

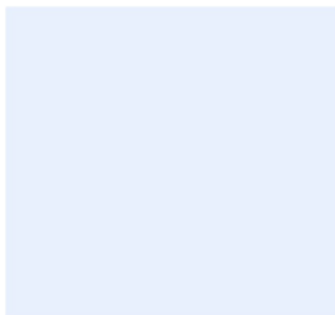
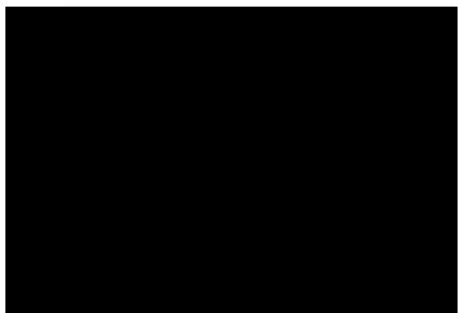
# Habitat Management and Monitoring Plan

<b>Site Name:</b>	Newlands Nursery, Sawley Road, Chatburn BB7 4LD
<b>Date:</b>	19/11/2024
<b>Version:</b>	1



Author:

Client:



## Template Document User Guide

Please delete this guidance page upon completion.

### Template User Guide

You can use the Habitat Management and Monitoring Plan Template (HMMPT) for on-site or off-site biodiversity net gain projects. It is suitable for sites of varying sizes and complexity, from small and simple to large and complex. It provides a series of tables, figures and textboxes. Complete these to demonstrate how habitat creation, enhancement and management will be undertaken. Not every box will be relevant to every project. Omit those considered not relevant to your project, applying professional judgement.

### Companion Document

The Companion Document contains templates for each broad habitat type used in the statutory biodiversity metric. It also assists authors in completing the 'Environmental Information', 'Creation, Enhancement and Management' and 'Monitoring' sections. To tailor the plan for your site, insert the relevant standardised forms from the Companion Document into your main HMMPT.

### Site Baseline and Environmental Information

Considering the site's characteristics, choose the relevant baseline site conditions and background environmental information to include in your management plan. This is essential in informing the design of your project and shows the reviewer you have considered these in the proposals for the site. These include the proposed habitat creation and enhancement. Also, what is appropriate to include or exclude, or to point the reviewer to relevant information that has provided elsewhere as part of the application. Use the 'Baseline and Environmental Checklist PB-T01' to record relevant references, or reasons if not included.

### HMMP Checklist (separate document)

This checklist is a summary of the HMMP Template headings. Author and reviewer can scan the list to check which HMMP details to include, or that have been included, in the submitted plan. You can also list and link to relevant supporting documents to accompany the templated details if required. This helps avoid duplication of information. The reviewer can then easily check which information to expect to see in the HMMPT and which to review in an alternative linked document.

### Formatting

The HMMPT format is intended as a guide. The Template uses standard Microsoft Word formatting that has not be locked for editing. You can therefore adjust it to tailor your HMMP as required for the specific site and according to your preferences. For example, you can change text box sizes to reduce blank space in the template.

There are opportunities to provide and reference additional photographs and plans as separate appendices if required. Provide the reference number of the appropriate appendix, or location if included in a separate report, using the appropriate box within the template.

**Text in grey is provided as a prompt. Replace grey text with your own words. Remember to change to black text then delete any remaining grey 'prompt' text.**

**You can delete blue text as this is for guidance purposes only.**

**Each text box in this HMMPT has a unique ID to assist reviewers. Do not change the reference code of any Boxes or Tables.**

### Supporting documents

- [HMMPT Companion Document](#)
- [Statutory Biodiversity Metric tools and guides](#)
- [Biodiversity Net Gain Guidance](#)

### Using the Companion Document

The Companion Document includes additional boxes and tables that must be manually copied into this template using the copy-and-paste function. To streamline the copying and pasting process, you can minimise the heading by selecting the arrow on the left. Once the arrow is selected, when you copy, you will also copy any accompanying boxes or tables.

It is the author's responsibility to decide what additional information is appropriate to include.

Template published by Natural England.

We acknowledge the significant input from the HMMPT user-testers and production on Natural England's behalf by FPCR Environment and Design.

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## Version Control

The version control is used for updates to the content. Record the initial version and further version control details in this table each time the management plan is altered throughout the management and monitoring period.

Version	Issue Status	Prepared by / Date	Approved by / Date
1		Jonathan Pounder 19/11/2024	

## Document Details

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# 1. Project Background

Summarise the key aspects of your management plan in this section. Table PB-B01 can be extended to suit the specific needs of individual projects.

Site Overview PB-B01	
<p>This document was prepared by Jonathan Pounder (JP Environmental Solutions) working for Carol Edmondson (Ark Ecology) working on behalf of the client (Gary Hoerty Associates working on behalf of Mr Peter Bristol) to support a planning application for the addition of three polytunnels on the site at Newlands Nursery, Sawley Rd, Chatburn BB7 4LD.</p> <p>Full planning permission was granted on the 6<sup>th</sup> September 2024.</p> <p>This document is the Habitat Management and Monitoring Plan (HMMP) to accompany the project details as listed on the planning portal - <a href="#">Planning Application - Ribble Valley Borough Council</a></p>	
<b>Project type</b>	Addition of three polytunnels at Newlands Nursery
<b>Development Name and Address</b>	Addition of three polytunnels at Newlands Nursery, Newlands Nursery Sawley Road Chatburn BB7 4LD
<b>BNG Project Name and Address</b>	Addition of three polytunnels at Newlands Nursery, Newlands Nursery Sawley Road Chatburn BB7 4LD
<b>Author Organisation</b>	JP Environmental Solutions
<b>Landowner</b>	Mr Peter Bristol
<b>Land Manager</b>	Mr Peter Bristol
<b>Responsible person/organisation for creating or enhancing the habitat</b>	Mr Peter Bristol
<b>Period covered by this management plan</b>	Start date: 1st Dec 2024 End date: 1st Dec 2054 5-year update: 1st Dec 2029
<b>Planning authority</b>	Ribble Valley Borough Council
<b>Planning reference (if applicable)</b>	3/2024/0418
<b>BNG register reference (if applicable)</b>	N/A
<b>Central OS grid reference</b>	SD77024456
<b>Metric revision/title</b>	Statutory biodiversity metric – V1 – 16 <sup>th</sup> May 2024
<b>Are any Irreplaceable Habitats present onsite</b>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

## Summary of Management Plan

### Habitats to be Retained, Created and Enhanced PB-B02

The following Habitat Management & Monitoring Plan (HMMP) covers the immediate development site (red line boundary) and land adjacent to the development site but in ownership and management control of the landowner (blue line boundary).

The proposal will see the current existing on-site habitats be cleared to make way for the proposed development meaning a loss of 0.15 Habitat Units.

The Onsite Habitat baseline gave:

- Modified Grassland - 0.0773Ha in Poor condition
- Developed land, sealed surface - 0.0386Ha

The development will be compensated by both On-site Habitat creation and Off-site habitat Creation resulting in:

The On-Site Habitat Creation will see the creation of:

- Developed land, sealed surface – 0.1159Ha

The Off-Site Habitat Creation of:

- 14x Individual small Rural tree – 0.057 Ha in Moderate condition

### Timescales for Actions PB-B03

The legal obligation for the land owner to manage the habitat for a 30-year period will begin once all Biodiversity Net Gain (BNG) habitat enhancement works have been completed. The anticipated start date of proposed works is to be confirmed.

The On-site Habitat Creation and Off-site Habitat creation will be established in the first year of the development.

By Year 2, all establishment management of the site will have been completed, with post-establishment management and monitoring to then be undertaken in order to meet the following targets:

- The Off-site small rural trees are to be at Moderate condition assessment by Year 27.

By Year 10, the site is expected to have largely achieved the targeted habitat condition score. Long-term management will commence after initial establishment, continuing for a total of 30 years.

### Monitoring Requirements PB-B04

The monitoring will be undertaken annually between years 1-5, thereafter in years 10, 15, 20, 25, 27 and 30.

“As and when” informal inspections can take place if required outside of the established regime above, if a particular issue is noticed.



The key aim of monitoring will be to monitor and track the success of targets for habitat creation and/ or enhancement and to trigger remedial measures, where necessary. The monitoring visits will also be a chance to update any land ownership changes and the parties involved in delivering the practical activities and monitoring program.

This is an adaptive management plan; over time, it may be necessary to adjust management measures according to the success of the outcomes. This will be a process of monitoring, evaluating, and modifying the plan as required to reach the same desired outcomes within the time allowances established.

The responsible authority will be consulted if any significant changes are required.

Any other qualitative or supporting information will be collected, as required.

**Required Consents and Licences PB-B05**

N/A

**Funding PB-B06**

Works to be funded by the land owner as part of the development.

**Legal Agreement PB-B07**

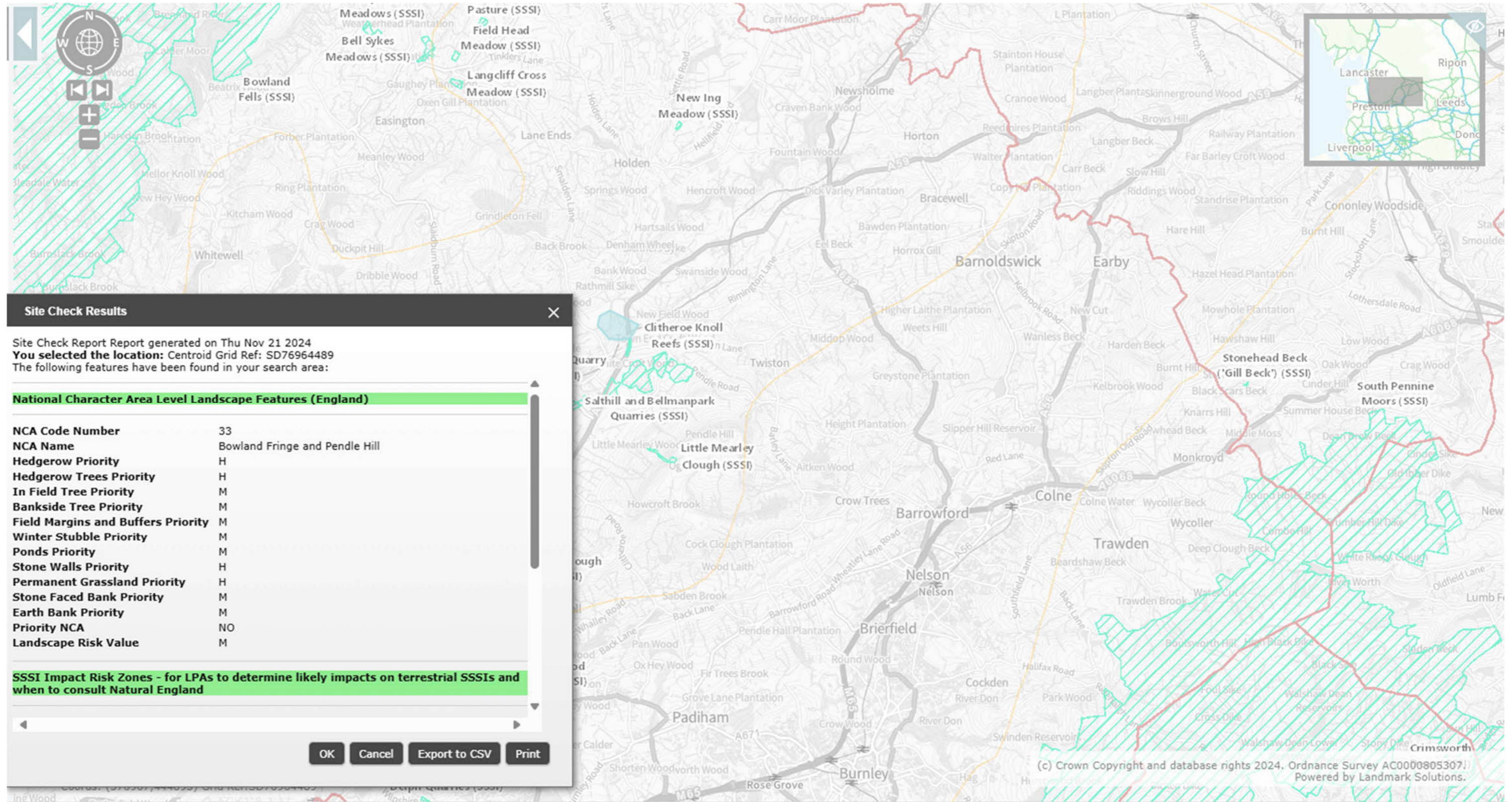
N/A.





# Site Context Plan PB-F02

This plan should show the location of the site, including the LPA, boundary, national character area, and any relevant landscape scale policy or guidance information.





## Phasing strategy

**Will the proposed work measures be delivered in phases? PB-B08** Yes:  No:

This management plan is structured as a single, continuous scheme rather than being divided into phases. Its primary objective is to achieve the BNG targets quickly and then sustain the BNG targets over a 30-year period. The plan focuses on the ongoing management of the off-site rural tree planting (14 trees) to support biodiversity improvement.

Year 1:

- The on-site development is undertaken and the off-site 14x Moderate Small Rural Trees being planted in the adjacent off-site. Following the planting, management work will be undertaken.

Year 2 and Onwards:

- Planted tree management and inspections continues.
- Monitoring and Adaptive Management commences.

## Roles and Responsibilities

Provide details of the responsible persons and organisation(s) for delivering this management plan.

Ecologist or Other Professional Responsible for HMMP PB-B09				
Name or Initials		Carol Edmondson MSc MRSB		
Organisation		Ark Ecology		
Responsibility	Start Date:	Upon start of development	End Date:	TBC
Ark Ecology will be responsible for overseeing the preparation of this Habitat Management and Monitoring Plan (HMMP) and for providing ecological advice on the implementation of habitat establishment and management measures.				
Ark Ecology will also ensure that the landowner or management organisation is informed of any potential constraints related to the presence of protected and/or notable species on the site.				
Statement of Competency				
Ark Ecology brings extensive experience in the ecological consultancy sector, collaborating with a diverse range of clients, including landowners, local authorities, government agencies, and private developers. Our expertise lies in identifying ecological constraints and implementing land management strategies that enhance biodiversity.				

This Habitat Management and Monitoring Plan (HMMP) has been developed by Ecologist Jonathan Pounder, who has twenty-four years of experience in the ecology/ land management field and is a Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Carol Edmondson has quality assured this HMMP and has twelve years' experience in practical ecology survey experience, carrying out protected species and habitat surveys, and producing reports to support planning application. Before this she worked in the Forest of Bowland National Landscape team for nine years as the Hay Time Officer. Working with farmers and landowners designing and implementing habitat restoration including meadow and woodland surveys, and training volunteers to carry out botany and invertebrate surveys.

Landowner or Land Manager PB-B10				
Name or Initials		Peter Bristol		
Organisation		N/A		
Responsibility	Start Date:	Upon start of development	End Date:	TBC
Newlands Nursery staff are experienced horticulturalists with good knowledge of plant health and planting requirements. Their staff will be used to deliver or supervised the planting activity and aftercare as part of the site wide management.				
Statement of Competency				
Newlands Nursery staff are experienced horticulturalists with good knowledge of plant health and planting requirements. Their staff will be used to deliver or supervised the planting activity and aftercare as part of the site wide management.				
Management Organisation(s) Responsible for Implementing the HMMP PB-B11				
Name or Initials		N/A		
Organisation		N/A		
Responsibility	Start Date:	N/A	End Date:	N/A
N/A				
Statement of Competency				
N/A				

LPA or Responsible Body for Reviewing HMMP PB-B12				
Name or Initials		TBC		
Organisation		Ribble Valley Borough Council		
Responsibility	Start Date:	Upon start of development	End Date:	TBC
TBC based on consultation with the LPA.				



## Land Use Summary

### Overview of Baseline Site Use PB-B13

The development site is 0.12Ha in size and located within Newland Nurseries which is approximately 2Km north east of Clitheroe in Lancashire. The site is made up of 0.0773Ha of Modified grassland and 0.0386Ha of Developed land in the form of outdoor plant stores.

### Overview of Proposed Site Use PB-B14

The above habitats will both be lost by the proposed development of 3 new polytunnels to support the nursery – creating 0.1159Ha of developed land.

To mitigate the habitat loss 14x small moderate condition rural trees will be planted in the off-site land – the field immediately adjacent to the development site along the south western field boundary.



## Site Context Photos PB-F03

Please include two overview photographs of the site in its current form here. Include additional photographs in an appendix if needed. Tick if additional photographs are provided in the Appendices

Reference: [Click or tap here to enter text.](#)





## Site Baseline, Environmental Information and Associated Impacts Checklist PB-T01

Consider the Baseline and Environmental Information listed below. These are likely to be appropriate factors informing your proposals and project design. They can provide the reviewer with important contextual information for the management prescriptions provided later in this document. Use your professional judgement to determine which factors are relevant to your specific project.

Please use the check box to indicate which are included in your plan. For any not included, provide brief reasons why the factor is not relevant to your project using your professional judgement. Where this information is provided elsewhere, you can reference existing reports and, or, plans that have informed your decisions. For the templates for each heading see pages 3-20 of the Companion Document.

Baseline and Environmental Information	Prompts for when these may be relevant. This is not an exhaustive list. Use your professional judgement to determine which are required for your HMMP	Check box if included	Document Reference or Reason if not included
<b>Statutory / Non-statutory Designated Sites</b>	Will your proposals lead to direct or indirect effects on designated sites?	<input type="checkbox"/>	No Statutory/Non-statutory Designated Sites will be affected, either directly or indirectly by the development.
<b>Protected and Notable Species</b>	Does the presence or proximity of specific species on or near your site present any constraints or opportunities to project design or management?	<input type="checkbox"/>	No protected or notable species identified on-site or nearby that could pose either a constraint or opportunity to project design or management
<b>Invasive Non-Native Species (INNS)</b>	Are any INNS present onsite that could affect the proposals?	<input type="checkbox"/>	No INNS identified on site.
<b>Biological Records Plan - Sites and Species</b>	Does the presence of designated sites or specific species on or near the site present any constraints or opportunities to proposals?	<input type="checkbox"/>	No Designated Sites or specific species have been identified as constraints/opportunities to the proposals.
<b>Baseline Habitats Survey</b>	Is this current and important HMMP information located in a separate document? If so, provide details on where it is located.	<input checked="" type="checkbox"/>	Baseline habitat survey was compiled as part of the BNG Statutory Metric Spreadsheet (Appendix A)
<b>Public Access</b>	Has public access, or proposals to allow public access, influenced your management prescriptions? If so, how?	<input type="checkbox"/>	No public access within the development site
<b>Climate</b>	Are local climate conditions and, or, climate change likely to impact the target habitat retention, creation or enhancement?	<input type="checkbox"/>	No likely impacts on the habitat creation from changes in climate condition.
<b>Geology and Topography</b>	Any geological or topographical constraints or opportunities?	<input type="checkbox"/>	No impacts from the geology and/ or topography.
<b>Agricultural Land Status</b>	Does the site support any land favourable for agricultural management? Could this affect the proposals?	<input type="checkbox"/>	The site is classified as Enclosed Agriculture in the National Historic Landscape Characterisation. The site in the past has been used for horticultural purposes.
<b>Soils and Substrates</b>	Do soils and substrates present any constraints or opportunities?	<input type="checkbox"/>	The underlying soil conditions are suitable to support the planned work of the HMMP, with no serious constraints evident; some localised enrichment impacting on the soil conditions and
<b>Contaminated Land</b>	If there is any contaminated land, will this present any constraints?	<input type="checkbox"/>	No contaminated land present
<b>Hydrology and Drainage</b>	Will the site hydrology present any constraints or opportunities?	<input type="checkbox"/>	No constraints and opportunities in relation to the hydrology/ drainage on site.
<b>Flood Risk Zones</b>	Is the site within a flood risk zone? Will that present any site management risks?	<input type="checkbox"/>	No issues on site relating to flooding issues.
<b>Landscape Character and Designations</b>	Does the landscape character of the site present any constraints or opportunities?	<input checked="" type="checkbox"/>	The site is located in NCA 33: Bowland Fringe and Pendle Hill The proposed development is not impacted by the landscape character, the site proposals are in keeping with the NCA requirements.
<b>Historic Land Use</b>	Does the historic land use present any constraints or opportunities?	<input type="checkbox"/>	No impacts from historic land use.
<b>Historic Environment and Earth Heritage</b>	Are there any historic environment designations? What are the implications for your plan?	<input type="checkbox"/>	No impacts from historic environment designations.
<b>Other – please specify</b>	Any other details - for example underground services or overhead powerlines, which may impact habitat management.	<input type="checkbox"/>	No overground/ underground services that could impact on the habitat management work.

## Baseline and Environmental Information

See the Companion Document pages 3-20 for the baseline and environmental information insert forms.

The HMMPT Companion Document contains a template for each environmental information category. Use these templates to set out how you have considered relevant constraints and opportunities as part of the design process, to promote the success of this management plan. Copy in the relevant templates from the Companion Document for each environmental information category to be included. Optional: Include these sheets at the end of your plan or as an appendix, referencing the location in Table PB-T01 above.

## 2. Planned Management Activities

Provide the site-wide aims and objectives. These should consider the Project Background information section outlined above as well as the outcomes of the Metric.

### Management Plan Aims and Objectives PM-B01

The legal obligation for the land owner to manage the habitat for a 30-year period will begin once all Biodiversity Net Gain (BNG) habitat enhancement works have been completed. The anticipated start date of proposed works is to be confirmed.

The management objectives outline the overall ecological goals and anticipated outcomes of the project. These objectives will be accomplished by adhering to the detailed management prescriptions set forth in this plan. The management prescriptions should remain flexible and can be adjusted as needed throughout the project's duration to ensure the objectives are met.

These objectives are closely linked to the habitat descriptions and condition assessments detailed in the BNG Statutory Metric spreadsheet, which support the Biodiversity Unit value of the site. The management objectives represent the tangible outcomes that will be monitored in accordance with the monitoring plan.

In line with the BNG Statutory Metric the On-site Habitat Creation and Off-site Habitat creation will be established in the first year of the development, with maintenance and management work on the off-site trees commencing after planting.

In Year 2, all establishment management of the site will have been completed, with post-establishment management and monitoring to then be undertaken in order to meet the following targets:

- The small Off-site rural (14 number) trees are to be on target moderate condition assessment by Year 27.

By Year 10, the site is expected to have largely achieved the targeted habitat condition score. Long-term management will commence after initial establishment, continuing for a total of 30 years.

## Principles Informed by Design Stage

The project's BNG target(s) should be set and documented early in the design process. Outline how background and baseline information influenced key design principles for the project from an early stage. This can provide useful context for the proposed retention, creation and enhancement measures.

### Design Principles Informed by Baseline Information PM-B02

The habitat enhancements will be delivered in line with the development timescale, and undertaken within the first appropriate tree planting "season" using the appropriate equipment and techniques that will give the work the best opportunity for establishment.

Habitat management work will be informed by the establish monitoring and BNG monitoring processes. They will be carried out in environmentally sensitive manners using best practice methods. All materials will be from locally sourced suppliers.



## Habitat and Condition Targets PM-T01

This table presents a summary record of what you have agreed to deliver based on the biodiversity metric. These habitat condition targets form the basis of what the management plan is setting out to achieve. Include the relevant 'Area', 'Hedgerow', and 'Watercourse' types to be implemented and managed throughout the period of 30 years or more.

Baseline Habitat Type	Target Habitat Type	Parcel / Feature Refs	Baseline Condition	Targeted Condition	Years to Targeted Condition	Condition Assessment Targets	Comments
Rural tree	Rural tree	Offsite/ blue line	N/A – newly created habitat	Moderate	Year 27	Newly planted small trees targeting Moderate condition by achieving criteria A, B, D and F.	

**Habitat and Condition Targets Further Comments**

## Creation, Enhancement and Management Targets and Prescriptions

### Individual Trees - Creation, Enhancement and Management Summary (UT-T01)

Provide details of the approach to delivering each of the targeted condition criteria and habitat. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 9. Individual Trees

Target Habitat:		14x Small Rural tree, moderate condition				
Condition Assessment Criteria	Targeted	Relevant Features	Creation Approach	Enhancement Approach	Management Approach	
A	The tree is a native species (or more than 70% within the block are native species).	Yes		Select appropriate native tree species from a locally sourced supply		Trees to be from a locally sourced supplier, with the hole for accepting the tree excavated in advance of the trees to conform to the root size, including some manure at the base.  Trees to be supported and protected appropriate to the tree size (tree guard or tree tube, with support from cane or tree stake(s) in line with the planting specification.
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes		Manage the individual tree species to develop a well spread canopy in keeping with the selected tree species.		Monitor canopy development with appropriate selective pruning if required.  Where possible allow the canopy to develop naturally, deadwood should be retained if possible/ safe.
C	The tree is mature (or more than 50% within the block are mature).					
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes		Manage the individual trees to be free from un-natural damage.  Where damage occurs the source is identified and immediate action taken to prevent further damage.		Monitor tree condition to detect any negative impacts.  Where negative impacts are detected, identify the source and undertake remedial action.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.					
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes		Manage the individual tree species to develop a well spread canopy in keeping with the selected tree species.		Monitor canopy development with appropriate selective pruning if required.  Where possible allow the canopy to develop naturally, deadwood should be retained if possible/ safe.

**Additional Management Prescriptions (UT-B01)**

Tree species to be source from local supplier and planted with appropriate support and protection – advised standard or heavy standard trees to be used with support post and tie.

Use of mulch or mulch mats should be considered



### Individual Trees - Creation, Enhancement and Management Detailed Methods (UT-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant Features	Timing	Prescriptions
Planting of 14x Rural Small Tree	On-site	October to March each year	Trees to be pit planted, with the excavated holes also having a small amount of manure in the base of the pit. Trees to be planted and secured with stake and tie
Maintenance of 14x Rural Small Tree	On-site	March to August each year	Planted trees to be supplementary watered during extended periods of dry weather
		July/ August each year	Planted trees to be hand weeded twice a year in years 1 and 2 of establishment; before reducing to once a year in years 3 to 5, then continuing until its judged it is no longer needed

### Individual Trees Species Lists (UT-T03)

Provide a detailed species list for the habitat to be created

Common Name	Scientific Name	Abundance / %	Comments
Common Oak	Quercus robur	16	
Mountain Ash	Sorbus aucuparia	28	
Wild Cherry	Prunus avium	28	
Silver Birch	Betula pendula	28	

## Other Supporting Information

### Supporting Information (UT-B02)

Please use this space to provide any additional information where relevant.



## Habitat Creation and Management – Risk Register and Remedial Measures PM-T02

Provide a site-wide risk register associated with creating, enhancing and, or, managing each habitat type. Consider your approach to delivering the BNG targets in case the management prescriptions do not deliver as expected.

This is a pre-emptive list. The list of potential risks should be as comprehensive as possible to provide confidence in the delivery of the management plan objectives. Complete each habitat's management targets and prescriptions first, then consider the likelihood of the risk occurring and what impacts it may have if it was to occur. Consider how these may feed back into monitoring requirements.

Risk Identification Date	Habitat Type	Risk Factor	Trigger for Action	Remedial Measure
21/11/24	Individual trees	Native stock	The tree is a native species (or more than 70% within the block are native species).	Remove any non-native tree species on site
21/11/24	Individual trees	Tree canopy in good health	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Monitor canopy development with appropriate selective pruning if required. Where possible allow the canopy to develop naturally, deadwood should be retained if possible/ safe.
21/11/24	Individual trees	Impact on tree condition	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Monitor tree condition to detect any negative impacts. Where negative impacts are detected, identify the source and undertake remedial action.
21/11/24	Individual trees	Tree canopy in good health	More than 20% of the tree canopy area is oversailing vegetation beneath.	Monitor canopy development with appropriate selective pruning if required. Where possible allow the canopy to develop naturally, deadwood should be retained if possible/ safe.
21/11/24	Individual trees	New pest/ disease	Detection of impact on trees	Seek specialist advice and carry out the necessary remedial works

### 3. Monitoring Schedule

To deliver BNG, a robust strategy is critical to monitor successes and challenges. Routine monitoring informs progress and facilitates the required management plan updates at set intervals.

#### Monitoring Strategy

**Provide details of the monitoring strategy to encourage successful implementation of the management plan (MS-B01)**

The site will undergo varying levels of monitoring from its establishment and throughout its long-term management. In the first 1-5 years, ecologists will conduct annual reviews to assess the progress of the proposed habitat's development. During this time, key observations will determine if the habitats are successfully establishing and if any replacement planting or reseedling is required. This will be in addition to any site walkover/ inspections during maintenance and "as and when" visits carried out by the land manager to the site to facilitate/ deliver the management work – if anything is identified as an issue it should be reported and rectified immediately rather than left to the next ecologist visit.

Evidence of management inspections should be retained and included in the HMMP via the ecologist.

During years 5-10, management of the site will shift to post-establishment management and maintenance

By the end of this period, the grassland should have reached its target condition, and the review in year 10 will evaluate the success of habitat management efforts, recommending any necessary remedial actions if the targets have not been met.

During years 11-30, monitoring will take place every five years, starting in year 15. The focus will be on assessing whether long-term management practices are maintaining the habitat at the target condition scores. During this period, adaptive management strategies will be reviewed to explore opportunities for further habitat enhancements.

Year 27 are important as the planted trees should have reached their condition assessment – the ecologist will have to visit site at the earliest point in time/ season to establish if the condition assessment criteria has been met (to confirm establishment), develop a remedial plan that can then be implemented and resurveyed (if required).

#### Monitoring Methods and Intervals MS-T01

Provide details of the methods you will use to adequately monitor the progress towards the targets stated in the management plan and as agreed with the Local Planning Authority.

Monitoring methods and frequency need to be considered according to habitat type. The text below is only for illustrative purposes. Plan according to your own project and habitat requirements.

Habitat Type	Monitoring Methods	Monitoring Interval and Timing
Rural Trees	Undertake visual inspection into the condition of the habitats, if they have met the condition assessment criteria or continue to meet the condition assessment criteria and make any recommendations for adaptive management works.	Monitoring to be undertaken on this habitat in years 1, 2, 3, 4, 5 and 10. Following on with 5-year interval visits in years 15, 20, 25 and 30.  An establishment inspection should be undertaken in year 27  Surveys to be completed between May and August



## Monitoring Reports

Following completion of habitat creation and initial enhancement works, prepare for your monitoring report for the Local Planning Authority or Responsible Body. You should monitor each habitat type comprising the BNG project. Provide sufficient detail for the reviewing authority to assess the progress. The 'Monitoring Report Template' can help you do this. The requirements and regularity with which the monitoring reports are required are at the discretion of the LPA or Responsible Body. Prepare the monitoring requirements below.

### Monitoring Report Schedule MS-T02

Provide details of the person or organisation that will be responsible for submitting the monitoring reports. Also state the responsible organisation for receiving and reviewing the reports.

Organisation Responsible for Submitting the Monitoring Reports	Organisation Receiving and Responsible for Reviewing Reports

Provide details of when the monitoring surveys and reports will be undertaken and submitted. You can extend the table and adjust according to your required schedule.

Project Year	Month Report to be Submitted	Month Management Plan to be reviewed	Comments
Y1	September	September or October	Report on results of the establishment of the various habitats created.
Y2	September	September or October	Report on habitat establishment and management of created habitats.
Y3	September	September or October	Report on habitat establishment and management of created habitats.
Y4	September	September or October	Report on habitat establishment and management of created habitats.
Y5	September	September or October	Report on habitat establishment and management of created habitats.
Y10	September	September or October	Report on habitat establishment and management of created habitats.
Y15	September	September or October	Report on results of the establishment of the various habitats created.
Y20	September	September or October	Report on habitat establishment and management of created habitats.
Y25	September	September or October	Report on habitat establishment and management of created habitats.

Y27	September	September or October	Report on habitat establishment and management of created habitats. Confirm condition assessment of off-site rural trees.
Y30	September	September or October	Report final condition of all the created habitats including exit planning to safeguard habitats in the future.



## Adaptive Management

### Summary of Adaptive Management Approaches (MS-B02)

Adaptive management is a systematic approach to natural resource management that involves monitoring and evaluating the effectiveness of management actions then adjusting as necessary to improve outcomes over time. It is an iterative process in which management actions are followed by targeted monitoring outcomes. These, in turn, inform the ongoing management and responds to changes on the site that are potentially impacting on the relevant condition assessments or landscape changes.

Monitoring results inform necessary management changes to promote achieving BNG targets stated in the statutory biodiversity metric and HMMP. The monitoring can pick up any unexpected, external influences. Some examples are dealing with a new plant disease, an invasive species being found on the site, climate change, one off events (flood or fire) or changes to site access.

Observations and notes from day-to-day management are important for delivering adaptive management. Records from management work implementation should also be collected and fed into the subsequent monitoring reports.

Regular robust monitoring, and reporting to the responsible authority, should identify potential issues early on and allow time to develop suitable responses. If the BNG objectives are affected by external factors, it is important to inform the responsible authority as soon as possible, include information on the issues and then agree any changes to the management prescriptions and targets; recording the outcomes in the appropriate report.

# 4. Monitoring report tables

## Monitoring Plan MT-F01

Use this plan to present the results of monitoring surveys if required. This can be presented as a single, side wite masterplan or can be copied into each of the habitat sheets below to provide a separate plan showing the locations of the specific habitat to be delivered onsite.





**Individual Trees - Progress Towards Habitat and Condition Targets** (MB-T01)

Condition Assessment Criteria		Targeted?	Relevant parcels	Year:	Management Activity Updates
				Target met?	
Target Habitat:		N/A		Yes / No	Provide details of the actions relevant to this habitat or condition criteria that must be implemented from this monitoring period onwards.  What, if any, adaptive management changes will be implemented to continue delivering targets.
A	The tree is a native species (or more than 70% within the block are native species).				
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).				
C	The tree is mature (or more than 50% within the block are mature).				
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.				
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.				
F	More than 20% of the tree canopy area is oversailing vegetation beneath.				

## Individual Trees

## General Progress

### Comments on progress towards project goals (MB-B01)

Empty text area for comments on progress towards project goals.

### Actions required in next management period (MB-B02)

Empty text area for actions required in next management period.