Bristol Avon Catchment Market Project

Biodiversity Gain Plan

SITE NAME: Whaddon Grove Farm
CLIENT: Richard Allan

PROJECT CODES:

PM-A-WGF-W-2

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on behalf of the Bristol Avon Catchment Market.

Version Control

Version	Issue Status	Approved by/date
1.0	DRAFT 1	CF 12/09/2022
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3.0	DRAFT 3	CF 08/02/2023

Project Information Summary

Site or Development Name	Whaddon Grove Farm
Unique Project ID Code	PM-A-WGF-W-2
Period Covered by this Plan	30 years plus establishment
Development Type	Offsite Nature Based Project Supply via Bristol Avon Catchment Market
Planning Authority	Wiltshire Council
National Character Area	Avon Vales
Planning Register Ref. (if available)	
Central OS Grid Reference	ST 88708 60961
Total Project Site Area (Ha)	0.75ha
Metric revision/title	Biodiversity Metric 3.1
Summary of Habitats to be enhanced/created	The conversion of g4 Modified Grassland to a pond mosaic habitat (three ponds, two scrapes and associated bunds and hibernacula) with scrub planting
Consents Required	Yes

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1.0 Introduction

1.1 The Bristol Avon Catchment Market

The Bristol Avon Catchment Market (BACM) has been established through a collaboration between Avon Wildlife Trust, Wiltshire Wildlife Trust and EnTrade. The market ensures to deliver local, high-impact and verified projects to restore nature and provide a range of environmental services such as increased biodiversity, carbon reduction and natural flood management.

The Avon Wildlife Trust and Wiltshire Wildlife Trust will work with landholders so that environmental credits from projects are of the highest integrity, delivering nature recovery where it is most needed. EnTrade will ensure that the market generates fair prices for buyers and sellers through a user-friendly trading platform.

1.2 Site name and purpose of the report

1.2.1 Overview of purpose

This BG Plan refers only to the project as outlined in Appendix A map within the blue line boundary. It is linked to any regulatory buyers by the Local Planning Authority and registries.

This report has been prepared by The Bristol Avon Catchment Market (BACM) on behalf of Richard Allan in relation to a parcel of land at Whaddon Grove Farm, Wiltshire, hereinafter referred to as 'the Site'.

It provides a summary of the results of a Biodiversity Gain Assessment (BGA) for the Site alongside a proposed habitat enhancement/creation project, as part of the BACM. These projects are delivered and maintained over a period of 30 years.

1.2.2 Aims and objectives of the Biodiversity Gain Plan

This Biodiversity Gain Plan aims to:

- Classify the type, distinctiveness, condition, connectivity and strategic significance of habitats present prior to and post-project delivery.
- Ensure that baseline habitat conditions are classified in a robust and consistent manner, and that classification is based on the best available data at the time of assessment.
- Clearly identify data collection methods and any limitations.
- Calculate baseline pre- and post-project delivery habitat units for the site based on project proposals.
- Propose a Biodiversity Gain Plan design concept with the aim of maximising biodiversity gain through habitat creation, enhancement and succession.

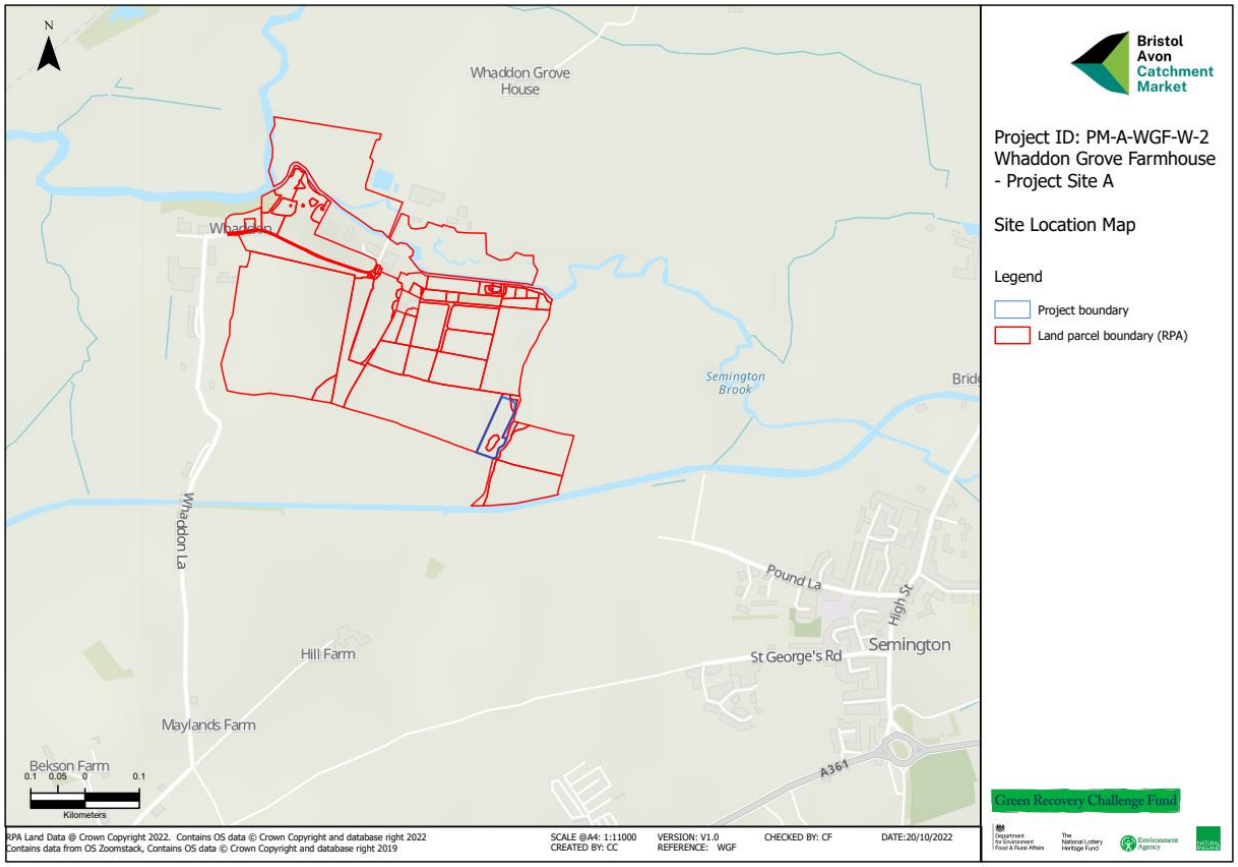
1.3 Site description and location

The site comprises 0.75ha of grazed grassland, approximately 4km north-west of Trowbridge, Wiltshire (see Figure 1 for the project site boundary, also provided as the Site Location Map in Appendix A). It is bordered by a newly planted hedgerow and a non-organic, arable field beyond to the west, a hedgerow/ line of trees to the north and south with further grazed fields beyond and a scrub and tree-lined ditch along the eastern boundary. There is a fenced-off trackway along the northern and part of the eastern boundaries, which is used to transport livestock between fields. The site is located around a central grid reference of ST 88708 60961.

The site forms part of a larger landholding supporting a number of grassland fields, many of which are part of a grazed paddock system, with some scrub habitat, brooks and newly-built ponds throughout the site.

The River Avon runs along the north-western boundary of the landholding, with Semington Brook along the northern boundary (it is here that beavers, otter, water vole and mink are found) which runs into the River Avon, and the Kennet and Avon Canal runs along the southern boundary.

Figure 1 - Project Site Boundary



1.4 Project proposals

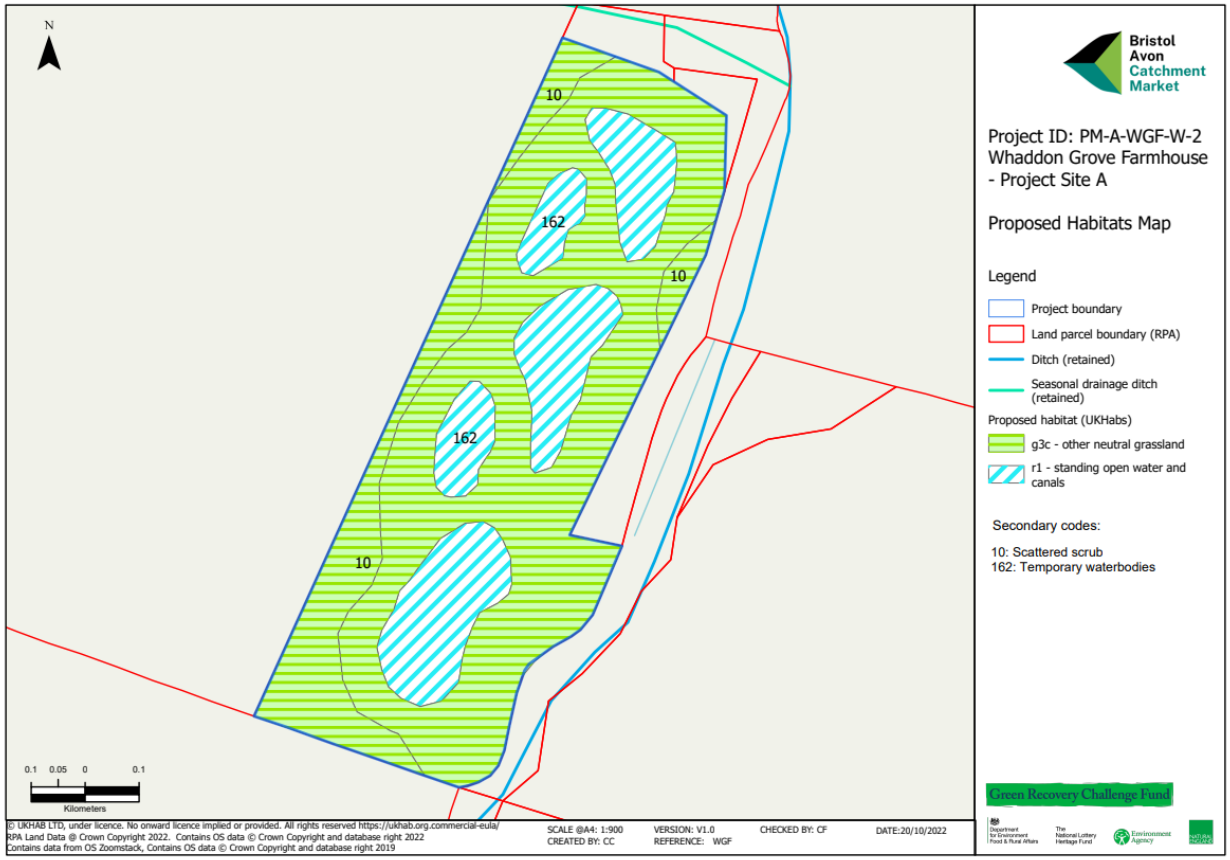
The proposals for the site include conversion of 0.75ha of Modified Grassland to a pond mosaic habitat, with associated scrub planting. The pond mosaic habitat will include creation of three ponds, two scrapes and associated bunds and hibernacula. The creation is to be undertaken in accordance with the Project Specification document, 'Pond Mosaic', provided as Appendix F. This proposal will hereinafter be referred to as a 'project'. See Figure 2 for the Baseline habitats map and Figure 3 for the Project proposals map (also provided as Appendices B and C, respectively).

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Figure 2 – Baseline habitats map



Figure 3 - Project Proposal Map



2.0 Legislation, planning and policy

2.1 Legislation overview

Currently each Local Planning Authority has the authority to enforce their own approach to Biodiversity Gain policy, which is largely targeted at achieving 'no net loss' on all proposed sites for development.

A minimum of 10% Biodiversity Net Gain (BNG) set out in the Environment Bill 2022, is likely to be a legal, mandatory requirement from late 2023. Biodiversity Net Gain will require habitats to be secured for at least 30 years and they must be managed and monitored for the duration of this period.

2.2 Planning policy overview

The Government has issued its National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2021), which requires impacts to biodiversity to be minimised and for net gains to be integrated into planning:

- Paragraph 174(d) requires planning policies and decisions to minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Paragraph 179(b) requires plans to identify and pursue opportunities for securing measurable net gains for biodiversity; and
- Paragraph 180(d) states that opportunities to conserve or enhance biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

2.3 Project specific policies

The site falls under the Wiltshire Council Local Planning Authority (LPA).

One of the strategic objectives of the Wiltshire Core Strategy (Wiltshire Council, 2015), adopted in January 2015, is 'protecting and enhancing the natural, historic and built environment'. Core policies included under this objective which are relevant to this project are summarised below:

Core Policy 50: Biodiversity and geodiversity.
Includes measures such as:

- *Development proposals must demonstrate how they protect features of nature conservation and geological value as part of the design rationale.*
- *All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development.*
- *All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services.*

Core Policy 51: Landscape.
Includes measures such as:

- *Development should protect, conserve and where possible enhance landscape character and must not have a harmful impact upon landscape character*

This project design satisfies these opportunities and priorities.

3.0 Methodology

3.1. Desk study

A desk study was undertaken to collate all relevant existing information relating to the site and its surrounding area up to a 500m radius. The data was used to inform the scope of the subsequent site survey, to assess the habitats present, relevant features on and within the vicinity of the site and strategic significance.

This comprised a review of the following:

- National Biodiversity Network (NBN) Atlas

- Multi-Agency Geographic Information for the Countryside (MAGIC) online database
- Historic England online database
- Environment Agency online database
- Forestry Commission map browser
- Woodland Trust Ancient Tree Inventory
- Google Earth Pro

3.2 Field survey

Following an initial site visit with the landholder on 30th May 2022, a UK Habitat Classification survey (Butcher et al., 2020) was conducted on 23rd June 2022 by experienced ecologists Caitlin Coombs of Avon Wildlife Trust and Kerry White ACIEEM of Wiltshire Wildlife Trust. Habitats recorded on site can be found on the UKHabs Baseline Map provided in Appendix B along with associated secondary codes and target notes, if applicable.

Habitats recorded within the project areas can be found on the UK Habs Baseline Map provided in Appendix B along with associated secondary codes and target notes.

An annotated habitat map together with descriptions of the recorded habitat types was produced during the walkover which was subsequently digitized using a geographical information system (ArcGIS) in accordance with the UK Habitat Classification User Manual V1 (Butcher & Carey, 2018 and Butcher et al, 2020). A Minimum Mapping Unit (MMU) of 400m^2 was used for the mapping. The survey also included identification of any non-native invasive plant species. Flora taxonomy followed the nomenclature detailed in the New Flora of the British Isles (4th Edition) (Stace, 2019).

A habitat condition assessment was carried out during the field survey in accordance with the Natural England (NE) Biodiversity Metric 3.1 Technical Supplement to establish the baseline condition of the habitats present within each project area. Each habitat type was assessed using the NE Biodiversity Metric 3.1. Assessment criteria for that habitat type and where condition changed within that habitat type, a separate assessment was conducted.

3.3 Approach to Biodiversity Net Gain

The Bristol Avon Catchment Market uses a trading mechanism to improve outcomes for landholders and developers by having multiple buyers and sellers trading in a simultaneously cleared market[1]. The Bristol Avon Catchment Market will be trading Biodiversity Units according to the same principles, rules and guidance as set out in the Biodiversity Metric 3.1 User Guide.

The rules concerning the trading of different habitats are specified in the guidance. The Bristol Avon Catchment Market has been designed to be compliant with these trading rules. Rules regarding habitat distinctiveness and condition, strategic significance and spatial risk are applied as set out in the guidance. These rules govern all trades in the Bristol Avon Catchment Market.

The Bristol Avon Catchment Market use the Biodiversity Metric 3.1 to determine how many Biodiversity Units are supplied by a habitat creation project.

[1]Other trading institutions apply forms of bilateral trading where exchanges are established sequentially between one buyer and one seller.

3.4. Calculation of Biodiversity Units

The Biodiversity Metric 3.1 (Natural England, 2021) was used to calculate the change in biodiversity units, after delivery of the proposed project, and the overall percentage of gain expected to be achieved. Metric calculations have been undertaken by Caitlin Coombs of Avon Wildlife Trust.

Full details on the metric can be found in the DEFRA Metric User Guide.

Biodiversity gain calculations were undertaken based on the proposed projects for the site. The initial calculation represents the 'baseline' or 'pre-intervention' value in biodiversity units. The calculation is then repeated for the post-intervention habitats and is based on the design concept plan (see Appendix C). Habitat condition for retained, enhanced and created habitats was assigned taking a precautionary approach.

The predicted value of the habitats in biodiversity units 'post-intervention' is then deducted from the 'baseline' pre-intervention unit score to give a net change unit value.

Metric calculations for this project site are reviewed in Section 6 of this document.

3.5. Evidence of technical competence and experience

The DEFRA Metric has been calculated and operated by Caitlin Coombs, a suitably qualified ecologist working as part of the Bristol Avon Catchment Market.

3.6. Limitations and constraints

The findings of this report are valid at the time of writing (February 2023). Should there be any delays to the project timetable an updated assessment of the site may be required.

The National Biodiversity Network (NBN) Atlas portal holds the most extensive collection of biodiversity information within the UK. Some data have restrictions on their use, depending on the licence-type attributed to them. Therefore, the data extracted from NBN and presented in this report are limited by coarse resolution, time-lags between receipt of data, and NBN commitments not to publish highly sensitive data for some species.

The UK Habitat Classification Survey was undertaken in June, which is within the UK Habitat optimum field survey season for the south of England, considered to be from late March to Mid-October, wherein an accurate picture of the vegetation communities present can be gained.

It is possible that any earlier or later flowering annual species may have been missed during the survey: however, given the types of habitat present within the Site boundary this is not seen as a constraint to the survey findings for the purposes of this report.

There were no other significant limitations encountered during the surveys or calculations.

4.0 Survey results

4.1. Desk study

4.1.1. Site details

The underlying bedrock of the site is Kellaways Formation (mudstone and sandy). The soil is quite compacted and is loamy but clay-rich and slowly permeable, with impeded drainage.

The whole field is low-lying, relatively flat and gets very wet, with surface run-off flowing from west to east (to a low point of 37m in the north-eastern corner) towards a permanently-running ditch beyond the eastern boundary. Some water also collects in the southern part of the field.

There is a semi-permanent flow from a land drain pipe into the ditch beyond the north-eastern corner of the site.

4.1.2. Statutory & non-statutory designated sites

No statutory or non-statutory conservation designations are located within 500m of the site.

4.1.3. Protected & notable species records

Many species of animal and plant receive some degree of legal protection. Legal protection refers to species included in Annex II of the Council of European Communities Habitats Directive 1992 (UK Government, 1992), Schedules 2 and 5 of the Conservation of Habitats and Species Regulations 2017 (UK Government, 2017), and Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended) (UK Government, 1981).

Notable species are not afforded any legal protection but have conservation designations such as UK BAP Priority Species (BRIG, 2011), IUCN Status of Endangered, Vulnerable and Near Threatened (IUCN, 2022) and species that are listed as rare but not under IUCN Criteria, Annex 1 of the Birds Directive (UK Government, 2009) and Species of Principal Importance under Section 41 of the 2006 NERC Act (UK Government, 2006).

Species record searches were undertaken to assess the potential impact of the proposed projects. A search radius was set at 500m to assess direct project impact. Details of the results can be found below.

4.1.3.1 European Protected Species (EPS)

Otter

Otter *(Lutra lutra)* is known to be present in Semington Brook, which runs along the northern boundary of the wider landholding (approximately 280m north of the Site). In addition, NBN atlas provided one record of otter occurring within 500m of the site, from 2018. Although not confirmed, this species could also be using the brook which runs along the eastern boundary of the site.

The otter is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act and is a European Protected Species through the EC Habitats Directive 1992 as implemented by the Conservation of Habitats and Species Regulations 2010. It is also a Biodiversity Action Plan

species for the UK and is listed as a Species of Principal Importance under Section 41 of the 2006 NERC Act.

Beaver

Beaver (*Castor fiber*) is known to be present in Semington Brook and could also be using the brook which runs along the eastern boundary of the site.

Beaver is a European Protected Species through the EC Habitats Directive 1992 as implemented by the Conservation of Habitats and Species Regulations 2010.

4.1.3.2 Priority & notable species

Water vole

Water vole *(Arvicola amphibius)* is known to be present in Semington Brook and could be using the brook which runs along the eastern boundary of the site.

The water vole is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (as amended). Water vole is also a priority species on the UKBAP and is listed as a Species of Principal Importance under Section 41 of the 2006 NERC Act.

Birds

All nesting birds are afforded a basic level of protection under the 1981 Wildlife and Countryside Act (as amended). Species listed on Schedule 1 of the Act receive additional protection against disturbance when breeding. NBN Atlas provided records of six bird species with additional protection recorded within 500m of the site over the last 10 years. These include:

- Herring gull (*Larus argentatus*), which is included on the Red List[1] of the Birds of Conservation Concern; and
- Five species included on the Amber List[2], including black-headed gull (*Chroicocephalus ridibundus*), lesser black-backed gull *(Larus fuscus),* common gull (*Larus canus*), common sandpiper (*Actitis hypoleucos*) and moorhen *(Gallinula chloropus)*.

Badgers

There is a known badger *(Meles meles)* sett to the south of the site within the line of trees. Badgers and their setts are protected under the 1992 Protection of Badgers Act.

4.1.3.3 Invasive species

NBN provided records of Canada goose (*Branta canadensis*) occurring within 500m of the site, most recently in 2019. Canada goose is listed as an invasive species on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to release, plant or cause to grow in the wild any plant included on this schedule of the Act.

4.1.4. Other notable features

There are no other notable features on site.

[1] **Red Listed** (RSPB, 2015): Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.

[2] **Amber Listed** (RSPB, 2015): Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.

4.1.5. Relevance within local and national strategies

The site is located within the 'Avon Vales' National Character Area (NCA) (Natural England, 2014). The project proposals contribute to the Statements of Environmental Opportunity (SEOs) set out within this NCA.

The site lies within 'Area 6 - Bristol Avon Vale Landscape Biodiversity Area' (Wiltshire Wildlife Trust, 2013). The project proposals contribute to the Priorities and Opportunities for Conservation for this area.

4.2. Field survey

4.2.1. Baseline habitats

The results of the UKHabs habitat baseline survey are presented in map form in *Appendix B*. A summary of the site's habitats and features is given below. For photograph location points see Appendix G.

The site comprises 0.75ha of grazed, species-poor, Modified Grassland. It is surrounded by fencing with a grassland trackway beyond the northern and part of the eastern boundaries, which is used to transport livestock between fields. Hedgerow trees have been recently planted along the fenceline separating the site from the trackway. A newly planted hedgerow lines the western boundary fenceline, with a non-organic, arable field beyond. A dry bank (formed historically from ditch clearings) lines the southern boundary, with mature trees and another newly planted hedge. Lining the eastern boundary is an established hedge and mature trees including hawthorn *(Crataegus monogyna)*, blackthorn *(Prunus spinosa)*, field maple *(Acer campestre)*and willow (*Salix* sp.) alongside a ditch. A large oak *(Quercus robur)* tree (with a bat box) is located in the south-west corner.

Modified Grassland (g4)

Secondary codes: 34 (arable reversion grassland), 60 (sheep grazed), 75 (active management)

The area supports Modified Grassland. Although fairly uniform in sward height and species composition, some areas are more tussocky whilst other areas are a shorter sward dominated by annual meadow-grass (*Poa annua*). White clover *(Trifolium repens)* is abundant throughout the field, with frequent dandelion *(Taraxacum officinale)* and perennial rye-grass *(Lolium perenne)*, occasional creeping buttercup *(Ranunculus repens)*, timothy *(Phleum pratense)*, cock's-foot *(Dactylis glomerata)*, Yorkshire fog *(Holcus lanatus)* and annual meadow-grass, with rare spear thistle *(Cirsium vulgare)* and creeping thistle *(Cirsium arvense)*. Curled dock *(Rumex crispus)* and clustered dock (*Rumex conglomeratus*) are scattered across the area, with rare chicory and common nettle.

Historically, the site was used for intensive arable with the field to the immediate west, and was subject to conventional inputs and heavy compaction by farm machinery. In recent years it has been grazed by organic sheep, cattle and pigs, on rotation with the surrounding fields within the landholding.

Photo 1 – View of Project Site A from the north-east, showing the newly planted hedgerow along the western boundary.



Photo 2 – View of Project Site A from the south, with the gated trackway shown at the right.



Surrounding habitats

A non-organic, arable field is directly west of the site boundary. This area slopes slightly towards the north-east and as a result, some agro-chemical run-off could run into the project area. To the east and north of the site are further grazed grassland fields.

The wider landholding is managed for meat livestock farming and wildlife. The landowner has planted trees, hedgerows, scrub and ponds.

4.2.2. Quantitative baseline summary

A baseline habitat condition assessment of all the different habitats present on site was carried out to determine the condition at the time of survey and to generate a condition score of good, moderate or poor for each habitat compartment. The habitat survey data was then used to fill in the DEFRA Biodiversity Metric 3.1.

The full findings of the condition assessment are provided in Appendix E. A summary is provided in Table 1 below.

Table 1 - Condition assessment results

Project Site	Baseline Habitat	Assessment Results	Condition
A	Modified Grassland g4	Passed criterion 1, 3, 5 & 6 Failed criterion 2 & 4	Moderate

4.2.3. Species

Habitats within the project areas offer suitability to support a range of protected and notable species such as bats, great crested newts, hazel dormouse and badgers however, no species surveys were undertaken as it is considered that the proposals will be beneficial to the conservation of these species.

4.2.4. Biodiversity metric calculations

The habitat, area and condition assessment were used with the Defra Calculator version 3.1 to determine the habitat units for each compartment. Overall, the baseline habitat value of the site was calculated as 2.95 habitat units.

A copy of the metric as an Excel Macro file is included in Appendix D.

4.3. Biodiversity Net Gain Good Practice Principles

4.4. Limitations

There were no other significant limitations encountered during the surveys or calculations.

5.0 Proposals

5.1. Overview of the proposed design

The proposals for the site include conversion of 0.75ha of Modified Grassland, within a small field to the south of a larger landholding, to a pond mosaic habitat with associated scrub planting. The newly-created pond mosaic habitat will include three ponds (Ponds – Non-priority Habitat), two scrapes (Temporary lakes, ponds and pools) and associated bunds and hibernacula. The proposed waterbodies and associated scrub will enhance the area of low-lying land around the ditch, facilitating a continuous thin wildlife corridor, and will compliment other wetland habitats nearby, such as the ditch and scrub corridor to the east and the nearby River Avon, Semington Brook and the Kennet and Avon Canal. The project will provide additional habitat for amphibians and other wetland/aquatic species to thrive. A detailed design concept map can be found in Appendix C.

The Proposed Habitats Plan was created in liaison with the team ecologists and land managers, to ensure that the project design delivers the best and most appropriate habitat measures which maximise enhancement for biodiversity.

The project site boundary falls within an existing fenceline, and excludes a section of trackway which runs along part of the northern and eastern field edges. Prior to project establishment, the trackway (and fenceline) will be extended across the northern boundary so that the entire

northern boundary will be a permanent grass trackway with a mix of newly established, old hedge line and an existing drainage ditch. This is reflected in all project design maps.

The pond mosaic will be created by excavation of ponds and scrapes during an appropriately dry time of year (such as September/October). All excavated soil will be repurposed into the relevant hibernacula and earth bunds. The banks/bunds of the waterbodies will be established with vegetation, by surface sowing of a seed mix directly onto the exposed soil after excavation. Native scrub is to be planted around the edges of the site, in naturalistic clumps with an approximate spacing of 0.5-1m. This will add to the mosaic of habitats within the project proposal. See Section 7 for full details on project implementation.

5.2. Notable features to be retained

The project area is focusing on an area of agriculturally improved grassland, surrounded by fencing, which is currently offering limited opportunities for wildlife. The adjacent hedges, ditch and trackway have been excluded from the site boundary and are being retained in their current condition as they are already providing good quality habitat for wildlife.

5.3. Habitats to be enhanced or created

The poor condition Modified Grassland is currently is providing limited opportunities for wildlife, whilst the project proposals would significantly enhance the level of biodiversity the areas are capable of supporting.

The project design, as illustrated in Appendix C, includes creation of 0.75ha of pond mosaic habitat, supporting three ponds (Ponds – Non-priority Habitat), two scrapes (Temporary lakes, ponds and pools), associated bunds and hibernacula, and scattered scrub. This will fall within a fenceline (which is to be slightly adjusted prior to project establishment, as reflected in all project maps. The ponds and scrapes will be excavated at a suitable time of year, with excavated soil being repurposed into bunds and hibernacula. The banks are to be seeded, with a native seed mix, soon after excavation (directly onto exposed soil) in order establish over 75% vegetation cover. Planting of native scrub around the ponds and field edges will add to the mosaic of habitats. See Section 7 for full details on project implementation.

This entire area will be managed and monitored for a period of 30 years to maximise benefits for biodiversity. Specifically, this will include periodic removal/cutting of emergent vegetation if it begins to take over, manual control of duckweed, filamentous algae and invasive species where necessary, keeping scrub in check to prevent succession and ensure it doesn't shade out the ponds, and maintaining fence boundaries to ensure livestock are not able to poach within the pond. See Section 7 for full details on project management, maintenance and monitoring requirements.

6.0 Biodiversity Gain metric calculations

6.1. Overview of the BG delivered

A unit gain of 3.69 habitat units was identified following the completion of baseline and post-project delivery calculations, due to an area of Modified Grassland being replaced by Other Neutral Grassland, Ponds (Non-priority Habitat), Temporary Lakes, Ponds and Pools, and Mixed

Scrub habitats. This accounts for 125.23% gain in habitat units present at the site. This is summarised in Table 2 and Table 3 below.

Table 2 – Overview of habitat proposals

Project Site	Baseline Habitat Type	Proposed Habitat Type (with secondary code)	Targeted Condition Change	Years to Target Condition
A	Modified Grassland g4	Ponds (Non-priority Habitat) r1	Good - Good	5 years
	Modified Grassland g4	Temporary Lakes, Ponds and Pools r1 (162)	Good - Good	5 years
	Modified Grassland g4	Mixed Scrub g3c (10)	Good - Good	10 years
	Modified Grassland g4	Other Neutral Grassland g3c	Good - Good	15 years

Table 3 – Biodiversity units pre- and post- project delivery

Baseline value	Post-project value	Change in units	Quantitative Outcome
2.95	6.64	+ 3.69	Net Gain (+125.23%)

A copy of the metric as an Excel Macro file is included in the Appendix D.

6.2. Assumptions and limitations

The Catchment Market Operator assumes all risk of projects not meeting the required condition within the project lifetime. Establishment and management plans have been produced by ecologists within partnering Avon and Wiltshire Wildlife Trusts to ensure the highest target conditions can be attained.

Ponds and scrapes

The created waterbodies proposed in this project are assumed to meet the criteria of medium distinctiveness Ponds (Non-priority Habitat) (UKHab classification r1 (standing open water and canals)), and high distinctiveness Temporary Lakes, Ponds and Pools (UKHab classification r1 (standing open water and canals) with secondary code 162 (temporary waterbodies)), all in 'good' condition.

The management prescriptions which have been proposed for the next 30 years (which are based on sound evidence of numerous successful habitat enhancement projects and case studies) will ensure that the pond and scrape habitats on site will achieve 'good' condition, as defined in the condition assessment criteria for these habitat types. Specifically, the proposed management will promote:

- clear water with low turbidity
- semi-natural habitat for at least 10m from the waterbody edge
- less than 10% of the waterbody being covered with duckweed or filamentous algae

- no artificial connections to other waterbodies
- water levels being allowed to fluctuate naturally throughout the year
- an absence of artificially stocked fish and non-native plant and animal species[3]
- emergent, submerged or floating plants (excluding duckweeds) to cover at least 50% of the waterbody area that is less than 3 m deep
- minimal shading by woody bankside species.

Mixed scrub

The planted scrub is assumed to meet the criteria of a medium distinctiveness Mixed Scrub habitat in 'good' condition.

As long as the scrub doesn't exceed 90% coverage across the area, the scrub-planted area is classified as Other Neutral Grassland (g3c) with scattered scrub (secondary code 10).

We are assuming that; within the total grassland area (around site edges) enhanced to Other Neutral Grassland (g3c) with scattered scrub (secondary code 10)'; there will be 50% grassland and 50% mixed scrub. Therefore, in the Metric Calculator, we have entered half the total scrub-planted area as Other Neutral Grassland, and half the area as Mixed Scrub.

The management prescriptions which have been proposed for the next 30 years will ensure that the scrub habitat on site will achieve 'good' condition, as defined in the condition assessment criteria for this habitat type. Specifically, the proposed management will promote:

- at least three woody species including typical species of the 'Mixed Scrub' habitat type
- a diversity in age range, including seedlings, young shrubs and mature shrubs
- an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981)
- suppression of species indicative of sub-optimal condition (eg creeping thistle)
- a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s)
- clearings, glades or rides within the areas of scrub

Grassland

Although no direct management is being focused on the remaining grassland within the project site area, with removal of grazing and proximity to newly seeded areas it is assumed that the Modified Grassland will increase in biodiversity value to meet the criteria of a medium distinctiveness Other Neutral Grassland habitat in 'good' condition over the project duration. Sowing of seed on these areas is included in the Establishment Plan as optional, but not mandatory. However, this would increase the rate of the area increasing in biodiversity value. The soil type, existing vegetation community, location and proposed management prescriptions all indicate that the diversity and composition of the grassland will transform to an extent that the UKHabs definition of the area will change from 'g4 – Modified Grassland' to 'g3c - Other Neutral Grassland'.

The management prescriptions which have been proposed for the next 30 years will ensure that the grassland habitat on site will achieve 'good' condition, as defined in the condition assessment criteria for the habitat types. Specifically, the proposed management will promote:

[3] Any species included on the Water Framework Directive UKTAG GB High Impact Species List

- a higher diversity of wildflowers including typical species of the 'Other Neutral Grassland' habitat type
- a varied sward height
- an optimum amount of bare ground cover (between 1 and 5%)
- suppression of species indicative of sub-optimal condition (eg creeping thistle)

7.0 Project implementation and construction

7.1. Establishment plan

The proposals for the site include creation of 0.75ha of pond mosaic habitat within a small field to the south of a larger landholding, supporting three ponds, two scrapes, associated bunds and hibernacula, and scattered scrub. This will fall within a fenceline (which is to be slightly adjusted prior to project establishment, as reflected in all project maps.

A Project Specification and Establishment Plan has been produced and presented in a Landholder Information Pack as part of the Bristol Avon Catchment Market documentation. Please see Appendix F.

7.2. Management plan

A Management Plan has been produced and presented in a Landholder Information Pack as part of the Bristol Avon Catchment Market documentation. Please see Appendix F.

7.3. Responsible person/s

Richard Allan – Landholder by Title Deed, referred to as Project Seller within Bristol Avon Catchment Market.

8.0 Biodiversity Net Gain management and monitoring plan

8.1. Detailed management and maintenance of the project for the minimum of 30 years

The Nature-based Project Agreements are offered for permanent land-use change. Permanent in this context means a minimum of 30 years and the agreement will include conditions that guarantee this permanence, even if transferred to different ownership, thus preventing any future land use changes.

Management and maintenance of the project for the full 30 year period will be the responsibility of the landholder. A Management Plan has been provided as part of the Landholder Information Pack; see Appendix F.

8.2. Monitoring (methods, frequency and timings and reporting procedures)

Monitoring in the Bristol Avon Catchment Market aims to confirm the continued existence and proper management of nature-based projects supplied to generate credits/units.

Monitoring will be carried out in accordance with current national guidance for monitoring off site biodiversity gain projects as provided by Natural England. Scheduled monitoring visits will be carried out by the Market Operator to verify the project delivery in year 1 and at the following intervals 3, 5, 10, 15, 20, 25 and 30 years. In addition to the scheduled visits, annual declarations and evidence of compliance are submitted by landholders.

8.3. Roles and responsibilities for implementing the MMP

Market Operator

The Market Operator will carry out contract supervision, project verification and compliance monitoring to confirm the efficacy of the contracted nature-based projects:

- The Market Operator will record all annual landholder compliance returns. Project compliance will be recorded in the Project Registry.
- Annual compliance returns will be reviewed by the Market Operator and any projects with identified compliance risks will be visited by the Market Operator within 3 months.
- If the land on which a project is situated changes ownership, then the Market Operator will carry out two annual visits in years 1 and 2 following the change of ownership.
- Scheduled site monitoring visits will be carried out by the Market Operator or their agents following project delivery and verification. These visits will be carried out at the following intervals 1, 3, 5, 10, 15, 20, 25 and 30 years. The Catchment Operator will produce a Project Monitoring Report with a summary of the habitat type, extent, and condition with a comparison against the Biodiversity Gain Plan[1].
- The Market Operator will produce an annual report for relevant Local Planning Authorities that includes compliance data for all projects.

Landholder

The landholder is responsible for the establishment and management of the project area for the duration of the project agreement (31 years). They are responsible for submitting any relevant evidence of management activities in accordance with their Nature Based Project Agreement and management plan, for example:

- Annual compliance returns submitted to the Market Operator by landholders via email or the Market Platform.
- Photographic records

[1] A habitat condition assessment will be completed in accordance with the Natural England (NE) Biodiversity Metric 3.1 Technical Supplement.

8.4. Legal and financial requirements for delivery of MMP

Legal Framework

Project delivery is contracted by the Market Operator through a Nature-based Project Agreement.

The delivery of the project to the Project Specifications, the requirements of the Management and Maintenance Plan (Appendix F) and the Biodiversity Gain Plan are secured via the Nature Based Project Agreement.

Ongoing compliance and enforcement of the Nature Based Project Agreement is secured via a Section 106 Agreement between the landholder and the relevant Local Planning Authority.

The Nature Based Project Agreement Conditions Precedent require the Landholder to:

- Secure all Authorisations necessary to deliver the Project; and
- Enter into a Section 106 Agreement with the Local Planning Authority.

Local Planning Authority enforcement mechanisms including step in rights are secured by the Section 106 agreement with the relevant Local Planning Authority.

Financial

The Market Operator will secure a Compliance Fund to be held in an account for purposes of the ongoing monitoring of nature-based projects contracted in each market round. The Compliance Fund is secured via the fixed market fees paid by buyers in the Bristol Avon Catchment Market.

A fixed annual payment is paid to landholders by the Market Operator for 30 years from project verification to meet the costs of ongoing management, maintenance and the provision of annual compliance returns as set out in the Management Plan.

9.0 Conclusions

A BG calculation was completed in connection with the proposed pond mosaic project at Whaddon Grove Farm, located in Wiltshire. Using the Defra Biodiversity Metric 3.1 Calculator, the overall biodiversity gain for the site was found to be 3.69 biodiversity units.

10.0 References

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11.0 Appendices

Appendix A

- Site Location Map

Appendix B

- UKHabs Baseline Map

Appendix C

- Proposed Habitats Map

Appendix D

- Biodiversity Metric

Appendix E

- Habitat Condition Assessment survey sheets

Appendix F

- Project Specification and Establishment Plan
- Management Plan

Appendix G

- Photo Location Map