avoid deterioration in accordance with Article 6(2). Action is also being delivered within the catchment in this case through the SAC Rivers project; whilst the measures are driven by objectives in terms of phosphate targets they will incidentally also deliver reductions to nitrogen emissions. Non-statutory measures such as incentive schemes and producer led farm assurance schemes are also achievable in practice.

Step 3c - An integrated approach to the delivery of management, restoration and mitigation (section 8.4 and 11 in WG guidance)

The overall aim of an integrated approach is to coordinate actions to deliver a long-term improving trend in nutrient levels within SAC catchments whilst managing growth (and other threats and pressures) in accordance with the sustainable development principle.

Step 1 securing steps to avoid deterioration (section 11.3 WG guidance)

According to the WG guidance for phosphorus action can be regarded as secure where:

- The scale of further improvements necessary to avoid deterioration from existing/ongoing activities has been estimated (as far as reasonably possible on the basis of information currently available);
- The ‘appropriate steps’ to be taken have been clearly identified and associated with an appropriate delivery mechanism, making proportionate use of statutory powers as necessary to facilitate delivery as soon as reasonably practicable;
- There is a clear timeframe for implementation of ‘appropriate steps’ to be taken with associated delivery progress milestones towards achievement of the conservation objective phosphorus targets;

The absence of defined nutrient target load reductions for nitrogen means that application to this scenario 2b will necessarily involve adaptation, in particular in respect of the first bullet point. Article 6(2) is an ongoing duty on the Welsh Government to avoid deterioration, NRW advice is clear that improvements in nitrogen levels are required but, on the basis of information currently available, the scale of further improvements to achieve conservation objective targets cannot yet be estimated. Steps to avoid deterioration must nevertheless be taken (refer paragraph 11.2.6 of WG guidance) on the basis of the risk of deterioration or damage and, in the meantime, it is proposed that a suite of measures to deliver improvements is agreed taking account of social, economic, cultural and regional requirements.

Discussion (hypothetical) with NRW achieved a consensus that, given current understanding, identifying appropriate steps to avoid deterioration should initially start with consideration of the sufficiency of existing initiatives which include:

1. planned upgrades to wastewater treatment works in 2027 and 2030
2. ongoing work being delivered under the SAC Rivers project which will be implemented within the catchment of concern, including an enhanced regulatory compliance and enforcement programme to address non-compliance within the agricultural sector.
3. Work underway through the Programme of measures under the RBMP
4. Voluntary local initiatives including producer-led schemes

Measures 1, 2 are regulatory measures whilst measure 3 involves both regulatory measures and wider management/restoration measures. Measures 4 is voluntary. Measures 1-4 have a timeframe for implementation and are associated with suitable delivery mechanisms.

The scale of improvement from regulatory and enforcement action is challenging to estimate and it was agreed that, in the absence of nitrogen target load reductions, the proportionate use of statutory powers to *impose* measures (which may currently be voluntary) would not be appropriate until the scale of improvements that might be achieved through enforcement and compliance with existing legal obligations is better understood.

The approach to Article 6(2) will involve a phased approach to the delivery of steps. Phase 1 would involve a focus on regulatory compliance and enforcement initiatives alongside other wider measures under the RBMP programme of measures, and delivery progress milestones would be defined against

- the number of farms visited against a defined timeframe
- rate of uptake of available funding and grant schemes to deliver improvements
- enforcement and compliance actions where farmers choose not to deliver necessary improvements
- the delivery of measures under the River Basin Management Plan.

Phase 2 would be initiated when the potential for improvements from compliance and enforcement measures are better understood, and target load reductions are available. Further steps involving wider actions and potentially the proportionate use of statutory powers to impose targeted proactive management and restoration measures will be taken if necessary under phase 2. The proposed phased approach is considered to be appropriate given the information currently available

Step 2: Identifying integrated mitigation (section 11.4 WG guidance)

With reference to section 11.4 of WG guidance, integrated mitigation may involve entirely new measures but mitigation can be more closely integrated with the delivery of restoration where developer contributions:

- increase the scale, magnitude, or scope of planned restoration measures (over and above what would otherwise have been delivered); or
- speed up delivery of planned restoration measures beyond what would normally be delivered, where the current implementation timescales risk meaningful ecological deterioration in the interim.

It is agreed that an integrated approach to mitigation will, initially, involve developer contributions to fund one additional enforcement officer post within the catchment to increase the delivery of enforcement and compliance action within the marine SAC catchment over and above the rate of delivery in the absence of development.

Step 3: Securing and delivering integrated mitigation (section 11.5 WG guidance)

Details of developer contributions will be agreed between relevant authorities and are likely to be based on nutrient loading rather than on a cost/dwelling basis. However, by way of a simplistic approach for purpose of illustration, some scenarios are considered below on the basis of 2,250 houses coming forward over 20 years

- Contributions of £1000/dwelling would provide £2.25M over 20 years equating to an annual budget of £112,500

- Contributions of £500/dwelling would provide £1.125M over 20 years equating to an annual budget of £56,250

The collection of developer contributions to deliver integrated approaches to mitigation (and how the section 106/CIL tests can be met) can be informed by approaches in England to deliver mitigation for recreational pressure⁵. It is agreed that the increased rate of enforcement action will ensure that the delivery of development will not result in a delay in the delivery of improvements which would otherwise be achieved in the absence of development.

Step 4 Monitoring and adaptive management (section 11.6 WG guidance)

The delivery of measures will be centrally co-ordinated through the Nutrient Management Board who will monitor the delivery of steps against pre-agreed milestones. A policy caveat approach will be taken involving the inclusion of a dedicated policy with the Development Plan which renders the granting of planning permission conditional upon the delivery milestones agreed in respect of appropriate steps to be taken under Article 6(2) as set out in step 1 above.

The policy caveat will have the effect that, in the event that delivery milestones are not achieved, the planning authority will not be able to rely on the integrated approach to mitigation. Bespoke mitigation measures will need to be identified for all planning applications leading to increased nutrient loading, through a nutrient neutrality based approach (refer section 8.6 and 15 in WG guidance), until such time as the milestones are back on track.

Policy caveat wording

‘Where development relies upon an integrated approach to mitigation (refer policy XX) to avoid adverse effects to the integrity of [insert European site(s)], it is only in accordance with the plan where delivery milestones set out in [insert document reference] have been met. Where delivery milestones have not been met, bespoke mitigation will be required to avoid adverse effect to site integrity from the development concerned’.

Step 4 – Can development be delivered in accordance with a derogation-based approach (section 9 WG guidance)?

N/A

Summary and overall conclusion

Applying the principles established in the WG guidance for phosphorus in rivers, it is determined that the overall contribution to nitrogen within the marine SAC will have a likely significant effect.

The site has excessive nitrogen concentrations. The duty to deliver conservation measures and to take appropriate steps to avoid deterioration rests with the Welsh Government but the absence of formally agreed nitrogen targets means it is not possible to estimate the scale of improvements which are required. Measures to deliver improvements are achievable in practice and a suite of measures have been identified which are already associated with delivery mechanisms. In the absence of formally agreed targets, the proportionate use of statutory powers to impose proactive management and restoration steps (which are currently voluntary) is not currently considered to be appropriate until the scale of improvements that might be achieved through enforcement and compliance with existing legal obligations is better understood.

Appropriate steps to avoid deterioration will involve a phased approach. In phase 1 measures will initially focus on regulatory compliance and enforcement initiatives alongside the measures being delivered under the RBMP Programme of Measures and wider voluntary

⁵ For example [Thames Basin Heaths](#), [Solent SPA](#) and associated [guidance on making up-front payment in lieu of entering s.106 agreements](#), [Essex Coast recreational Disturbance, Avoidance and Mitigation Strategy](#).

initiatives. Delivery progress milestones will have to be agreed. Further measures involving the proportionate use of statutory powers to impose proactive management and restoration measures will be introduced in phase 2 if considered necessary when a nitrogen target has been defined and the potential for sufficient improvements from compliance and enforcement measures are better understood. If delivery milestones cannot be met, then a nutrient neutrality based approach would be needed for individual applications.

An integrated approach has been agreed involving (during phase 1) developer contributions to fast-track the delivery of enforcement action within the catchment to ensure that the delivery of development will not result in a delay in the delivery of improvements which would otherwise be achieved in the absence of development. Further contributions towards phase 2 measures will be defined by the NMB, with assistance from Natural Resources Wales, as necessary based on the information from phase 1 monitoring and the publication of nitrogen targets for the site.

Case Study Scenario 3: Smaller catchment and limited options to deliver meaningful restoration within one of the three SAC waterbodies.

NB all figures used and calculations made are hypothetical and for the purposes of comparing the scenarios only

Relevant baseline details

Catchment Area – 20,000 ha	Housing Growth predicted – 6000 over 20 years
Total N loading to Estuary – 600 T/yr	WwTW contribution of overall N load – 35%
Target N load reduction needed – 200 T/y	

Source Attribution

65% Agriculture of which 25% dairy (N losses 66kg/ha/y); 55% lowland grazing (25kg/ha/y N losses); 20% arable (20kg/ha/y N losses).

35% WwTW

Step 1 – Can development be delivered through a threshold-based approach?

Under scenario 3, total forecast loading from development (18TN/y by the end of the development period) is 3.1% of the current total loading (9% of target load reduction) to the estuary. N reduction is planned under AMP (with permit limits) for some of the WwTW but any improvements are scheduled for after 2030. Opportunities to deliver meaningful reductions from agricultural sources vary within the SAC catchment due to local circumstances. The SAC catchment comprises 3 waterbodies and significant challenges in availability of feasible restoration measures have been identified in one waterbody (waterbody B) where 2000 homes are to be delivered.

It is recognised by all parties that current nitrogen levels are excessive and that reductions will be required. Nitrogen trends are flat and measures to deliver improvements will be directed to both wastewater and agricultural sources. Current initiatives include.

- All waterbodies - planned upgrades to wastewater treatment works post 2030;
- All waterbodies - Work being delivered through the RBMP Programme of measures
- Waterbodies A and C - work being delivered under the SAC Rivers project (in connection with upstream riverine SACs) including regulatory action and enforcement on agricultural sources; and
- Waterbody C - voluntary local initiatives including producer-led schemes.

The overall contribution from planned development cannot be regarded as inconsequential, especially recognising the need to deliver reductions from water company assets as well as agricultural sources. Credible evidence exists that the overall contribution from planned development will undermine the achievement of the conservation objectives in a meaningful way.

Step 2 – Can development be delivered in the absence of further mitigation?

The primary focus of NRW planned permit amendments is to achieve phosphorus targets, but amendments to deliver improvement in nitrogen will also be introduced at some WwTW. Amendments are defined on a fair share approach which assumes that other (proportionate) action will be taken on other sources. The achievement of nutrient targets in estuaries and, in turn, the achievement of the conservation objectives are therefore dependent upon the improvements being delivered through Review of Permits **and** the timely delivery of other action to secure necessary reductions from other sectors. There is insufficient local evidence to allow reliance on other action to be taken and NRW have advised that nitrogen targets in

estuaries will not be achieved through planned permit amendments alone (refer section 7.1 in WG guidance). Further mitigation will be required.

Step 3 – Can development be delivered in accordance with a mitigation-based approach?

Step 3a - Has other fair share action been secured? (section 8.2 WG Guidance)

'Fair share' for nitrogen has only been determined for a small proportion of WwTW serving the catchment (nitrogen limits have not been applied to the other WwTW). Appropriate steps have not been formally identified in accordance with Article 6(2) but there are initiatives to deliver improvements through planned regulatory action and enforcement in respect of agricultural sources affecting waterbodies A and C. These measures are associated with a delivery mechanism through the SAC Rivers Project (for riverine SACs upstream of the estuary) and the periodic review process, but timescales for implementation have not yet been finalised and the measures currently secured are insufficient to deliver 'fair share' reductions. With reference to section 8.2.2 of WG guidance other 'fair share' action has not yet been secured.

Step 3b - Is other fair share action achievable in practice? (section 8.3 in WG guidance)

Regulatory and enforcement action targeted to agricultural sources is achievable in practice for waterbodies A and C. NRW have statutory duties and powers to ensure that agricultural activities comply with existing legal requirements alongside duties to take appropriate steps to avoid deterioration in accordance with Article 6(2). Action is also being delivered within the catchment through the SAC Rivers project; whilst the measures are driven by objectives in terms of phosphate targets they will incidentally also deliver reductions to nitrogen emissions. Non-statutory measures such as incentive schemes and producer led farm assurance schemes are also achievable in practice.

Local circumstances relevant to waterbody B are such that fair share action is not considered to be achievable in practice.

Step 3c - An integrated approach to the delivery of management, restoration and mitigation (section 8.4 and 11 in WG guidance)

An integrated approach to mitigation is explored in respect of development within the catchments of waterbodies A and C only. An integrated approach to mitigation is not achievable in practice for Waterbody B.

The overall aim of an integrated approach is to coordinate actions to deliver a long-term improving trend in nutrient levels within SAC whilst managing growth (and other threats and pressures) in accordance with the sustainable development principle.

Step 1 securing steps to avoid deterioration (section 11.3 WG guidance)

According to the WG guidance for phosphorus action can be regarded as secure where:

- The scale of further improvements necessary to avoid deterioration from existing/ongoing activities has been estimated (as far as reasonably possible on the basis of information currently available);
- The 'appropriate steps' to be taken have been clearly identified and associated with an appropriate delivery mechanism, making proportionate use of statutory powers as necessary to facilitate delivery as soon as reasonably practicable;
- There is a clear timeframe for implementation of 'appropriate steps' to be taken with associated delivery progress milestones towards achievement of the conservation objective phosphorus targets;

For waterbodies A and C - Measures currently in place will deliver 132t/yr against a target of 200t/yr. Additional measures to achieve further reductions of 68t/yr are required. It is important to recognise however that the target load reduction will not apply in a uniform manner across each waterbody. Waterbody A has a higher exceedance compared to waterbody C. More intensive measures, will be localised and measures will need to be targeted accordingly. Delivery of duties under Article 6(2) is subject to Article 2(3) of the Habitats Directive and the

timescales and steps to deliver further reductions can be agreed taking account of social, economic, cultural and regional requirements.

It is agreed that proportionate use of statutory powers will be necessary in order for the additional reductions from WwTW and agricultural sources to be achievable in practice for waterbody A. The scale of reductions are such that relevant authorities agree that duties under Article 6(2) will be delivered over the medium to long term. The exercise of statutory powers for waterbody C is less clear and will be subject to review.

Article 6(2) is an ongoing duty on the Welsh Government to avoid deterioration, NRW advice is clear that improvements in nitrogen levels are required and the scale of further improvements to achieve conservation objective targets has been estimated (as far as reasonably possible on the basis of information currently available). A suite of measures to deliver improvements must take account of social, economic, cultural and regional requirements. Appropriate steps to avoid deterioration include current initiatives such as:

1. planned upgrades to wastewater treatment works from 2030
2. ongoing work being delivered under the SAC Rivers project which will be implemented within the catchment of concern, including an enhanced regulatory compliance and enforcement programme to address non-compliance within the agricultural sector.
3. Work underway through the Programme of measures under the RBMP

Current initiatives will form 'phase 1' of an approach under Article 6(2) (Y1-3). It is also recognised that further steps will be required in waterbody A involving:

4. Consideration of legislative reform of Control of Agricultural Pollution Regulations to deliver further improvements from agricultural activities, including a review of the need for HRA where a farmer notifies NRW of an intention to apply manures at a level above 170kg/ha/yr under the Water Resources (Control of Agricultural Pollution) (Wales) Regs (2021)
5. A review of other permitted activities (beyond WwTW) in accordance with Article 6(3), recognising particular risks from the disposal of manure from intensive pig and poultry units.
6. The proportionate use of statutory powers to deliver targeted management and restoration measures to maximise ecological outcomes without being dependent upon landowner agreement.

Due to the lead-in time for the further steps it is proposed that these will be delivered under 'phase 2' of the Article 6(2) approach (Y3 onwards). With reference to measure 6, it is anticipated that this step will be primarily targeted to address localised areas of exceedance where the general improvements across the catchment will be insufficient to achieve compliance within a given waterbody.

Delivery progress milestones will be defined against a suite of measures relating to

- Compliance and enforcement steps
- Delivery of RBMP Programme of measures
- AMP and Periodic review dates to deliver further upgrades to WwTW
- Legislative reform to Control of Agricultural Pollution Regulations
- Options appraisal and identification of proportionate use of statutory powers to delivery targeted local measures

The suite of measures are considered to be appropriate given the information currently available.

Step 2: Identifying integrated mitigation (section 11.4 WG guidance)

With reference to section 11.4 of WG guidance, integrated mitigation may involve entirely new measures but mitigation can be more closely integrated with the delivery of restoration where developer contributions:

- increase the scale, magnitude, or scope of planned restoration measures (over and above what would otherwise have been delivered); or
- speed up delivery of planned restoration measures beyond what would normally be delivered, where the current implementation timescales risk meaningful ecological deterioration in the interim.

It is agreed that an integrated approach to mitigation will adopt a phased approach. Phase 1 (y1-3) will initially involve developer contributions to fund a) two additional enforcement officer posts within the catchment to increase the delivery of enforcement and compliance action over and above the rate of delivery in the absence of development; and b) enhanced delivery timescales of two agreed measures within the RBMP Programme of Measures

The details of integrated mitigation during phase 2 (y3 onwards) will be finalised by the Nutrient Management Board (NMB) taking account of monitoring outcomes from phase 1 but are anticipated to involve developer contributions to deliver targeted management and restoration measures where landowner agreement has been secured and/or to increase the scale, magnitude or scope of other planned restoration measures. Decisions and details concerning a need for further phases will be taken in due course, depending on outcomes from phase 1 and 2 measures/steps.

Step 3: Securing and delivering integrated mitigation (section 11.5 WG guidance)

Details of developer contributions will be agreed between relevant authorities and are likely to be based on nutrient loading rather than on a cost/dwelling basis. However, by way of a simplistic approach for purpose of illustration, some scenarios are considered below on the basis of 6,000 houses coming forward over 20 years

- Contributions of £1000/dwelling would provide £6M over 20 years equating to an annual budget of £300,000
- Contributions of £500/dwelling would provide £3M over 20 years equating to an annual budget of £150,000

The collection of developer contributions to deliver integrated approaches to mitigation (and how the section 106/CIL tests can be met) can be informed by approaches in England to deliver mitigation for recreational pressure⁶. It is agreed that the mitigation measures will ensure that the delivery of development will not result in a delay in the delivery of improvements which would otherwise be achieved in the absence of development.

Step 4 Monitoring and adaptive management (section 11.6 WG guidance)

The delivery of measures will be centrally co-ordinated through the Nutrient Management Board who will monitor the delivery of steps against pre-agreed milestones. A policy caveat approach will be taken involving the inclusion of a dedicated policy with the Development Plan which renders the granting of planning permission conditional upon the delivery milestones agreed in respect of appropriate steps to be taken under Article 6(2) as set out in step 1 above.

The policy caveat will have the effect that, in the event that delivery milestones are not achieved, the planning authority will not be able to rely on the integrated approach to mitigation. Bespoke mitigation measures will need to be identified for all planning applications leading to increased nutrient loading, through a nutrient neutrality based approach (refer section 8.6 and 15 in WG guidance), until such time as the milestones are back on track.

Policy caveat wording

⁶ For example [Thames Basin Heaths](#), [Solent SPA](#) and associated [guidance on making up-front payment in lieu of entering s.106 agreements](#), [Essex Coast recreational Disturbance, Avoidance and Mitigation Strategy](#).

‘Where development relies upon an integrated approach to mitigation (refer policy XX) to avoid adverse effects to the integrity of [insert European site(s)], it is only in accordance with the plan where delivery milestones set out in [insert document reference] have been met. Where delivery milestones have not been met, bespoke mitigation will be required to avoid adverse effect to site integrity from the development concerned’.

Step 3d – Can developer-led mitigation to secure nutrient neutrality over the lifetime of development be secured? (section 8.6 and 15 in WG guidance)

Waterbody B

An integrated approach to delivery of mitigation cannot be relied upon in respect of development connecting to WwTW within Waterbody B due to local circumstances and fair share measures not being achievable in practice.

Options for nutrient neutrality were considered in respect of development allocation for 2000 homes within the catchment of waterbody B (with projected additional loading of 6.2TN/y by the end of the development period – i.e. >1% of total loading and >3% of the load reduction (across the entire SAC) required to meet conservation objectives) in view of the NRW nutrient neutrality principles. Principle 4 states:

Mitigation must not compromise the restoration of the SAC. This means not constraining those measures already in place or which may be required in future to maintain or restore the SAC. Implementation of mitigation measures through nutrient neutrality should not undermine the objectives in the Habitat Regulations aimed at restoring the site to favourable condition. For example, where there are limited options of mitigation available these should be used to maintain or improve the site rather than to enable more discharges to the SAC river.

Effective feasible restoration options are limited within the waterbody and nutrient neutrality within waterbody B would not be compliant with principle 4.

Nutrient N stripping will be included under future AMP rounds, but this will not result in removal of nutrients until the completion of AMP 9 (2035). Other mitigation options to avoid adverse effects were also explored. Land originally potentially available for development in the catchments of waterbodies A and C, that was not included in the allocations in the current plan could potentially provide a further 350 homes and the integrated approach to mitigation in these two catchments would still be achievable if these sites were to be added to the plan.

The Local Planning Authority takes the view that the stage in the plan preparation timetable allows for amendments to reallocate housing within the LPA boundary, and because this remains in line with the plan strategy, such that only 1650 homes are now allocated within the catchment of waterbody B. Effective feasible restoration options for the 1650 homes are still considered to be limited within the waterbody and nutrient neutrality within waterbody B would not be compliant with principle 4.

Step 4 – Can development be delivered in accordance with a derogation-based approach (section 9 in WG guidance)?

It is not possible to avoid adverse effects to site integrity from the delivery of development provided for within the plan within waterbody B. Of the 6000 houses within the plan, 1650 of them connect to WwTW upstream or within waterbody B, 200 of the homes affecting waterbody B are affordable homes. **As set out in paragraph 9.1.1 of the WG guidance a derogation-based approach should be viewed as a last resort. It is an expectation of Welsh Government that every effort will be made to identify threshold-based and mitigation-based approaches before a derogation approach is considered.**

Step 1: Demonstrating the absence of alternative solutions.

For the purpose of evaluating alternatives, discussions with neighbouring authorities have reached a consensus that redistribution of housing within neighbouring planning authority boundaries is not viable given the resultant delays in housing delivery and in recognition that nutrient constraints would still apply. The objectives of the plan are therefore agreed as being:

- A. to deliver 6000 houses by the end of the current plan period within the local planning authority to meet housing projections and any targets set out in [insert relevant WG policy wording at the time]
- B. to deliver 600 affordable homes in accordance with [insert relevant WG policy wording at the time]

Consideration of alternatives:

- Removing the houses within the catchment of waterbody B from the plan will not meet the objectives of the plan and is not an alternative solution
- All feasible options for reallocation of homes within the LPA have been included as mitigation measures. There are no further feasible options to deliver housing elsewhere within the plan area without introducing significant delays which would not meet the objectives to deliver 6000 homes, including the provision of affordable housing, by the end of the current plan period nor make an appropriate contribution to [insert relevant WG policy wording at the time].

There are no alternative solutions to meet the plan objectives.

Step 2: Imperative reasons of overriding public interest

The conservation interest at risk is the delay in the delivery of restoration from an additional 5TN/yr of nitrogen entering waterbody B of the SAC in the absence of feasible measures to deliver restoration. The additional contribution to the waterbody from the planned 1650 homes represents 0.9% of the overall total load to the estuary and 2.6% of the nitrogen compliance target load. With measures in catchments A and C expected to remove 132 TN/y in phase 1, the additional loading will mean that measures to achieve conservation objective targets across the SAC will need to remove a further 73 TN/y compared to a current requirement for additional N load reduction of 68 TN/y.

The public interest served by the delivery of the 1650 homes (200 of which are affordable homes) in catchment B is a local public interest which is relevant to social and economic considerations regarding living standards and availability of affordable homes for local families.

The Local Planning Authority is of the view that the scale of the additional loading compared to current nitrogen loading represents a minor (though not de minimis) increase. Whilst delivery of restoration will be hindered, the delay in achieving target reductions if feasible measures become available is modest. The LPA concludes that the public interest served by the delivery of the 1650 homes carries greater weight than the conservation interest at risk.

Step 3: Compensatory measures

The scale of additional loading is low and compensatory measures are agreed involving an adapted integrated approach to the delivery of mitigation for waterbodies A and C. The integrated approach will allow financial contributions to the delivery of compensatory measures within catchment C, whilst development in catchments A and C provide developer contributions in respect of the delivery of integrated mitigation measures.

Whilst effective measures to reduce overall nutrient loading are limited, compensatory measures within catchment C will involve a river restoration scheme to provide ecological enhancements and increased resilience within the catchment including:

- Enhancement of riparian habitat and flow regime to increase freshwater flows into the marine SAC to increase resilience to climate change

- Enhancement of spawning areas for qualifying SAC species which migrate through the marine SAC
- the removal of a barrier to migration for qualifying SAC fish species which migrate through the marine SAC.

Summary and overall conclusion

Applying the principles established in the WG guidance for phosphates in rivers, it is determined that the overall contribution to nitrogen within the marine SAC will have a likely significant effect. The site has excessive nitrogen concentrations. The duty to deliver conservation measures and to take appropriate steps to avoid deterioration ultimately rests with the Welsh Government and the scale of improvements which are required have been estimated by Natural Resources Wales. Measures to deliver improvements are achievable in practice in respect of waterbodies A and C. A suite of measures have been identified which are already associated with delivery mechanisms. The scale of the improvements required are such that it is anticipated that further steps will be taken involving the proportionate use of statutory powers within waterbody A. It was not possible to conclude no AEOI for development within waterbody B. Mitigation to reduce adverse effects involved the reallocation of 350 homes to the catchments of waterbodies A and C. The remaining 1650 homes within the catchment of water body B still represented an adverse effect to site integrity. An integrated approach to mitigation was not achievable in practice and effective feasible options to reduce nutrient loading were limited meaning nutrient neutrality within waterbody B would not be compliant with principle 4.

There were no alternative solutions to meet the overall plan objectives. The LPA, as the competent authority, has weighed conservation risks from the additional 1650 homes against the public interest that would be served by their delivery. The LPA is of the opinion that the public interest overrides the conservation interest at risk. Compensatory measures are secured by extending the integrated approach to restoration and mitigation to include the delivery of agreed compensatory measures.

<p>Case Study Scenario 4: Average catchment, primarily diffuse, an integrated approach not achievable in practice.</p> <p>NB all figures used and calculations made are hypothetical and for the purposes of comparing the scenarios only</p>	
Relevant baseline details	
Catchment Area – 35,000 ha	Housing Growth predicted – 3500 over 20 years
Total N loading to Estuary – 900 T/yr	WwTW contribution of overall N load – 25%
Target load reduction – 400T/yr	
<p>Source Attribution</p> <p>75% Agriculture of which 25% dairy; 65% lowland grazing; 10% arable. 25% WwTW</p>	
<p>Step 1 – Can development be delivered through a threshold-based approach (section 6 WG guidance)?</p> <p>Under scenario 4, total forecast loading from development is 1.2% of the current total loading to the estuary (10.8T/yr) by the end of the 20 year plan period. The loading represents 2.7% of the target nitrogen reduction. Nitrogen reduction is planned under AMP (with permit limits) for some of the WwTW but any improvements are scheduled for after 2030.</p> <p>It is recognised by all parties that current nitrogen levels are excessive and that reductions will be required. Nitrogen trends are flat and measures to deliver improvements will be directed to both wastewater and agricultural sources. Current initiatives include.</p> <ul style="list-style-type: none"> • Planned upgrades to wastewater treatment works post 2030; • Work being delivered through the RBMP Programme of measures • Voluntary local initiatives <p>The overall contribution from planned development cannot be regarded as inconsequential, especially recognising the need to deliver reductions from water company assets as well as agricultural sources. Credible evidence exists that the overall contribution from planned development will undermine the achievement of the conservation objectives in a meaningful way.</p>	
<p>Step 2 – Can development be delivered in the absence of further mitigation (section 7 WG guidance)?</p> <p>The primary focus of NRW planned permit amendments is to achieve phosphorus targets, but amendments to deliver improvement in nitrogen will also be introduced at some WwTW. Amendments are defined on a fair share approach which assumes that other (proportionate) action will be taken on other sources. The achievement of nutrient targets in estuaries and, in turn, the achievement of the conservation objectives are therefore dependent upon the improvements being delivered through Review of Permits and the timely delivery of other action to secure necessary reductions from other sectors. There is insufficient local evidence to allow reliance on other action to be taken and NRW have advised that nitrogen targets in estuaries will not be achieved through planned permit amendments alone (refer section 7.1 in WG guidance). Further mitigation will be required.</p>	
<p>Step 3 – Can development be delivered in accordance with a mitigation-based approach (section 8 WG guidance)?</p>	
<p>Step 3a - Has other fair share action been secured? (section 8.2 WG Guidance)</p>	

'Fair share' for nitrogen has only been determined for a small proportion of WwTW serving the catchment (nitrogen limits have not been applied to the other WwTW). Appropriate steps have not been formally identified in accordance with Article 6(2) and there are no initiatives to deliver improvements through planned regulatory action and enforcement in respect of agricultural sources. With reference to section 8.2.2 of WG guidance other 'fair share' action has not yet been secured.

Step 3b - Is other fair share action achievable in practice? (section 8.3 in WG guidance)

NRW have statutory duties and powers to ensure that agricultural activities comply with existing legal requirements alongside duties to take appropriate steps to avoid deterioration in accordance with Article 6(2). Non-statutory measures such as incentive schemes and producer led farm assurance schemes are also achievable in principle.

Fair share action is achievable in practice.

Step 3c - An integrated approach to the delivery of management, restoration and mitigation (section 8.4 and 11 in WG guidance)

Whilst fair share reductions are achievable in practice, and **the Welsh Government expects public bodies to work together to implement an integrated approach to the delivery of management, restoration and mitigation in Welsh SAC Rivers**, there has not been a sufficient commitment from relevant authorities to deliver initiatives.

Options involving a phased approach to the delivery of measures have been explored but the delivery of measures is dependent upon actions by other competent authorities and is beyond the scope of LPA powers.

With reference to paragraph 8.4.2 of the WG guidance the Local Planning Authority (LPA) formally asks other competent authorities to use their powers to protect the SAC thus triggering the [duty upon competent authorities to protect, conserve and restore European sites](#). The competent authorities involved are potentially able to take action, but offer no commitment to doing so. With reference to the duty, having decided not to use their powers, they provide 'clear and proper reasons explaining their decision' to the LPA.

The planning authority therefore conclude that an integrated approach to the delivery of management restoration and mitigation is not achievable in practice. With reference to paragraph 8.4.3 of the WG Guidance they provide an explanation to the Welsh Government as to why this is the case. Raising awareness as to the reasons why competent authorities are unable to take the necessary action over the timescale needed for the development to proceed to fulfil their duty to protect, conserve and restore European sites.

Step 3d – Can developer-led mitigation to secure nutrient neutrality over the lifetime of development be secured? (section 8.6 and 15 in WG guidance)

Measures to deliver reductions in nitrogen loading are achievable in practice and a nutrient neutrality type approach is explored.

With reference to section 15 of the WG guidance, the LPA is satisfied that the NRW nutrient neutrality principles can be complied with. The LPA applied the 'All Wales Nutrient Calculator' which is suitable for the catchment concerned and project proposers must:

- Calculate the overall increase in nutrient loading from their proposed development and the existing nutrient loading from the current land use.
- Calculate the overall increase in nutrient loading
- Identify proposed measures to reduce nutrient loading
- Calculate the reductions to be achieved from the proposed measures and demonstrate neutrality
- Secure and deliver the measures in accordance with the nutrient neutrality principles

A nutrient neutrality approach is adopted to facilitate the delivery of development.

Step 4 – Can development be delivered in accordance with a derogation-based approach (section 9 WG guidance)?

N/A

Summary and overall conclusion

Applying the principles established in the WG guidance for phosphorus in rivers, it is determined that the overall contribution to nitrogen within the marine SAC will have a likely significant effect.

The site has excessive nitrogen concentrations. The duty to deliver conservation measures and to take appropriate steps to avoid deterioration rests with the Welsh Government and the scale of improvements which are required have been estimated. Measures to deliver improvements are achievable in practice.

Relevant competent authorities are asked to use their powers to protect the SAC thus triggering the [duty upon competent authorities to protect, conserve and restore European sites](#). The competent authorities involved can take action, but do not commit to doing so and, with reference to their duty, provide 'clear and proper reasons explaining their decision' to the LPA. An integrated approach to management, restoration and mitigation is not deliverable in practice.

A nutrient-neutrality approach is agreed, in accordance with NRW nutrient neutrality principles.

Case Study Scenario 5: Large catchment, relatively high diffuse, moderate WwTW loading. Site comprises three water bodies with contrasting catchment characteristics
NB all figures used and calculations made are hypothetical and for the purposes of comparing the scenarios only

Relevant baseline details

Catchment Area – 60,000 ha	Housing Growth predicted – 7000 over 20 years
Total N loading to Estuary – 1800 T/yr	WwTW contribution of overall N load – 25%
Target load reduction – 1200T/yr	

Source Attribution

80% Agriculture of which 40% dairy (N losses 66kg/ha/y); 50% lowland grazing (25kg/ha/y N losses); 10% arable (20kg/ha/y N losses).
 20% WwTW

Step 1 – Can development be delivered through a threshold-based approach (section 6 WG guidance)?

The overall housing growth is forecast to contribute 1.2% of the current total DIN loading to the estuary (21.6 T/yr) by the end of the 20 year development period. The contribution to housing represents 1.8% of the target load reduction across the estuary as a whole.

The overall contribution from planned development cannot be regarded as inconsequential, especially recognising the need to deliver reductions from water company assets as well as agricultural sources. Credible evidence exists that the overall contribution from planned development might undermine the achievement of the conservation objectives in a meaningful way.

The housing provided for within the plan includes 750 affordable homes. The contribution from affordable housing represents 0.13% of the current total DIN loading to the estuary (2.33 T/yr) by the end of the 20 year development period. The contribution from affordable housing represents 0.2% of the target load reduction.

It is also the case that the Marine SAC comprises 3 waterbodies; nitrogen loading and housing distribution is not uniform across the SAC waterbody catchments.

Waterbody	% agriculture	%WwTW	housing	Target N reduction
A	90	10	250	200
B	70	30	2450	400
C	75	25	4300	600

- The contribution from housing in waterbody A will be 0.8T/yr by the end of the plan period which is 0.4% of the target load reduction for that waterbody.
- The contribution from housing in waterbody B will be 7.6T/yr by the end of the plan period which is 1.9% of the target load reduction.
- The contribution from housing in waterbody C will be 13.3T/yr by the end of the plan period which is 2.2% of the target load reduction.

In line with the fair share principle that was applied during assessment of phosphate impacts in the freshwater bodies that flow into the estuary, there is significant activity to address diffuse sources including a nutrient trading scheme, producer led schemes, COAP enforcement, incentive led land conversion and buffer zone initiatives. All these activities will also impact on

nitrogen losses. These activities are targeted to agricultural sources and will therefore exert the greatest relative influence within waterbody A.

The overall contribution from affordable housing (0.13% of DIN loading and 0.2% of target load reduction) could, in principle, be argued to be inconsequential. It is also the case that the overall contribution from development within the catchment of waterbody A (0.4% of target reduction for that waterbody; 0.04% of total loading; and 0.07% of reduction required across the estuary as a whole) could be regarded as inconsequential.

The Local Planning Authority (LPA) considers options in consultation with stakeholders. The delivery of affordable housing is usually incorporated into mixed development proposals (including non-affordable housing). Developer feedback is that there is low likelihood of applications coming forward which only relate to affordable housing, meaning a de minimis approach to affordable housing is unlikely to avoid a need for mitigation (which would be triggered by the non-affordable component of applications including provision for affordable homes). The LPA were also mindful that, in some cases, the final quantum of affordable housing delivered in a given scheme differs from what was originally planned potentially raising challenges in practice when applying a de minimis approach.

The LPA decide instead to adopt a de minimis approach to housing within the catchment of waterbody A. When considering the risk from planned development it is recognised that housing will be delivered across a 20 year plan period meaning the increase in overall loading (0.4% of the N target load reduction) will happen incrementally. An estimate of the expected contribution of existing agricultural measures to load reduction by the end of the 20 year plan period has been used to inform a decision as to the risk from development to the achievement of the conservation objectives. With reference to section 6.1.2 of the WG guidance, when applying a threshold-based approach **the central question is whether it can be demonstrated that a defined level of growth will not undermine the achievement of the conservation objectives.**

In this case, site restoration within the catchment of waterbody A is almost entirely dependent on wider catchment actions targeted to agricultural sources and initiatives are being implemented by relevant authorities to deliver improvements. Primary responsibility for the delivery of improvements within waterbody A rests with Natural Resources Wales but producer-led initiatives also play a key role. It is estimated the current initiatives will lead to a reduction of 140t/yr within waterbody A. Further improvements are yet to be secured to achieve the target load reduction of 60t/yr, but the delivery of housing over the 20 year plan period will not meaningfully undermine or compromise the ability of the authorities concerned to secure further reductions as may be necessary through the proportionate use of statutory powers.

Step 2 – Can development be delivered in the absence of further mitigation (section 7 WG guidance)?

The contributions from housing to waterbodies B and C cannot be delivered in the absence of further mitigation.

Step 3 – Can development be delivered in accordance with a mitigation-based approach (section 8 WG guidance)?

Step 3a - Has other fair share action been secured? (section 8.2 WG Guidance)

Appropriate steps to avoid deterioration have not been formally identified in waterbodies B and C in accordance with Article 6(2) and there are no initiatives to deliver improvements through planned regulatory action and enforcement in respect of agricultural sources. With reference to section 8.2.2 of WG guidance other 'fair share' action has not yet been secured.

Step 3b - Is other fair share action achievable in practice? (section 8.3 in WG guidance)

NRW have statutory duties and powers to ensure that agricultural activities comply with existing legal requirements alongside duties to take appropriate steps to avoid deterioration in accordance with Article 6(2). Non-statutory measures such as incentive schemes and producer led farm assurance schemes are also achievable in principle.

Fair share action is achievable in practice.

Step 3c - An integrated approach to the delivery of management, restoration and mitigation (section 8.4 and 11 in WG guidance)

An integrated approach to mitigation is explored in respect of development within the catchments of waterbodies B and C. The overall aim of an integrated approach is to coordinate actions to deliver a long-term improving trend in nutrient levels within SAC whilst managing growth (and other threats and pressures) in accordance with the sustainable development principle.

Step 1 securing steps to avoid deterioration (section 11.3 WG guidance)

According to the WG guidance for phosphorus action can be regarded as secure where:

- The scale of further improvements necessary to avoid deterioration from existing/ongoing activities has been estimated (as far as reasonably possible on the basis of information currently available);
- The 'appropriate steps' to be taken have been clearly identified and associated with an appropriate delivery mechanism, making proportionate use of statutory powers as necessary to facilitate delivery as soon as reasonably practicable;
- There is a clear timeframe for implementation of 'appropriate steps' to be taken with associated delivery progress milestones towards achievement of the conservation objective phosphorus targets;

Waterbodies B and C are subject to the Control of Agricultural Pollution (CoAP) Regulations (as is the whole of Wales). Work has been carried out to assess the extent of restoration activity in the catchment. It is estimated that these actions will lead to a reduction in N loading of 400t/yr over the plan period against a target of 1000t/yr. Additional measures to achieve further reductions of 600t/yr are required. It is important to recognise however that the target load reduction will not apply in a uniform manner. More intensive measures, will be localised and measures will need to be targeted accordingly. Delivery of duties under Article 6(2) is subject to Article 2(3) of the Habitats Directive and the timescales and steps to deliver further reductions can be agreed taking account of social, economic, cultural and regional requirements.

It is agreed that proportionate use of statutory powers will be necessary in order for the additional reductions from WwTW and agricultural sources to be achievable in practice for waterbodies B and C. The scale of reductions are such that relevant authorities agree that duties under Article 6(2) will be delivered over the medium to long term.

Article 6(2) is an ongoing duty on the Welsh Government to avoid deterioration, NRW advice is clear that improvements in nitrogen levels are required and the scale of further improvements to achieve conservation objective targets has been estimated (as far as reasonably possible on the basis of information currently available). A suite of measures to deliver improvements must take account of social, economic, cultural and regional requirements. Due to the lead-in time for some of the steps it is agreed that a phased approach is taken to the delivery of measures. Certain measures will be targeted to address localised areas of exceedance where the general improvements across the catchment will be insufficient to achieve compliance within a given waterbody.

Delivery progress milestones will be defined against a suite of measures relating to

- Compliance and enforcement steps
- Delivery of RBMP Programme of measures

- AMP and Periodic review dates to deliver further upgrades to WwTW
- Legislative reform to Control of Agricultural Pollution Regulations
- Options appraisal and identification of proportionate use of statutory powers to delivery targeted local measures

The suite of measures are considered to be appropriate given the information currently available.

Step 2: Identifying integrated mitigation (section 11.4 WG guidance)

With reference to section 11.4 of WG guidance, integrated mitigation may involve entirely new measures but mitigation can be more closely integrated with the delivery of restoration where developer contributions:

- increase the scale, magnitude, or scope of planned restoration measures (over and above what would otherwise have been delivered); or
- speed up delivery of planned restoration measures beyond what would normally be delivered, where the current implementation timescales risk meaningful ecological deterioration in the interim.

It is agreed that an integrated approach to mitigation will adopt a phased approach. Phase 1 (y1-3) will initially involve developer contributions to fund a) an additional enforcement officer post for each waterbody to increase the delivery of enforcement and compliance action over and above the rate of delivery in the absence of development; and b) enhanced delivery timescales of two agreed measures within the RBMP Programme of Measures

The details of integrated mitigation during phase 2 (y3 onwards) will be finalised by the Nutrient Management Board (NMB) taking account of monitoring outcomes from phase 1 but are anticipated to involve developer contributions to deliver targeted management and restoration measures where landowner agreement has been secured and/or to increase the scale, magnitude or scope of other planned restoration measures. Decisions and details concerning a need for further phases will be taken in due course, depending on outcomes from phase 1 and 2 measures/steps.

Step 3: Securing and delivering integrated mitigation (section 11.5 WG guidance)

Details of developer contributions will be agreed between relevant authorities and are likely to be based on nutrient loading rather than on a cost/dwelling basis. However, by way of a simplistic approach for purpose of illustration, some scenarios are considered below on the basis of 6,750 houses coming forward over 20 years

- Contributions of £1000/dwelling would provide £6.75M over 20 years equating to an annual budget of £337,500
- Contributions of £500/dwelling would provide £3.375M over 20 years equating to an annual budget of £168,750

The collection of developer contributions to deliver integrated approaches to mitigation (and how the section 106/CIL tests can be met) can be informed by approaches in England to deliver mitigation for recreational pressure⁷. It is agreed that the mitigation measures will ensure that the delivery of development will not result in a delay in the delivery of improvements which would otherwise be achieved in the absence of development.

Step 4 Monitoring and adaptive management (section 11.6 WG guidance)

The delivery of measures will be centrally co-ordinated through the Nutrient Management Board who will monitor the delivery of steps against pre-agreed milestones. A policy caveat approach will be taken involving the inclusion of a dedicated policy with the Development Plan

⁷ For example [Thames Basin Heaths](#), [Solent SPA](#) and associated [guidance on making up-front payment in lieu of entering s.106 agreements](#), [Essex Coast recreational Disturbance, Avoidance and Mitigation Strategy](#).

which renders the granting of planning permission conditional upon the delivery milestones agreed in respect of appropriate steps to be taken under Article 6(2) as set out in step 1 above.

The policy caveat will have the effect that, in the event that delivery milestones are not achieved, the planning authority will not be able to rely on the integrated approach to mitigation. Bespoke mitigation measures will need to be identified for all planning applications leading to increased nutrient loading, through a nutrient neutrality based approach (refer section 8.6 and 15 in WG guidance), until such time as the milestones are back on track.

Policy caveat wording

‘Where development relies upon an integrated approach to mitigation (refer policy XX) to avoid adverse effects to the integrity of [insert European site(s)], it is only in accordance with the plan where delivery milestones set out in [insert document reference] have been met. Where delivery milestones have not been met, bespoke mitigation will be required to avoid adverse effect to site integrity from the development concerned’.

Step 3d – Can developer-led mitigation to secure nutrient neutrality over the lifetime of development be secured? (section 8.6 and 15 in WG guidance)

N/A

Step 4 – Can development be delivered in accordance with a derogation-based approach (section 9 WG guidance)?

N/A

Summary and overall conclusion

Applying the principles established in the WG guidance for phosphates in rivers, it is determined that **the overall contribution to nitrogen within the marine SAC from planned development within the catchment of waterbody A will have no likely significant effect.**

The site exceeds relevant standards for nitrogen, but the duty to deliver conservation measures and to take appropriate steps to avoid deterioration ultimately rests with the Welsh Government. The relative source attribution data has demonstrated that restoration within waterbody A is almost entirely dependent on catchment level actions and initiatives directed at agricultural sources which are being delivered by Natural Resources Wales.

An effect is only significant where it might undermine the achievement of the conservation objectives. There is no credible evidence to support a view that the delivery of development provided for within the plan within waterbody A will meaningfully undermine or hinder the ability of relevant authorities, to adapt or modify current initiatives as part of their duty to take appropriate steps to avoid deterioration which are necessary to achieve the conservation objectives. No further assessment is required for development within Waterbody A.

An integrated approach has been agreed for development within the catchments of waterbodies B and C involving developer contributions to fast-track the delivery of enforcement action within the waterbodies to ensure that the delivery of development will not undermine the achievement of the conservation objectives. A phased approach to the delivery of measures has been agreed.