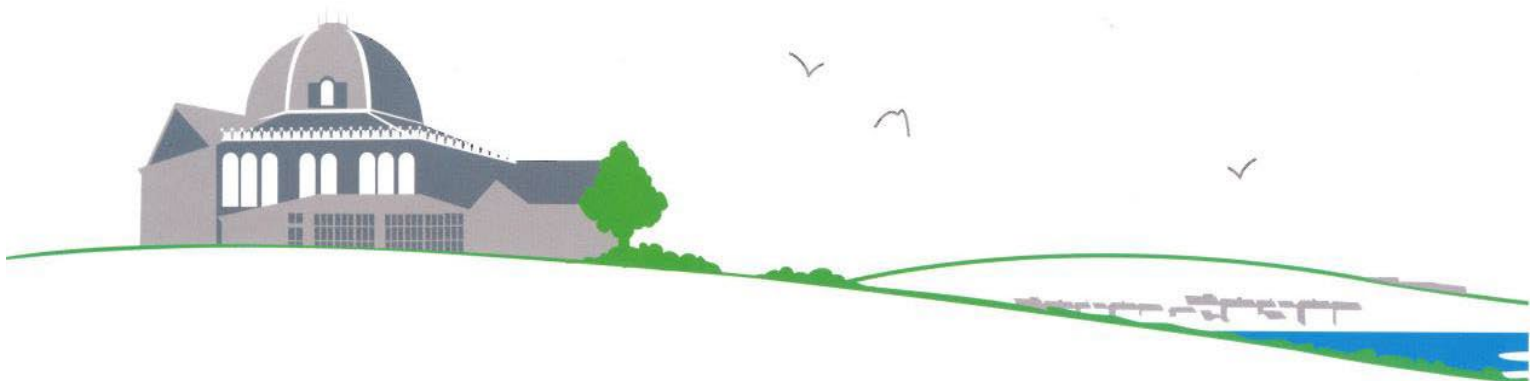




NICK BENNISON

LAND OFF CORBAR ROAD, BUXTON

HABITAT REGULATIONS ASSESSMENT
SCREENING



NICK BENNISON

LAND OFF CORBAR ROAD, BUXTON

HABITAT REGULATIONS ASSESSMENT SCREENING

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May 2026

This project has been undertaken in accordance with PAA policies and procedures on quality assurance.

Signed: 

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1. INTRODUCTION

Purpose of Report

- 1.1 Penny Anderson Associates Ltd (PAA) was commissioned by Nick Bennison to prepare a Habitat Regulations Assessment (HRA) Screening Assessment in relation to proposals for the erection of a single dwelling and conversion of the existing Coach House to residential use. The site is located on land off Corbar Road, Buxton SK17 6RU, central grid reference SK 05493 74188.
- 1.2 The site comprises an existing building, referred to as the 'Coach House', and a plot of land featuring other neutral grassland, a small parcel of woodland, a small parcel of bramble¹ (*Rubus fruticosus*) scrub, artificial unvegetated unsealed surface (track) and some small, temporary, storage containers.
- 1.3 The development comprises a proposed new dwelling house, private garden and associated access and parking provision. The existing building is to be retained and is proposed for change of use to a residential dwelling. The application site boundary covers 0.4985ha. The development will include proposed landscape screening and ecological enhancement.
- 1.4 The site is located 2.3km north-west, and within the catchment, of The Wye Valley Site of Scientific Interest (SSSI), which is part of the Peak District Dales Special Area of Conservation (SAC). The council has been notified that action must be taken to address exceedances of Phosphorus in the river and, as such, cannot grant consent for development unless it can rule out likely significant effects (LSE) on the SAC². As such, the site requires a HRA Screening Assessment as well as a Nutrient Neutrality (NN) Assessment to protect this designated site from the damaging effects of potential eutrophication. The NN Assessment (provided as Appendix 1) has been undertaken by PAA and should be read in conjunction with this HRA Screening Assessment.
- 1.5 The site is also located 1.6km east of the South Pennine Moors SAC.
- 1.6 The purpose of HRA Screening is to assess if the proposed works would have a LSE on these European Sites.
- 1.7 The requirement for a HRA is detailed in Regulation 63 of the Habitat Regulations which states:

'63.— (1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site,

must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.

¹ Plant species names follow Stace 2019

² <https://democracy.highpeak.gov.uk/documents/s26206/Water%20in%20Buxton%20SPD.pdf>

(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

(4) It must also, if it considers it appropriate, take the opinion of the general public, and if it does so, it must take such steps for that purpose as it considers appropriate.

(5) In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).'

- 1.8 Accordingly, this report has been prepared to assist the relevant competent authority, in this case High Peak Borough Council, in forming an opinion as to whether the project is likely to have a significant effect on the above-named European Sites.

Report Structure

- 1.9 This report presents the process, methods and results of the HRA Screening Assessment and is structured as follows:
- Section 1: Sets out the purpose and structure of the report;
 - Section 2: Describes the HRA process;
 - Section 3: Presents details of the relevant European Site(s), their qualifying features, proposed activities and consideration of LSE on the qualifying features of the European Site(s); and
 - Section 4: Conclusions - provides a concluding statement on whether LSE are expected and outlines the need (or otherwise) for an Appropriate Assessment (AA).

Reference Documents and Sources

- 1.10 The following documents and sources have been used in preparing this HRA Report:
- The Defra Multi-Agency Geographic Information for the Countryside (MAGIC) website to obtain details of relevant European Sites;
 - European Site Conservation Objectives for Peak District Dales Special Area of Conservation Site Code: UK0019859;
 - European Site Conservation Objectives for South Pennine Moors Special Area of Conservation Site code: UK0030280;
 - The Wye Valley SSSI citation³; and
 - High Peak Local Plan 2016⁴ (page 69).

³ <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/2000186.pdf>

⁴ https://www.highpeak.gov.uk/media/160/The-High-Peak-Local-Plan-Adopted-April-2016/pdf/cjThe_High_Peak_Local_Plan_Adopted_April_2016.pdf?m=1514473710280

2. HABITAT REGULATIONS ASSESSMENT PROCESS

The Habitat Regulations Assessment Process

- 2.1 Articles 6(3) and 6(4) of the Habitats Directive require an AA to be undertaken on proposed plans or projects which are not necessary for the management of the site, but which are likely to have a significant effect on one, or more, European Sites; either individually, or in combination with other plans and projects. As outlined in the Introduction, this requirement is enacted in the UK through the Habitat Regulations 2017 (as amended), paragraph 63.
- 2.2 The European Commission has developed guidance in relation to Articles 6(3) and 6(4) of the Habitats Directive, implemented in the UK by the Habitat Regulations, and this recommends a four-stage approach to addressing the requirements of these Articles, as illustrated in Figure 1. In brief, these stages are as follows.

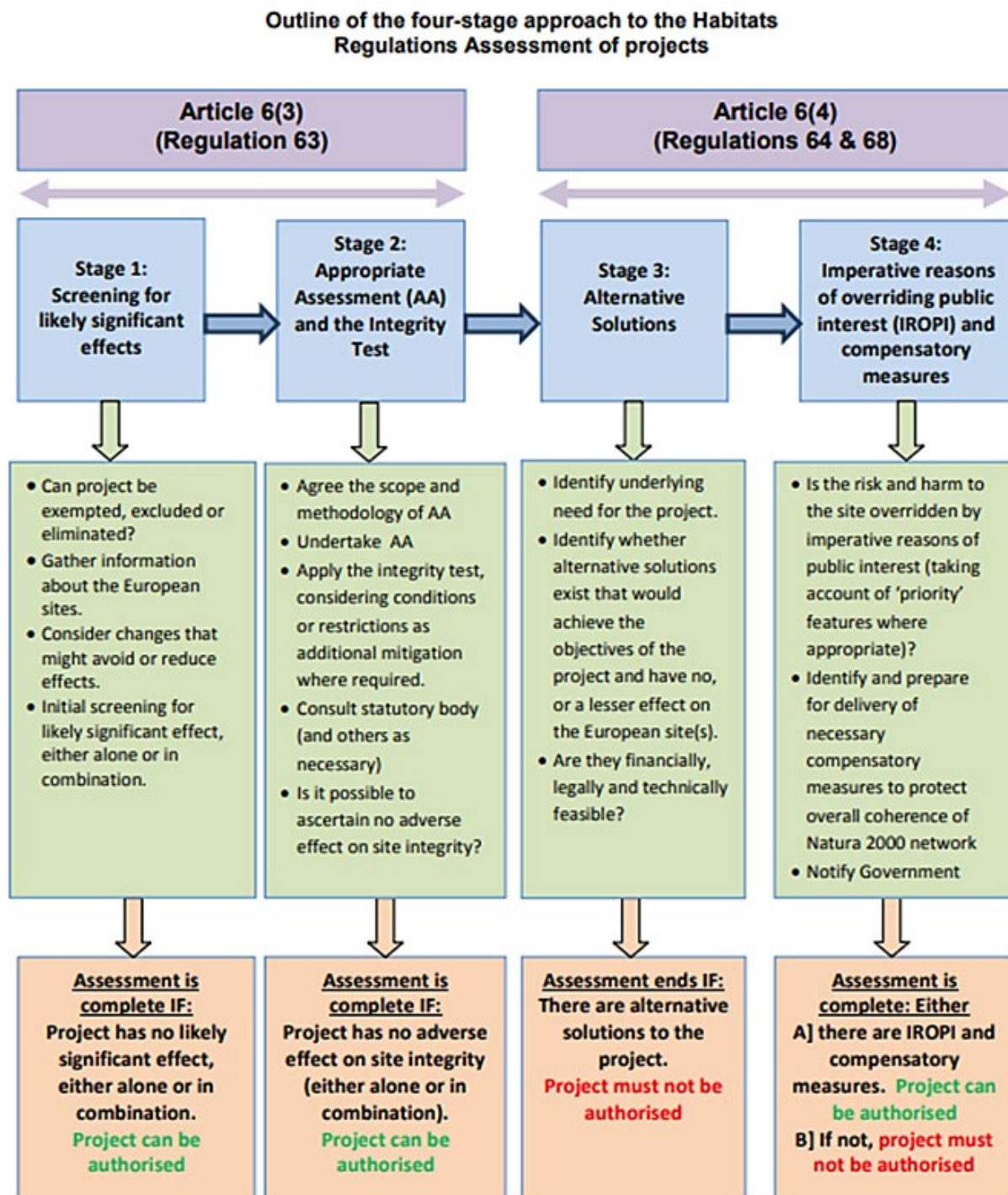
Stage 1 – Screening

- 2.3 This stage identifies the likely effects of a plan or project on any European Site, either alone or in combination with other plans or projects. Specifically, this stage considers whether these effects would have any LSE on the qualifying features of any European Site, either alone or in combination with other plans and projects. An AA is required if it is considered that any aspect of the plan or project will have a LSE on any European Site.

Stage 2 – Appropriate Assessment

- 2.4 If it is considered that a plan or project is likely to have a significant effect on the integrity of a European Site (or sites), the requirements of Stage 2 are triggered. This stage considers the impacts of the plan or project on the integrity of a European Site. The assessment should consider the implications for the European Site in view of the Site's conservation objectives. If adverse impacts are identified, this assessment should also consider measures to mitigate the identified impacts.
- 2.5 If necessary, modifications to the proposals are identified to avoid any adverse effects on site integrity. If mitigation is not possible and adverse effects on a European Site's integrity remain, the process must proceed to Stage 3.
- 2.6 In this case, as described in the remainder of this report, it is possible to conclude that there would be no adverse effects on the integrity of the relevant European Site(s) screened into the assessment and, therefore, Stage 3 is not triggered.

Figure 1 Summary of Habitat Regulations Assessment Process (from Tyldesley and Chapman, 2013 (2018 edition))



Extract from *The Habitats Regulations Assessment Handbook*; www.dtapublications.co.uk
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3. SCREENING ASSESSMENT

Identification of Relevant European Sites

- 3.1 The Defra MAGIC website was consulted in May 2026 to identify European Sites, including Special Protection Areas (SPA), SAC and Ramsar sites, which fall within 5km of the site.
- 3.2 The search distance of 5km is considered more than sufficient in this case, given the type of activity and localised nature of the proposed works.
- 3.3 There are two European Sites which fall within the 5km search area, and brief details of each European Site are presented in Table 1.
- 3.4 Within the conservation objectives for both SAC detailed below (and presented in Appendix 2), the overarching target/objectives in common for these sites are to ensure that the integrity of the Site is maintained or restored as appropriate, and ensure that the Site contributes to achieving the favourable conservation status of its qualifying features, by maintaining or restoring;
- The extent and distribution of qualifying natural habitats and habitats of qualifying species⁵;
 - The structure and function (including typical species) of qualifying natural habitats;
 - The structure and function of the habitats of qualifying species;
 - The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
 - The populations of qualifying species; and
 - The distribution of qualifying species within the site.

Table 1 Summary of European Sites Within 5km of Proposed Development

Name of Site	Distance	Summary of Qualifying Features	Notes
Peak District Dales SAC (including The Wye Valley SSSI, forming a component of the Peak District Dales SAC)	2.3km south-east of the proposed development site	H4030 European dry heaths H6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i> H6210 Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>) H7230 Alkaline fens H8120 Calcareous and calcshist screes of the montane to alpine levels H8210 Calcareous rocky slopes with chasmophytic vegetation H9180 <i>Tilio-Acerion</i> forests of slopes, screes and ravines S1092 White-clawed crayfish, <i>Austropotamobius pallipes</i> S1096 Brook lamprey, <i>Lampetra planeri</i> S1163 Bullhead, <i>Cottus gobio</i>	Whilst SSSI are not typically included within the scope of a HRA screening, the River Wye SSSI forms a component of the Peak District Dales SAC. As such, sites falling within the catchment of the River Wye SSSI must be considered for indirect impacts of development of the SSSI/SAC. Buxton falls within the catchment and impact risk zone of the River Wye SSSI. Therefore, developments within this catchment should work to minimise the phosphate load to the River Wye via discharges from the Buxton Sewage Treatment Works, through water efficiency (as detailed

⁵ References to species is applicable only to the Peak District Dales SAC

Name of Site	Distance	Summary of Qualifying Features	Notes
			in the High Peak Local Plan, 2016) and on-site mitigation.
South Pennine Moors SAC	1.6km west of the proposed development site	H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> H4030 European dry heaths H7130 Blanket bogs H7140 Transition mires and quaking bogs H91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	South Pennine Moors SAC has some limited connectivity with the development site through woodland and grassland. There isn't any obvious direct hydrological connectivity, which would be the most significant impact risk from the development. Due to the elevation of the SAC, indirect hydrological risks from the development (e.g. run off) are considered to be unlikely.

3.5 The site is within the catchment of The Wye Valley SSSI, which is part of the Peak District Dales SAC, and this is an area targeted to achieve NN to protect this designated site from the damaging effects of further potential eutrophication (in this case, increased Phosphorus is the target concern).

3.6 The issue of NN does not relate to the South Pennine SAC.

Consideration of In-Combination Effects

3.7 In combination effects are the combined and cumulative effects on a European protected site (e.g. SAC) from proposed plans or projects. Where a single development may have no significant effect alone, the combined effect of multiple similar developments occurring with the same location may lead to a LSE on the protected site(s).

3.8 The High Peak Borough Council's planning portal was consulted in May 2026 to search for approved and pending planning applications made within the past 12-months within 1km of the site with potential for in-combination effects.

3.9 Applications considered to have low significance have been omitted from the assessment for combination effects. This includes applications relating to the modification of existing dwellings (e.g. extensions) or minor alternations and renovations.

3.10 Applications where the number of dwellings on a site will increase, even by small numbers, have been included in the assessment, as this mirrors the development plans under consideration in this screening and, cumulatively, could leave to a significant increase in nutrients in wastewater.

3.11 A search of the High Peak Borough Council planning portal⁶ for approved and pending planning applications in a 1km search area within the last 12 months identified nine applications which have the potential to act in-combination with the proposed development:

- HPK/2025/0334 – Northwood House, Corbar Road, Buxton, Derbyshire, SK17 6RQ. Demolition of existing buildings, erection of residential dwelling, parking, works of hard and soft landscaping and other works incidental to the application proposals;
- HPK/2023/0328 - Portland Nursing Home 8 Park Road Buxton SK17 6SG. Change of use from Nursing Home (use class C2) to 13 one and two bed apartments (use class C3);

⁶ <http://publicaccess.highpeak.gov.uk/portal/> (last accessed 20/05/2026)

- HPK/2023/0023 - 23 The Willows Day Nursery Park Road Buxton SK17 6SG. Change of use and conversion of former Private Day Nursery to Apartments;
- HPK/2026/0096 - Chatsworth Lodge Carlisle Road Buxton SK17 6XX. Reconfiguration and modernisation of the existing 28 flats into 19 new modern larger flats;
- HPK/2024/0496 - Land Off Brown Edge Close Buxton. Construction of five single-storey dwellings and associated works;
- HPK/2023/0192 - Land at Hoghaw, Fairfield, Buxton, Derbyshire. Construction of 116 dwellings;
- HPK/2025/0486 - High Peak Halls, Bridge Street, Buxton SK17 6BB. Partial demolition and conversion of existing purpose-built student accommodation to create a 70-bedroom Travelodge hotel (Use Class C1);
- HPK/2021/0731 - Marks and Spencer Plc, 47-51 Spring Gardens Buxton SK17 6BJ. Change of use of a portion of the ground floor, first and second floors of the former Marks and Spencer store forming a new hotel with reception, ancillary areas and vertical circulation and fire exits at ground floor with accommodation, ancillary areas; and
- DET/2017/0019 - Former Otter Controls Building, Hardwick Square South, Buxton. Conversion of B1 (c) light industrial building to four dwellings.

Consideration of Likely Significant Effects

Alone

- 3.12 A NN Assessment was conducted by PAA. The focus of concern in regard to NN within this catchment is potential additional Phosphorus inputs derived from the development proposal. The results of the NN calculation confirmed a **decrease of 0.06kg/year total Phosphorus** loading to the local sewerage system (see Appendix 1). The scheme does not add any additional Phosphorus loading to the sewer system and results in a small reduction in total Phosphorus inputs and achieves NN.
- 3.13 When considered alone, therefore, this development is assessed to have **no LSE** on the Peak District Dales SAC (via the River Wye SSSI) in terms of increased nutrient inputs to water.
- 3.14 The small-scale and localised nature of the works means that other potential impact pathways, such as noise, air quality (e.g. dust), visual/lighting, and recreational pressure and activity, are all considered to have **no LSE** on either the Peak District Dales SAC or the South Pennine Moors SAC.

In-combination

- 3.15 Where the development is considered alongside other developments, the potential for impacts does, naturally, increase. However, the generally small-scale nature of the majority of the developments located within Buxton town centre are considered to be a sufficient distance from both SAC sites to have **no LSE** in terms of noise, air quality (e.g. dust), visual/lighting, and recreational pressure and activity.
- 3.16 A number of the planning applications reviewed involved change of use in some capacity and, therefore, it is considered that the impacts from these developments are unlikely to exceed the threshold of previously existing buildings/building use.
- 3.17 In terms of potential impacts on water quality in relation specifically to the Peak District Dales SAC, all proposed and recent developments within Buxton will be evaluated against the need for a NN assessment, therefore, any potential threats from increased Phosphorus in the River Wye

catchment as a result of increased requirements for wastewater treatment will be appropriately mitigated against at the planning stage. Consents will not be given where NN cannot be achieved and, as such, no cumulative impacts from increased Phosphorus are anticipated.

Conclusion

- 3.18 Is it considered that both alone and in-combination, the proposed development including the erection of a single dwelling and conversion of the existing Coach House to residential use, will have **no LSE** on either the Peak District Dales SAC or the South Pennine Moors SAC.

4. CONCLUSIONS

- 4.1 The development will retain existing woodland habitats that contribute to the management of Phosphorus generation from a site and includes areas of native shrub and tree planting within the proposed landscape design that will further contribute to positive nutrient management. Overall, the development will provide a small net **reduction** in Phosphorus inputs to the catchment of the Wye Valley SSSI (part of the Peak District Dales SAC) and achieves overall NN using the Peak District Dales NN Calculator.
- 4.2 The scale and nature of the scheme (a small site <0.5ha with a single proposed new dwelling plus a change of use of an existing dwelling) results in no predicted effects on either the Peak District Dales SAC or the South Pennine SAC in relation to potential impacts in relation to noise, air quality (e.g. dust), visual/lighting and recreational pressure and activity.
- 4.3 Accordingly, it is concluded that the proposed development will have no LSE on the Peak District Dales SAC or the South Pennine SAC, and the development can be 'screened out' from requiring a detailed AA.

5. REFERENCES

Stace, C., 2019. *New Flora of the British Isles. Fourth Edition*. C & M Floristics.

Tyldesley, D., and Chapman, C., 2013. *The Habitats Regulations Assessment Handbook (2018 edition)*. DTA Publications Ltd.

6. ABBREVIATIONS

AA	Appropriate Assessment
HRA	Habitats Regulations Assessment
LSE	Likely Significant Effect(s)
MAGIC	Multi Agency Geographic Information for the Countryside
NN	Nutrient Neutrality
PAA	Penny Anderson Associates Ltd
SAC	Special Area(s) of Conservation
SPA	Special Protection Area(s)
SSSI	Site(s) of Special Scientific Interest

APPENDICES

APPENDIX 1

Nutrient Neutrality Assessment



20th May 2026

Our Ref: 260257

Nick Bennison
Cobar Hill House
Corbar Road
Buxton
SK17 6RU

Email: njbennison@hotmail.com

Dear Nick

LAND OFF CORBAR ROAD, BUXTON - NUTRIENT NEUTRALITY ASSESSMENT

Penny Anderson Associates Ltd (PAA) was commissioned to complete the Nutrient Neutrality Budget Calculator in relation to proposals for the erection of a single dwelling and conversion of the existing Coach House to residential use. The site is located on land off Corbar Road, Buxton, SK17 6RU, central grid reference SK 05493 74188.

Background

The proposed development comprises a dwelling house, private garden and associated access and parking provision. The application site boundary covers 0.4985ha.

The site is within the catchment of The Wye Valley Site of Scientific Interest (SSSI), which is part of the Peak District Dales Special Area of Conservation (SAC), an area targeted to achieve Nutrient Neutrality (NN) to protect this designated site from the damaging effects of further potential eutrophication.

The focus of NN assessment is in relation to development proposals that involve additional overnight accommodation (which this proposed scheme does), however, any proposed development within these SAC catchments that might have non-sewerage water quality implications also requires NN assessment.

Approach to Nutrient Neutrality Assessment

The NN Calculator for the Peak District Dales SAC site was completed in consultation with the applicant and the wider consultancy team. The completed Calculator is enclosed with this letter (Appendix 1). The focus of concern in regard to NN within this catchment is additional Phosphorus inputs derived from the development proposal¹.

The Calculator requires certain information about the proposals to be input into the spreadsheet. Those data (collated on 5th May 2026) comprised:

- Date of first occupancy – unknown but estimated as 1st October 2026 for the Coach House at least;
- Development proposal – two dwellings (the new residential property and the converted Coach House);
- Waste water treatment works - Buxton WwTW selected;
- Soil drainage type – ‘impeded drainage’ soil type was selected, reflecting the Land Information System (LandIS) Soilsclapes 19 (described as slowly permeable wet very acid upland soils with a peaty surface) soil classification for the location²;
- Average rainfall – ‘1,200.1 – 1,400’ mm/year was selected based on the Met Office location specific long-term average rainfall dataset for Buxton Station, period 1991 to 2020, the yearly total reported being 1,343.91 mm³;

¹ <https://www.highpeak.gov.uk/article/7656/Nutrient-Neutrality>

² <https://www.landis.org.uk/soilsclapes/>

³ <https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages/gcqwurdr>



- Nitrate Vulnerable Zone (NVZ) – the site is not within a designated NVZ as reviewed on the Multi Agency Geographic Information for the Countryside (MAGIC) dataset⁴;
- Current land use type – Residential Urban Land was selected as the best fit for the majority of the site, which is described as areas of houses and associated infrastructure inclusive of roads, driveways, grass verges and gardens⁵. The area of woodland to the north-west of the site was included as Woodland category;
- New land use type - Residential Urban Land is selected as the best fit for the majority of site, post development. Areas of proposed native shrub planting and scattered native tree planting is included as Shrub. The woodland area is to be retained and included as Woodland; and
- SUDS – no sustainable urban drainage system (SUDS) features are proposed.

All other data used were unchanged from the pre-entered data within the Calculator, as downloaded from the High Peak Borough Council NN web page⁶.

Calculator Results

For the proposed development, and using the above assumptions and datasets, the Nutrient Neutrality Budget Calculator identifies an decrease of -0.06kg/year total Phosphorus loading to the sewerage system. The scheme does not, therefore, add any additional Phosphorus loading to the sewer system and results in a small reduction in total Phosphorus inputs.

Please note, prior to discharge to mains sewer, all effluent will be sent to an on-site wastewater treatment system (Tricel 'Novo' system – see Appendix 2 for technical information) to assist with nutrient management from the scheme.

Summary

Following completion of the Peak District Dales SAC Nutrient Neutrality Calculator for the proposed development, the total annual Phosphorus (P) load to mitigate is calculated as 0.00 kg total Phosphorus per year.

The proposed scheme, therefore, achieves nutrient neutrality.

I hope the letter is clear and meets with your requirements. Please do not hesitate to contact me if you have any questions or require further information.

Yours sincerely
For and on Behalf of
PENNY ANDERSON ASSOCIATES LTD



Sarah Ross
Associate Director

sarah.ross@pennyanderson.com

Encls. Appendix 1 Completed Peak District Dales SAC Nutrient Neutrality Budget Calculator
Appendix 2 Tricel 'Novo' wastewater treatment system – technical information

⁴ <https://magic.defra.gov.uk/>

⁵ <https://www.gov.uk/guidance/using-the-nutrient-neutrality-calculators#worksheet-2-nutrients-from-current-land-use-1>

⁶ <https://www.highpeak.gov.uk/article/7656/Nutrient-Neutrality>

Natural England Nutrient Neutrality budget calculator for the Peak District Dales SAC	
This calculator was created by Ricardo Energy and Environment.	
This calculator contains 6 worksheets with 9 tables in total.	
This is the instructions cover sheet. It tells you how to use the calculator and gives an overview of each worksheet.	
You can move between worksheets using the tabs at the bottom of the page.	
If you use screen reading software, you can use 'Ctrl' + 'Page Down' keys to move between the tabs.	
If you use a keyboard only, to open any link in this form first select the cell with the link and then press the 'Shift' + 'F10' keys or the 'Fn' + the 'Menu' keys, then press the letter 'O' twice to highlight 'Open Hyperlink' and press 'Enter'.	
If you use a keyboard only, access dropdown lists by clicking the dropdown arrow or pressing the 'Alt' + 'Down' keys when the cell is selected.	
Table of contents	
Topic of each table	Link to each worksheet
Worksheet 1 Nutrient loading from additional wastewater	Nutrients from wastewater
Worksheet 2 Nutrient loading from current land use	Nutrients from current land use
Worksheet 3 Nutrient loading from future land use	Nutrients from future land use
Worksheet 4 Nutrient loading from future land use after treatment through a sustainable urban drainage system (SuDS)	SuDS
Worksheet 5 Nutrient budget calculations	Final nutrient budgets
General information about the calculator	
This calculator helps you calculate the nutrient budget for a new residential development.	
The nutrient budget for a site is calculated in 4 key stages with an additional optional stage in which information about the SuDS features on the site can be entered. Each stage is implemented in worksheets 1-5 of this calculator.	
Each worksheet is connected through a set of formulas which calculate the nutrient budget. As such, all sheets which represent the four key stages require data inputs in order to calculate the nutrient budget.	
The total nutrient budget is calculated automatically by adding the values from the 'Nutrients_from_wastewater' and the outputs from the 'Nutrients_from_future_land_use' minus the 'SuDS' (if applicable), and then subtracting the values from the 'Nutrients_from_current_land_use', then adding a 20% precautionary buffer to the result. This calculation is completed in the 'Final_nutrient_budgets' worksheet.	
Before a nutrient budget can be completed using the methodology, certain site-specific details for the development site need to be determined.	
The guidance to this calculator and gives further information on the user inputs required.	
The instructions for completing each stage of the nutrient budget methodology are shown in cell A2 of each worksheet.	
This calculator uses a set of lookup tables to find relevant values in a hidden spreadsheet titled the 'Value_look_up_tables' worksheet.	
It is advisable to retain a blank copy of this calculator and 'Save as' a new copy each time you calculate a budget to minimise the risk of using incorrect data inputs and to ease the calculation of new nutrient budgets.	
The values already included have been chosen based on research to determine suitable inputs to the nutrient budget that meet the Habitat Regulations Assessment (HRA) tests of beyond reasonable scientific doubt, in perpetuity (practically speaking this is 80 to 125 years) and in accordance with the precautionary principle.	
If editing any values in this calculator, you must make sure there is a sufficient evidence base to justify these changes and that the new inputs are selected in accordance with the precautionary principle.	
Notes about the nutrients from wastewater worksheet	
This sheet contains 2 tables.	
The table under the heading 'Water infrastructure information' allows the user to enter key information about the wastewater generated and water infrastructure on the site. This table contains a mix of user specified values and values that are calculated automatically depending on the user selected inputs.	
The date of first occupancy is required because some wastewater treatment works (WwTW) may be due an upgrade in 2025 or 2030 which will change the nutrient concentration permit values. This will be shown through 2 or 3 values for the permits and nutrients load from before and after the upgrade.	
The amount of wastewater generated as a result of the population needs to be calculated using the following: - an average occupancy rate - a per capita water usage figure - the number of new developments The default water usage value is preset in the worksheet. The default setting for the average occupancy rate is preset in the worksheet and is the national occupancy rate of 2.4 people per dwelling or unit. Only change this value if there is sufficient evidence that the development will be different to the national average. The number of new developments is not preset and must be a whole number. If it is uncertain what WwTW the development will drain into, find this information from your sewerage company before completing the calculator. If it is not feasible to connect to a WwTW and a septic tank or package treatment plant is being used, select this option. If the total phosphorus (TP) final effluent concentrations (in mg/l) are specified by the manufacturer, select 'Septic Tank user defined' or 'Package Treatment Plant user defined' and enter the manufacturer specified value in the cell where prompted. The table under the heading 'Final calculation of nutrient load from wastewater' contains the calculation of the nutrient load from additional wastewater. This table may present up to 3 different values for the nutrient load.	

If a nutrient permit is changing for the selected WwTW as of 01/01/2025, or 01/04/2030, the table will be broken down into up to 3 parts:

- post-2030 wastewater nutrient loading
- pre-2030 wastewater nutrient loading
- pre-2025 wastewater nutrient loading

If applicable, 3 nutrient budgets will be calculated for the loading before and after the 2030 and 2025 WwTW permit upgrades, and will be presented in cells B18, B20 or B22.

Notes about the nutrients from current land use worksheet

This worksheet contains two tables that are used for calculating the annual nutrient load from existing (pre development) land use on the development site. Environmental information about the current site is required for the first table. The second table requires the user to input the existing type(s) and area(s) of landcover present in order to generate nutrient loads associated with the current landcovers on the site. Only landcovers for the land that is being altered by the development should be entered.

The dropdown list of landcover types contains up to 8 agricultural landcover types and 8 different non-agricultural landcover types. The full list of landcovers can be found in the calculator guidance (link incoming) or in the dropdown list. Find out what landcover types are within the development before completing this table. If there is a landcover within the development area that is not in the list select the most similar landcover type.

The calculator guidance gives further information about the landcover types used.

Sources of information required for nutrients from current land use worksheet

Description of the information:

The operational catchment within which the development is located can be found using the Environment Agency Catchment Data Explorer

The drainage associated with the predominant soil type within the development site can be found using the Soilscales Map

The annual average rainfall that the development will receive can be found using the National River Flow Archive for the '28023-Wye at Ashford' station

Whether the development is located within a nitrate vulnerable zone (NVZ) can be found using the UK Soil Observatory 'Nitrate Vulnerable Zones - England' map

Notes about the nutrients from future land use worksheet

This worksheet contains one table which is used to calculate the annual nutrient load from new (post-development) land use on the development site. The type(s) and area(s) of landcover present on the new development is required to generate nutrient loads associated with the current landcovers on the site.

The type(s) of landcover present on the new development site can be selected from a list of 8 different landcover types:

- greenspace
- woodland
- shrub
- water
- residential urban land
- commercial or industrial urban land
- open urban land
- community food growing

Find out what landcover types will be within the development site before completing this table. If there is a landcover within the development site that is not in the list select the most similar landcover type.

The calculator guidance gives further information about the landcover types used in this calculator.

Notes about the SuDS worksheet

This worksheet contains one table in which the user can enter key information about the use of SuDS to treat the runoff from the site and reduce the nutrient loading from future land uses.

The table allows the user to enter the SuDS features or SuDS management trains that are proposed to treat the nutrient loading from future land uses. The land covers within the SuDS catchment area and the areas of these landcovers can be entered. Only landcovers entered into the 'Nutrients from future land use' worksheet can be selected. The nutrient loads associated with these landcovers are automatically calculated using the values from the worksheet 'Nutrients from future land use'.

The user must enter the percentage of flow that will be directed through the SuDS. Any numerical value less than or equal to 100% can be entered for the percentage of flow.

Any numerical value less than or equal to 100% can be entered for the removal rates. However, the user will be required to present all evidence of these removal rates to the competent authority. As such, the most up to date SuDS guidance on SuDS for nutrient removal should be followed.

The user can enter any text for the SuDS feature to allow for variability in the names of the SuDS features or management trains

Notes about the final nutrient budgets

This final stage automatically calculates the results from worksheets 1-5.

The value(s) shown represent the nutrient mitigation required in kilograms per year to achieve nutrient neutrality.

If there are 2 or 3 values due to changing permits, the calculator will show the total amount of nutrient mitigation that is needed before and after the changing permit date.

Nutrients from wastewater		
This sheet contains 2 tables. The tables are separated by a heading, which describes the following table. Note: You will need to fill in cells B5 to B9 in the first table 'Water infrastructure information'. Cells B10 is automatically calculated and will state '0.00' unless the user inputs have been entered. Cells A11 to A12 and B11 to B12 are automatically generated and will state 'Not applicable' depending on the inputs to cells B5 and B9. You may need to fill in cell C10 depending on the information you entered in cell B9. Cells C5 to C9 and cells C11 to C12 are intentionally blank cells. You do not need to fill in any cells in the second table 'Final calculation of nutrient load from wastewater'. Cells B16 to B18 are automatically calculated and will state '0.00' unless the user inputs have been entered to the first table 'Water infrastructure information'. Cells A19 to A22, cells B20 and B22 are automatically generated and will state 'Not applicable' depending on the user inputs to the first table 'Water infrastructure information'. Cell B15, cell B19 and cell B21 are intentionally blank cells. How to fill in the table 'Water infrastructure information' Cell B5: Enter the date of first occupancy. Cell B6: Enter the average occupancy rate of the development. The default rate is 2.4, this should not be edited without sufficient evidence. Cell B7: Enter the water usage. This value should be kept at 120 unless other efficiency measures are used. Cell B8: Enter the total number of dwellings or units that will be within the development site as of the project completion date. Cell B9: Choose the receiving wastewater treatment works (WwTW) from the dropdown list. If you select 'Package Treatment Plant user defined' or 'Septic Tank user defined', you must enter their certified value of total phosphorus (TP) in cell C10. Otherwise the default values will be used in the calculation of the nutrient load associated with wastewater. Nutrient permits may be changing for the WwTW you select, from 01/01/2025, or 01/04/2030. If the date of first occupancy is in-between changing permit dates, multiple permit limits may be automatically generated in cells B10 to B12. If applicable, up to 3 values for the nutrient loading associated with wastewater will be presented in cell B18, B20 or B22.		
Water infrastructure information		
Description of required information	Data entry column - user inputs required	Additional data entry column - user inputs may be required
Date of first occupancy (dd/mm/yyyy):	01/10/2026	
Average occupancy rate (people/dwelling or people/unit):	2.40	
Water usage (litres/person/day):	120	
Development proposal (dwellings/units):	2	
Wastewater treatment works:	Buxton WwTW	
Current wastewater treatment works P permit (mg TP/litre):	0.20	
Not applicable	Not applicable	
Not applicable	Not applicable	
Final calculation of nutrient load from wastewater		
Description of values generated	Values generated	
Wastewater nutrient loading		
Additional population (people):	4.80	
Wastewater by development (litres/day):	576.00	
Annual wastewater TP load (kg TP/yr):	0.04	
Not applicable		
Not applicable	Not applicable	
Not applicable		
Not applicable	Not applicable	

Nutrients from current land use

This sheet contains 2 tables. The tables are separated by a heading, which describes the following table.

Note: You will need to fill in cells B5 to B8 in the first table 'Current land use information'. You will need to fill in cells A11 to A27, and B11 to B27 in the second table 'Current land uses'.

Cells B28, C11 to C28 are automatically calculated and will state '0.00' unless the user inputs have been entered. Cells D11 to D27 are automatically generated and will state 'Not applicable' depending on automatically generated data in cells C11 to C27. Row 28 is a Total Row. The Total Row states 'Totals': in cell A28 and automatically calculates the total sum of cells B11 to B27 in cell B28 and C11 to C27 in cell C28. Cell D28 is intentionally blank.

How to fill in the table 'Current land use information'

Cell B5: Choose the operational catchment the site is located within from the dropdown list.

Cell B6: Choose the soil drainage type associated with the predominant soil type within the development site from the dropdown list.

Cell B7: Choose the annual average rainfall the development will receive from the dropdown list. If the rainfall volume is not on the list, select the nearest value.

Cell B8: Choose whether the development is in a nitrate vulnerable zone (NVZ) from the dropdown list.

How to fill in the table 'Current land uses'

Cell A11-A27: Choose the existing (pre-development) land use type(s) from the dropdown list.

Cells B11-B27: Enter the area in hectares of each land use type.

The nutrient load from current land uses is shown in cells C11-C27 for total phosphorus (TP).

The total nutrient load from current land uses is shown in cell C28 for TP.

Current land use information

Description of required information	Data entry column - user inputs required
Operational catchment:	Derwent Upper Derbyshire
Soil drainage type:	Impeded drainage
Annual average rainfall (mm):	1,200.1 - 1,400
Within nitrate vulnerable zone (NVZ):	No

Current land uses

[illegible]

		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
Totals:	0.50	1.26	

Nutrients from future land use

This sheet contains one table.

Note: You will need to fill in cells A5 to A21 and B5 to B21. Cells B22 and C5 to C22 are automatically generated calculations and will state '0.00' unless the user inputs have been entered. Row 22 is a Total Row. The Total Row states 'Totals:' in cell A22 and automatically calculates the total sum of cells B5 to B21 in cell B22 and C5 to C21 in cell C22.

How to fill in the table 'Future land uses'

Cells A5-A21: Choose the future (post-development) land use type(s) of landcover present on the new site from the dropdown list

Cells B5-B21: Enter the area in hectares of each land use type.

The nutrient load from future land uses is shown in cells C5 to C21 for total phosphorus (TP).

The total nutrient load from future land uses is shown in cell C22 for TP.

Future land uses

New land use type(s) - user inputs required	Area (ha) - user inputs required	Annual phosphorus export (kg TP/yr)
Residential urban land	0.44	1.16
Shrub	0.04	0.00
Woodland	0.02	0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
Totals:	0.50	1.16

Nutrients from future land use after sustainable urban drainage system (SuDS) treatment

This sheet contains input table.

Note: You will need to fill in cells A5 to A29, cells B5 to B29, cells C5 to C29, cells E5 to E29 and cells F5 to F29 if you are including SuDS to remove nutrients from the surface runoff. Cells B30, D5 to D30 and cells G5 to G30 are automatically calculated and will state '0.00' unless the user inputs have been entered. Cells H5 to H29 are automatically generated and will state 'Not applicable' unless the total area of the catchment entered is larger than the total area of the landscaper entered into the worksheet 'Nutrients, from_fUTURE_land_use'. Row 30 is a Total Row. The Total Row states 'Totals' in cell A30, and automatically calculates the total sum of cells B5 to B29 in cell B30, cells D5 to D29 in cell D30 and cells G5 to G29 in cell G30. Cell C30, cell E30, cell F30 and cell H30 are intentionally blank.

How to fill in the table 'SuDS information'

Cells A5 to A29: Choose the future (post-development) land use type(s) of landscape present on the new site within the SuDS catchment area from the dropdown list. Only landowners entered into the worksheet titled 'Nutrients, from_fUTURE_land_use' can be entered.

Cells B5 to B29: Enter the area of each new land use type within the SuDS catchment area.

Cells C5 to C29: Enter the percentage of the flow entering the SuDS feature. If all flows in being diverted to the SuDS feature then this value should be set to 100%.

The annual total phosphorus (TP) loads associated with the landowners in the SuDS catchment area are automatically calculated in cells D5 to D29.

Cells E5 to E29: Enter the name of the SuDS features used to intercept surface flows can be entered in. Any text can be entered into these cells.

Cells F5 to F29: Enter the nutrient removal rates associated with the SuDS features for TP.

Values for column F must be identified by the user and must be specific to the SuDS features being implemented.

The annual TP load removed in the SuDS features are automatically calculated in cells G5 to G29. These values are subtracted from the nutrient budget.

Cells do not need to be filled in column H 'Notes on data'. It will state 'Not applicable' unless the total area of each landcover within the SuDS catchment area exceeds the area of the landowners entered into the worksheet titled 'Nutrients, from_fUTURE_land_use'.

The total nutrient load removed through the SuDS features is shown in cell G30 for TP.

SuDS information

New land use type(s) within SuDS catchment area - user inputs required	SuDS catchment area (ha) - user inputs required	Percentage of flow entering the SuDS (%) - user inputs required	Annual phosphorus inputs to SuDS feature(s) (kg T/yr)	Name of SuDS feature(s) - user inputs required	TP removal rate for features - user specified (%) - user inputs required	Annual phosphorus load removed by SuDS (kg TP/yr)	Notes on data
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
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			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
			0.00			0.00	Not applicable
Totals:	0.00		0.00			0.00	

Final nutrient budgets

This worksheet contains one table. This table is automatically populated using the outputs from the previous worksheets.

Note: You do not need to fill in any cells in the table.
Cells B5 to B8 and cells B10 are automatically calculated and will state '0.00' unless the user inputs have been entered to all of the required worksheets.
Cells A11 to A14, cell B12 and cell B14 are automatically generated and will state 'Not applicable' depending on the user inputs to the worksheet 'Nutrients_from_wastewater'.
Cell B9, B11 and B13 are intentionally blank.

This table presents calculations that underpin the final annual nutrient budget for the development site. Up to 3 values for the nutrient budget may be presented in cells B10, B12 and B24 for total phosphorus (TP).

Total nutrient budget calculations

Description of values generated	Values generated
Wastewater TP load (kg TP/year):	0.04
Net land use TP change (kg TP/year):	-0.10
TP budget:	-0.06
TP budget + 20% buffer:	-0.06
Annual nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	0.00
Not applicable	
Not applicable	Not applicable
Not applicable	
Not applicable	Not applicable

WASTEWATER TREATMENT

Tricel® Novo

For Single Dwellings & Small Communities

Innovative design for superior performance

UK*

* EXCLUDING NORTHERN IRELAND



What is the Tricel Novo

Tricel Novo wastewater treatment plants are reliable, easy to install and simple to maintain for all wastewater requirements. These highly functional plants can cater for ranges from 1 to 50 PE (Population Equivalent).

The Tricel Novo submerged aeration plant is suitable for domestic and light commercial or communal applications and uses simple proven fixed bed technology. Each system comprises of three independent treatment zones, all fulfilling a different stage of the purification process.

The Tricel Novo treatment efficiencies are as follows:

BOD ₅	11 mg/l
SS	16 mg/l
NH4-N	8mg/l

European Certification Requirements

All Tricel wastewater treatment plants have been tested to European certification EN 12566-3. This certification tests all plants for strength, water tightness, durability and treatment efficiency.

By using a wastewater treatment plant which is CE certified clients can rest assured that it has complied with tests and inspections which guarantee a high level of security and efficiency.

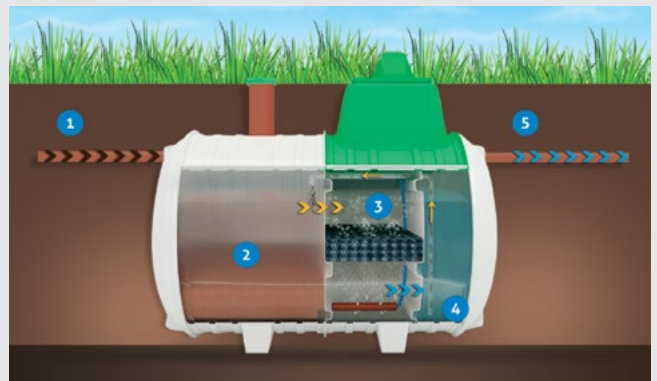
How a Tricel Novo works

These plants use a simple, proven technology, consisting of three treatment zones. In each zone a different stage of the treatment occurs.

1. Wastewater from the dwelling, toilets, sinks, shower etc., enters the plant.
2. Effluent enters the primary settlement chamber. Settlement occurs when the heavier solids drop out of the wastewater and settle to the bottom of the tank to create sludge, and the lighter solids float to the top of the water to create a scum. The top layer acts as a seal and stops odours escaping. This chamber separates up to 70% of the solids present.
3. Next is the aeration chamber, where masses of naturally occurring bacteria inhabit specially designed plastic filter media. The bacteria feed on the waste removing it from the liquid. A continuous supply of air from a low pressure, high volume compressor in the top section of the unit sustains these bacteria. Wastewater passes through the filter media over and over, ensuring a very high treatment efficiency.
4. The liquid then proceeds to the final settlement chamber. Any remaining minute bacterial particles separate from the liquid within this chamber before discharge from the plant. This process slows the liquid's velocity,

allowing for any final trace impurities to settle to the bottom of the tank section. A sludge return system then returns these impurities back to the primary settlement chamber.

5. The remaining treated liquid now meets the required standard and is safely passed out of the Tricel Novo plant system. This treated effluent is now ready for discharge to a suitably designed discharge area as required by the relevant local authority.



Tricel Novo wastewater treatment plant has an overall efficiency of 95.9% BOD removal

Key features & benefits

- **Compression moulded SMC tank.** The compression moulding process is one of the most technologically developed processes available to manufacture structural composites. Components are manufactured under heat and high pressure and have unrivalled strength and durability over standard tanks or polyethylene tanks.
- SMC is unique in the wastewater treatment industry with Tricel SMC tanks operating in some of the harshest climatic conditions for over 50 years with no defects.
- Tricel's **ceramic diffuser** is unique in the domestic wastewater treatment plant market and will last twice as long as all standard competitors rubber equivalents. This saves money in both call out fees and replacement parts.
- **No concrete backfill** for installation on most sites saving up to £300 over lower quality GRP or polyethylene alternatives from competitors.
- Complies with Environment Agency general binding rules in England, Natural Resources Wales exemption criteria and SEPA requirements. Tricel advise consulting with your local agency on the level of effluent treatment required.
- No moving parts or pumps in the plant ensuring reliable operation and minimal maintenance and repair costs.
- **Factory fitted alarm** on selected PE's.
- Integrated pumped outlet available on all PE's.

Call us today for a **Free Quote** or details of your local partner

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environment@tricel.co.uk

Homeowners: individual domestic installation



- ▶ The lightweight nature of the system makes for easy on-site delivery.



- ▶ No need for big excavators and large holes that disrupt and disturb your garden.



- ▶ Very low visual impact from fully installed units.

Larger projects: commercial installations up to 50 PE



- ▶ These plants are suitable for installation at housing estates, camping sites, hotels etc., and have low maintenance and running costs.



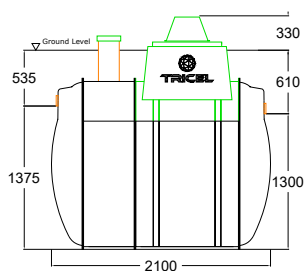
- ▶ Each wastewater treatment plant is constructed of lightweight SMC and is easy to manoeuvre which simplifies the installation process.



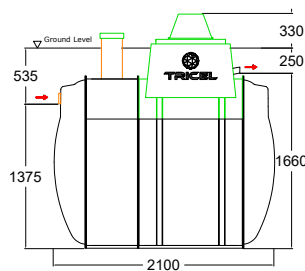
- ▶ Example of a fully installed 50 PE Novo wastewater treatment plant in a 5-star hotel.

Technical characteristics/ Plant dimensions

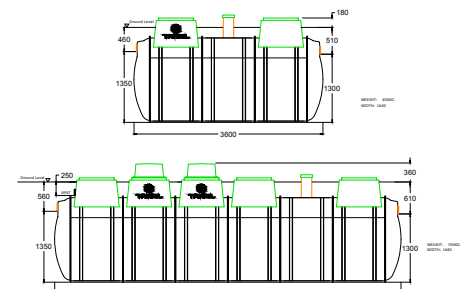
Novo Design population		No. of people	Total capacity	Length	Width	Height	Nominal inlet/ outlet diameter	Weight empty	Inlet invert to base	Outlet invert to base	Inlet invert to ground level	Air blower rating (Mean)
			ltr	m			mm	kg	m			watts
UK6 & 6SR (3000L)		1-6	3000	2.1	1.64	2.24	110	270	1.375	1.3	0.535	50
UK8 & 8SR		2-8	4000	2.6	1.64	2.24	110	300	1.375	1.3	0.535	70
UK10		3-10	4731	3.1	1.64	2.24	110	370	1.375	1.3	0.535	86
UK12		4-12	5546	3.6	1.64	2.27	110	400	1.375	1.3	0.535	100
UK18		6-18	7176	4.6	1.64	2.27	110	500	1.375	1.3	0.535	215
UK24		8-24	8806	5.6	1.64	2.27	110	600	1.375	1.3	0.535	215
UK30		10-30	10376	6.6	1.64	2.27	150	700	1.35	1.3	0.56	215
UK36	Tank A	12-36	12410	2.6	1.64	1.99	150	300	1.35	1.3	0.46	215 + 86
	Tank B			5.6	1.64	2.27	150	600	1.35	1.3	0.56	
UK42	Tank A	14-42	14350	3.6	1.64	1.99	150	400	1.35	1.3	0.46	215 x 2
	Tank B			5.6	1.64	2.27	150	600	1.35	1.3	0.56	
UK50	Tank A	16-50	15960	3.6	1.64	1.99	150	400	1.35	1.3	0.46	215 x 2
	Tank B			6.6	1.64	2.27	150	700	1.35	1.3	0.56	



- ▶ **UK6 gravity outlet**
Up to 6 PE domestic gravity flow outlet.



- ▶ **UK6 pumped outlet**
1-6 domestic pumped unit. Suitable for pumping to a raised discharge area (over).



- ▶ **UK50 gravity outlet**
Suitable for commercial installation, caters for up to 50 people.

Tricel Novo riser options for deep installation

Tricel offer three different manhole riser heights to suit different invert/inlet levels. Manhole risers allow for the positioning of the treatment plants at the depth which is optimum to each individual installation. Wastewater is gravity fed from the home to your treatment plant. The inlet pipe's position from the premises determines the excavation depth for the wastewater treatment plant. Tricel offer a choice of manhole risers 250mm/500mm/750mm to help with installation where site conditions require a flexible solution.

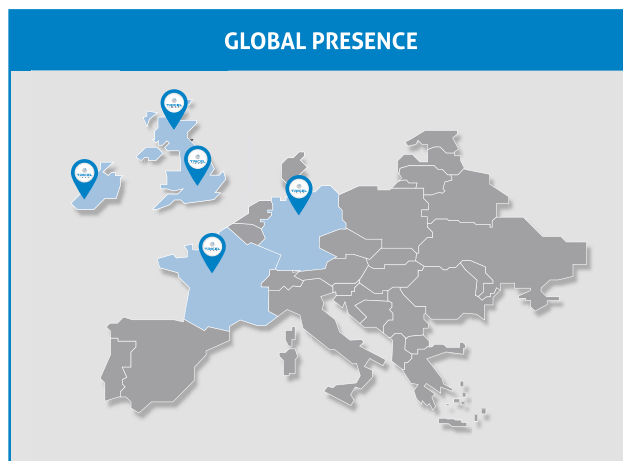
Tricel Group

Tricel is a world recognised global provider of **high-performance solutions**. Today, the company operates across multiple industries such as **Environmental, Construction, Water and Distribution**, including both composite materials and lubricants.

We occupy a unique position in the field of reinforced plastics, combining the technical expertise of **over 60 years in the press-moulding and composites industry**. Tricel is proud of being one of the largest manufacturers of wastewater treatment plants in Europe, and are regarded by regulators as the standard setters within the industry.

Tricel are **experts in Sheet Moulding Compound (SMC)** processes and produce the only wastewater treatment plant in Europe constructed from this material. This process gives the highest strength to thickness ratio of any tank on the market, and has no risk of corrosion over time.

Our company offers industry **leading innovative solutions** that our customers can trust, and with operations in 12 locations across Europe we supply a comprehensive range of products to **over 50 countries worldwide**.



Membership of European governing bodies on wastewater treatment



Tricel wastewater treatment plants are fully tested and accredited to **European standards for CE certification**.

PIA (Prüfinstitut für Abwassertechnik GmbH) are the leading Test Institute in Europe for wastewater technology.

Tricel wastewater treatment plants meet with **EN12566-3** requirements which test both the quality of the components as well as the overall performance of the plant.



British Water is the leading association representing suppliers, manufacturers, contractors, consultants and others in the UK water industry supply chain.

WARRANTY - UK ONLY* *EXCLUDING NORTHERN IRELAND



- The warranty period for **mechanical parts** within the products is **3 years** from the date of purchase. This includes the compressor, control panel, ceramic diffuser and all internal components.
- The SMC structure of the tanks carry a **20 year warranty** from date of purchase.
- All products are **CE certified to EU safety**, health and environmental requirements.

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environment@tricel.co.uk

Tricel Environmental UK, Tricel Weston, Winterstoke Road, Weston-super-Mare, BS24 9AN, United Kingdom

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In accordance with Tricel's normal policy of product development these specifications are subject to change without notice.



APPENDIX 2

Special Areas of Conservation Citations

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	Peak District Dales
Unitary Authority/County:	Derbyshire, Staffordshire
SAC status:	Designated on 1 April 2005
Grid reference:	SK142550
SAC EU code:	UK0019859
Area (ha):	2326.33
Component SSSI:	Ballidon Dale SSSI, Coombs Dale SSI, Cressbrook Dale SSSI, Dove Valley and Biggin Dale SSSI, Hamps and Manifold Valleys SSSI, Lathkill Dale SSSI, Long Dale and Gratton Dale SSSI, Long Dale, Hartington SSSI, Matlock Woods SSSI, Monks Dale SSSI, The Wye Valley SSSI, Topley Pike and Deep Dale SSSI, Via Gellia Woodlands SSSI

Site description:

The Carboniferous Limestone massif of the Peak District is one of the most important in Britain, lying in latitude and altitude between the Mendips and the Craven area of Yorkshire. The limestone is cut by valleys, the 'dales', which contain a wide range of wildlife habitats, particularly woodland, scrub and grassland. This mosaic of habitats and the transitions between them are of exceptional interest for a wide range of characteristic, rare and uncommon flora and fauna.

Peak District Dales includes one of the largest surviving areas in England of sheep's-fescue – meadow oat-grass (*Festuca ovina* – *Helictotrichon pratense*) grassland. Grasslands at this site range from hard-grazed short turf through to tall herb-rich vegetation, with transitions through to calcareous scrub and ash *Fraxinus excelsior*-dominated woodland. Taken together the ash woods of the ravines and slopes of the Dales comprise one of the largest areas of this habitat in Great Britain. There is also a great physical diversity due to rock outcrops, cliffs, screes and a variety of slope gradients and aspects. This is an area where northern species meet southern species such as the dwarf thistle *Cirsium acaule*. The relatively cold oceanic nature of the climate means that there is enrichment with northern floristic elements, such as limestone bedstraw *Galium sternerii* and globeflower *Trollius europaeus*.

There is a wide range of grassland, from that characterised by sheep's-fescue and meadow oat-grass through to less calcareous types to, in places, an acidic heath grassland mosaic with heather *Calluna vulgaris*, bilberry *Vaccinium myrtillus*, dwarf gorse *Ulex gallii* and many other calcifugous (lime-hating) species. This heath can grade into a taller scrub dominated by dwarf gorse.

The site contains a large area of mixed woodland, dominated by ash *Fraxinus excelsior*. Locally, sycamore *Acer pseudoplatanus* is abundant. Lime *Tilia* spp. although not widely distributed can be a major component of some of the woods. The Dales provide good examples of woodland-scrub-grassland transitions, with associated rich invertebrate populations and plant communities. Among the uncommon plants present in the woods are mezereum *Daphne mezereum* and green hellebore *Helleborus viridis*, as well as whitebeams *Sorbus* spp. on the crags.

Other habitats in the dales include rock outcrops and scree. Dog's mercury *Mercurialis perennis* colonises scree along with oat-grass *Arrhenatherum elatius* and mouse-eared hawkweed *Hieracium pilosella*. Cliff ledges support a wide range of vegetation types from scrub and woodland, including species such as yew *Taxus baccata*, through to areas with only thin soils supporting tiny annual plants. Rock outcrops are typically colonised by early flowering species such as rue-leaved saxifrage *Saxifraga tridactylites* and shining cranesbill *Geranium lucidum*. Smaller species of ferns are often abundant and these include rusty-back *Ceterach officinarum* and green spleenwort *Asplenium viride*. This habitat in the Dales is one of the strongholds for the endemic moss *Brachythecium appelyardiae*. Dove Dale is one of the richest sites in the Peak District for lichens, in particular for saxicolous (rock-loving) species, such as *Clathroporina calcarea*, which occurs on vertical limestone crags, and *Solorina spongiosa* and *Verrucaria murina*. Spoil heaps of old lead mines support assemblages of plants indicative of metal-rich soils (metallophytes), including spring sandwort *Minuartia verna*, rock hutchinsia *Hornungia petraea* and alpine pennycress *Thlaspi alpestre*.

Many dales are dry but some have streams in winter only and some, permanent or semi-permanent rivers. These watercourses support important populations of brook lamprey *Lampetra planeri*, bullhead *Cottus gobio* and white-clawed crayfish *Austropotamobius pallipes*. A number of the dales also support fen vegetation associated with springs and flushes. These include alkaline fen vegetation, which supports species such as the common butterwort *Pinguicula vulgaris*.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Alkaline fens. (Calcium-rich springwater-fed fens)
- Calaminarian grasslands of the *Violetalia calaminariae*. (Grasslands on soils rich in heavy metals)
- Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*). (Base-rich scree)
- Calcareous rocky slopes with chasmophytic vegetation. (Plants in crevices in base-rich rocks)
- European dry heaths
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*). (Dry grasslands and scrublands on chalk or limestone)
- *Tilio-Acerion* forests of slopes, screes and ravines. (Mixed woodland on base-rich soils associated with rocky slopes)*

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Brook lamprey *Lampetra planeri*
- Bullhead *Cottus gobio*
- White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes*

Annex I priority habitats are denoted by an asterisk (*).

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0019859
Date of registration: 14 June 2005
Signed: *Trevor Salmon*
On behalf of the Secretary of State for Environment, Food and Rural Affairs

European Site Conservation Objectives for Peak District Dales Special Area of Conservation Site Code: UK0019859



With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats and habitats of qualifying species**
- **The structure and function (including typical species) of qualifying natural habitats**
- **The structure and function of the habitats of qualifying species**
- **The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H4030. European dry heaths

H6130. Calaminarian grasslands of the *Violetalia calaminariae*; Grasslands on soils rich in heavy metals

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); Dry grasslands and scrublands on chalk or limestone

H7230. Alkaline fens; Calcium-rich springwater-fed fens

H8120. Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*); Base-rich scree

H8210. Calcareous rocky slopes with chasmophytic vegetation; Plants in crevices in base-rich rocks

H9180. *Tilio-Acerion* forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes*

S1092. *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish

S1096. *Lampetra planeri*; Brook lamprey

S1163. *Cottus gobio*; Bullhead

* denotes a priority natural habitat or species (supporting explanatory text on following page)

*** Priority natural habitats or species**

Some of the natural habitats and species for which UK SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Habitats Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 as amended from time to time (the "Habitats Regulations"). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in regulation 3 of the Habitats Regulations.

Publication date: 27 November 2018 (version 3). This document updates and replaces an earlier version dated 30 June 2014 to reflect the consolidation of the Habitats Regulations in 2017.

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	South Pennine Moors
Unitary Authority/County:	Barnsley, Bradford, Calderdale, Cheshire, Derbyshire, Kirklees, Lancashire, Leeds, North Yorkshire, Oldham, Rochdale, Sheffield, Staffordshire, Tameside
SAC status:	Designated on 1 April 2005
Grid reference:	SK144960
SAC EU code:	UK0030280
Area (ha):	64983.13
Component SSSI:	Dark Peak SSSI, Eastern Peak District Moors SSSI, Goyt Valley SSSI, Leek Moors SSSI, South Pennine Moors SSSI

Site description:

This site covers the key moorland blocks of the Southern Pennines from Ilkley Moor in the north to the Peak District in the south. The moorlands are on a rolling dissected plateau formed from rocks of Millstone Grit at altitudes of between 300m – 600m and a high point of over 630m at Kinder Scout. The greater part of the gritstone is overlain by blanket peat with the coarse gravely mineral soils occurring only on the lower slopes. The moorlands as a whole support a breeding bird community of national and international importance.

The site is representative of upland dry heath which covers extensive areas, occupies the lower slopes of the moors on mineral soils or where peat is thin, and occurs in transitions to acid grassland, wet heath and blanket bogs. The upland heath of the South Pennines is strongly dominated by *Calluna vulgaris* – *Deschampsia flexuosa* heath and *C. vulgaris* – *Vaccinium myrtillus* heath. More rarely *C. vulgaris* – *Ulex gallii* heath and *C. vulgaris* – *Erica cinerea* heath are found. On the higher, more exposed ground *V. myrtillus* – *D. flexuosa* heath becomes more prominent. The smaller area of wet heath is characterised by cross-leaved heath *Erica tetralix* and purple moor grass *Molinia careulea*. The site also supports extensive areas of acid grassland largely derived from dry and wet heath. In the cloughs, or valleys, which extend into the heather moorlands, a greater mix of dwarf shrubs can be found together with more lichens and mosses. The moors support a rich invertebrate fauna, especially moths, and important bird assemblages.

This site also contains areas of blanket bog, although the bog vegetation communities are botanically poor. Hare's-tail cottongrass *Eriophorum vaginatum* is often overwhelmingly dominant and the usual bog-building *Sphagnum* mosses are scarce. Where the blanket peats are slightly drier, heather *C. vulgaris*, crowberry *Empetrum nigrum* and bilberry *V. myrtillus* become more prominent. The cranberry *Vaccinium oxycoccus* and the uncommon cloudberry *Rubus chamaemorus* is locally abundant in bog vegetation. Bog pools provide diversity and are often characterised by common cottongrass *E. angustifolium*. Substantial areas of the bog surface are eroding, and there are extensive areas of bare peat. In some areas erosion may be a natural process reflecting the great age (up to 9000 years) of the South Pennine peats.

Around the fringes of the upland heath and areas of bog are blocks of old sessile oak woods, usually on slopes. These tend to be dryer than those further north and west, such that the bryophyte communities are less developed (although this lowered diversity may in some instances have been exaggerated by the effects of 19th century air pollution). Other

components of the ground flora such as grasses, dwarf shrubs and ferns are common. Small areas of alder woodland along stream-sides add to the overall richness of the woods.

The moorland also supports a range of flush and fen habitats associated with bogs, cloughs, rivers and streams. Although generally small scale features they have a specialised flora and fauna, which makes a great contribution to the overall biodiversity of the moors. Acid flushes are the most common type and these include transition mires and quaking bogs characterised by a luxuriant carpet of bog mosses *Sphagnum* spp., rushes and sedges.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Blanket bogs*
- European dry heaths
- Northern Atlantic wet heaths with *Erica tetralix*. (Wet heathland with cross-leaved heath)
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles. (Western acidic oak woodland)
- Transition mires and quaking bogs. (Very wet mires often identified by an unstable 'quaking' surface)

This citation relates to a site entered in the Register of European Sites for Great Britain.

Register reference number: UK0030280

Date of registration: 14 June 2005

Signed: *Trevor Salmon*

On behalf of the Secretary of State for Environment,
Food and Rural Affairs

European Site Conservation Objectives for South Pennine Moors Special Area of Conservation Site code: UK0030280



With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of the qualifying natural habitats**
- **The structure and function (including typical species) of the qualifying natural habitats, and,**
- **The supporting processes on which the qualifying natural habitats rely**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H4010. Northern Atlantic wet heaths with *Erica tetralix*; Wet heathland with cross-leaved heath

H4030. European dry heaths

H7130. Blanket bogs*

H7140. Transition mires and quaking bogs; Very wet mires often identified by an unstable 'quaking' surface

H91A0. Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

* denotes a priority natural habitat or species (supporting explanatory text on following page)

*** Priority natural habitats or species**

Some of the natural habitats and species for which UK SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Habitats Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

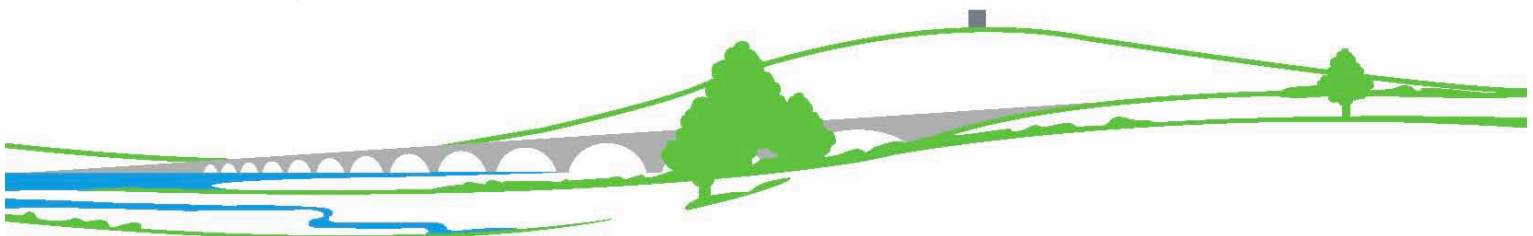
These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 as amended from time to time (the "Habitats Regulations"). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in regulation 3 of the Habitats Regulations.

Publication date: 27 November 2018 (version 3). This document updates and replaces an earlier version dated 30 June 2014 to reflect the consolidation of the Habitats Regulations in 2017.

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