

# Habitat Management and Monitoring Plan

Site Name:	Proposed free-standing solar panel, Wiswell Manor
Date:	14/03/2025
Version:	Final v1



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Architects Ltd.

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APPENDIX     Habitat Management and Monitoring Plan Detail

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
FINAL v1	For Planning Determination	Dominic Rigby MCIEEM  14/03/2025	

**Dominic Rigby MCIEEM**  
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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	
Project type	On-Site BNG
Development Name and Address	Land at Rear of Wiswell Manor, Pendleton Road, Wiswell, BB7 9BZ
Author Organisation	Dominic Rigby CCNW
Landowner	D. Bovington
Land Manager	D. Bovington
Responsible person/organisation for creating or enhancing the habitat	D. Bovington
Period covered by this management plan	Years 1-30, starting from the first planting season following installation of the development
Planning authority	Ribble Valley Borough Council
Planning reference (if applicable)	3/2024/0826
Central OS grid reference	SD 74996 38160
Metric revision/title	Statutory biodiversity metric
Are any Irreplaceable Habitats present onsite	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

## Summary of Management Plan

### Habitats to be Retained, Created and Enhanced

The project site comprised of a grazed, improved grassland and introduced shrubs at the rear of Wiswell Manor. This parcel at the rear of the grazed field was proposed to house several domestic solar panels and a small building for the workings. There were no irreplaceable habitats.

BNG was to be accomplished by uplifting the condition of the remaining grassland compartment within the project red line, adopting a change in management through cessation of spring/summer grazing within the newly fenced off redline area to create a medium distinctiveness grassland and the creation of a small orchard.

### Timescales for Actions

The created grasslands would take between 1 and 5 years to establish, the orchard 20 and the neutral grasslands 15 years to reach target condition.

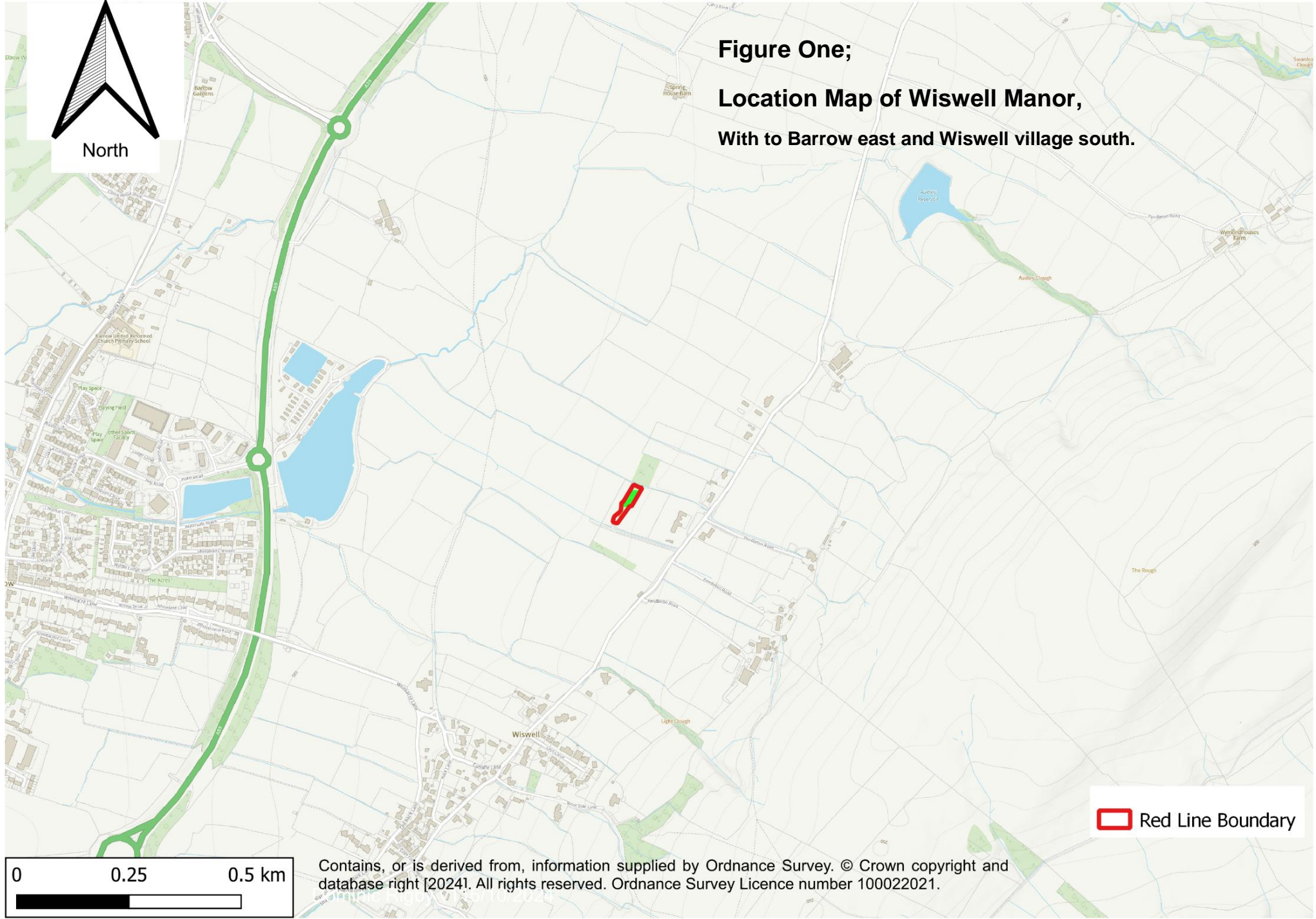
### Monitoring Requirements

Habitat classification and condition assessments will be undertaken regularly between 1 and 5 years and then every five years from 10 to 30 years, dependent of the specific habitat type.

### Funding

Landowner





Phasing strategy

Will the proposed work measures be delivered in phases?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
<p>All works will proceed from the first planting season following installation of the development. That will be referred to as Year One.</p>	

Roles and Responsibilities

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

Ecologist or Other Professional Responsible for HMMP				
Name or Initials		Dominic Rigby		
Organisation		CCNW		
Responsibility	Start Date:	2025	End Date:	2065
<p>DR designed the post-development plan and has been contracted by the landowner to oversee ecological aspects of the development</p>				
Statement of Competency				
<p>DR is an ecologists with 35 years’ experience combining both reserve management experience, (15 years) local authority experience (10 years) and consultancy/BNG experience (10 years). He is a full member of CIEEM.</p>				

Landowner or Land Manager	
Name or Initials	D. Bovington
Organisation	Landowner
<p>Liaison throughout the design process.</p>	
Management Organisation(s) Responsible for Implementing the HMMP	
Organisation	D. Bovington (landowner) for BNG
LPA or Responsible Body for Reviewing HMMP	
Name or Initials	c/o
Organisation	Ribble Valley Borough Council



Land Use Summary

Overview of Baseline Site Use

Grassland: modified - The site was a relatively homogenous improved grassland, seasonally grazed by sheep. Rye grass and fine-leaved (commercial red -type) fescues occurred across most of the site, with white clover and creeping buttercup nearly constant. A small pocket of introduced shrubs.

Regarding protected species, adjacent scrub and woodland habitats would host a suite of common nesting birds and desk-study/habitat suitability assessments suggested hedgehogs may be on site.

Overview of Proposed Site Use

There was a loss of 0.51 low-distinctiveness habitat units to solar panels and related battery storage shed, this was more than balanced by the post-intervention management of the remaining grassland within the red-line (on-site) and the creation of a 343m<sup>2</sup> traditional orchard (approximately fruit 25 trees).

Site Context Photos

Modified grassland



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
Statutory / Non-statutory Designated Sites	Will your proposals lead to direct or indirect effects on designated sites?	<input type="checkbox"/>	No
Protected and Notable Species	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
Invasive Non-Native Species (INNS)	Are any INNS present onsite that could affect the proposals?	<input type="checkbox"/>	No
Biological Records Plan - Sites and Species	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
Baseline Habitats Survey	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"/>	Wiswell Manor Solar Draft BNG Plan 3/2024/0826 Wiswell Manor
Public Access	Has public access, or proposals to allow public access, influenced your management prescriptions? If so, how?	<input type="checkbox"/>	No
Climate	Are local climate conditions and, or, climate change likely to impact the target habitat retention, creation or enhancement?	<input type="checkbox"/>	No
Geology and Topography	Any geological or topographical constraints or opportunities?	<input type="checkbox"/>	No
Agricultural Land Status	Does the site support any land favourable for agricultural management? Could this affect the proposals?	<input type="checkbox"/>	The site was dominated by a sown grassland that was occasionally sheep grazed.
Soils and Substrates	Do soils and substrates present any constraints or opportunities?	<input type="checkbox"/>	No
Contaminated Land	If there is any contaminated land, will this present any constraints?	<input type="checkbox"/>	None
Hydrology and Drainage	Will the site hydrology present any constraints or opportunities?	<input type="checkbox"/>	No
Flood Risk Zones	Is the site within a flood risk zone? Will that present any site management risks?	<input type="checkbox"/>	No
Landscape Character and Designations	Does the landscape character of the site present any constraints or opportunities?	<input type="checkbox"/>	No
Historic Land Use	Does the historic land use present any constraints or opportunities?	<input type="checkbox"/>	No
Historic Environment and Earth Heritage	Are there any historic environment designations? What are the implications for your plan?	<input type="checkbox"/>	No

## 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

The current landscape parcel was dominated by good-condition modified grassland and was to be re-modelled to create a mosaic of neutral grassland ,orchard and modified grassland, with poor condition moderate grassland under the solar panels.

## 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

Relaxing the cutting/grazing regime of the retained grassland would maintain the broad habitat while increasing its distinctiveness. The creation of an orchard would complement the wider managed garden area around Wiswell Manor.



Habitat and Condition Targets

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	Presumptions leading to Condition Assessment Targets	Comments
Modified Grassland	Modified Grassland	5-9, 21 (Parcel ref figure on next page)	Good	Poor	15	Lost and recreated but unlikely meet Criteria A because of shading under solar panels.	More detail in Appendix
Modified Grassland	Modified Grassland	1, 10	Good	N/A	N/A	Retained, maintained by monthly August and September cut/clear only	
Introduced shrub	Other neutral grassland	3	N/A	Moderate	5	Targeted to reach all CA criteria except E (10 or more spp. per m²)	More detail in Appendix
Modified Grassland	Traditional Orchard	11	Good	Moderate	20	Likely to fail A, B, G therefore “moderate”.	More detail in Appendix
Modified Grassland	Other neutral grassland	4,22	Good	Good	15	Likely to reach all criteria with prescribed mowing regime	More details in Appendix

Habitat and Condition Targets Further Comments

Ornamental hedge has been omitted.

Habitat Retention

Provide a concise description of the habitats that are to be retained in their baseline condition. Habitats being retained may still require ongoing measures to maintain their baseline condition.

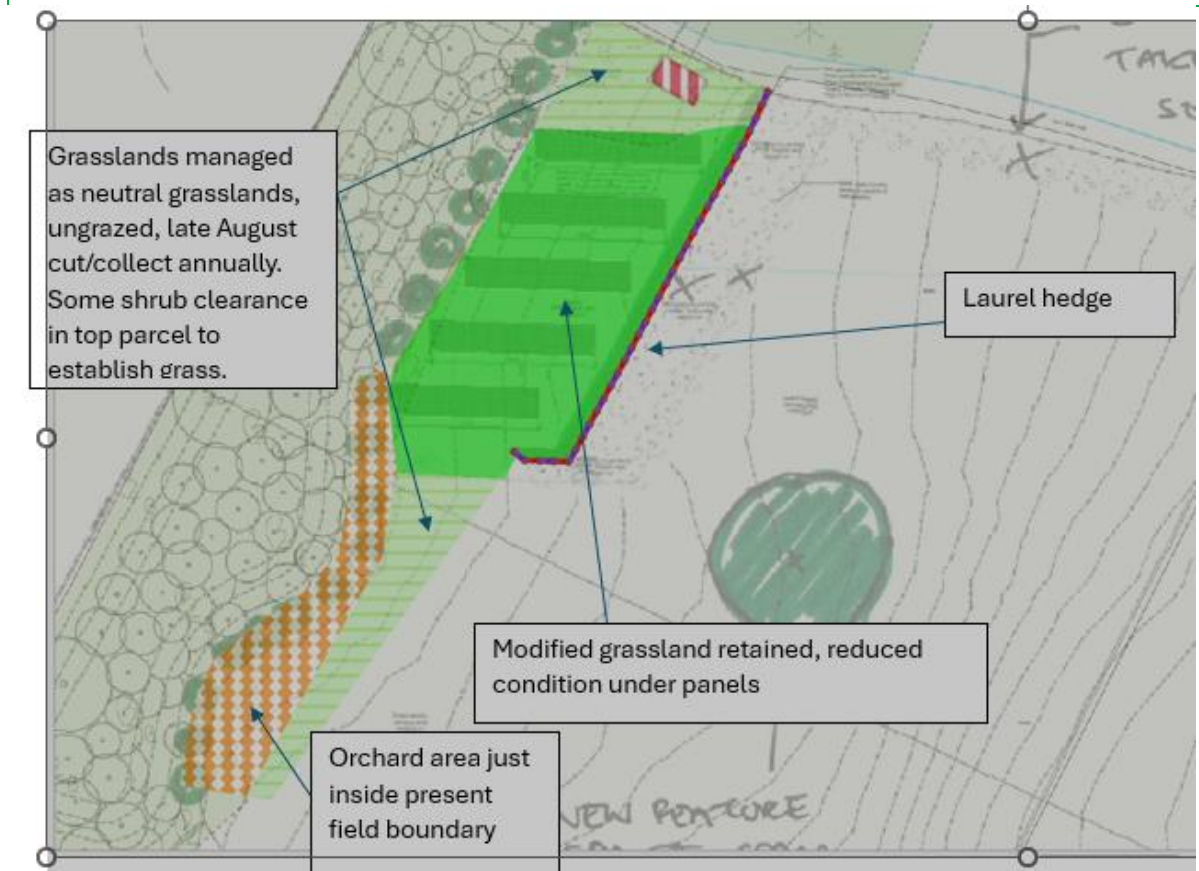
Measures to be Implemented to Protect Retained Habitats

Parcels 1 and 10 to be retained, as good condition modified grassland, as outlined in Appendix Section 7.1



Specification of Protective Measures to be Used

Any grassland retained or enhanced south of the solar panels area will be protected by appropriate fence



### 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

(Statutory Metric) Condition assessment sheets, photographs, species lists will form the reference points

#### 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.

Habitat Type	Monitoring Methods	Monitoring Interval and Timing
Other neutral grassland	Undertake quadrat sampling to identify the habitat type that is establishing and then number of species per m <sup>2</sup> .  Collect a botanical species list across grassland to check against target species list	Annually from years 1-5,7, 10 then every 5 years.  Surveys to be completed between May and August
Modified Grassland	Undertake quadrat sampling to identify the habitat type establishing and number of species per m <sup>2</sup> .  Collect a botanical species list across grassland to check against target species list	Annually from years 1-5, then every 5 years.  Surveys to be completed between May and August
Orchard	Grassland: Undertake quadrat sampling to identify the habitat type that is establishing and then number of species per m <sup>2</sup> . Collect a botanical species list across grassland to check against target species list  Trees: Form check, disease check	Grassland survey and Tree checks: Annually from years 1-5,7,10 then every 5 years. Grassland/tree disease surveys to be completed between May and August  Form check: Autumn (to inform pruning)



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

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
Landowner: D. Bovington	Ribble Valley Borough Council

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
See MS-T01 above, for detail			
1	October		
2	October		
3	October	October	
4	October		
5	October	October	
7	October		
10	October	October	
15/20/25/30	October		

Adaptive Management

Summary of Adaptive Management Approaches

- Grassland: A combination of seeding and wildflower turf will be used if progress through mowing/clearing not as targeted. The relative success of each would inform contingency for the other.
- Orchard: A combination of seeding and wildflower turf will be used, if species per m<sup>2</sup> not reaching target for other neutral grassland. Replacement of failed stock throughout project, changing species-variety groups if necessary.

Establishment, Management and Maintenance for each habitat type is provided in an Appendix below.

APPENDIX

7. Habitat Management and Monitoring Plan

To reach the target habitat types and conditions the red line boundary would require fencing off. This would separate/isolate it from the grazed meadow and divide it from the bund, which could be considered as part of the garden curtilage.

7.1 Modified Grassland (Good condition) enhanced to Other Neutral Grassland (Moderate)

The retained grassland immediately SW of the solar installation’s modified grasslands parcel would be enhanced to other neutral grassland with a minimum of “moderate” condition. Recruitment of grassland species from the abutting bund was likely, alongside a mowing regime that would both reduce nutrient load and provide micro bare-ground patches for seed germination.

Years One-Three:

Red line area fenced off. Grazing to cease November to July inclusive. April cut/collect. No mowing until August followed, by monthly mows/collect resuming monthly until/including September. No more mowing after September until the following April.

**Year Three:** Monitoring. Transects July. Prior to first cut. Review

Years Four-Five:

As above aftermath sheep grazing could be introduced to replace the post-August cut. If aftermath grazing was introduced there would be no necessity for an April cut the following spring.

July Year Five:

Review of progress/condition of the proposed neutral grassland parcel. Revisit management if necessary to maintain/reach moderate condition.

Years Five onwards:

Continuation of Yr4-5 management unless prescribed otherwise in Year Five review.

This management should enable the proposed parcel to achieve “other neutral grassland” “Moderate” condition within 15 years. “Good” condition may be achievable, but criteria F “There are 10 or more vascular plant species per m<sup>2</sup> present, including forbs that are characteristic of the habitat type” may not be met, hence “Moderate” target.

Years Seven, Ten, Fifteen

Monitoring against Condition Assessment criteria for medium distinctiveness grasslands, with management reviews to meet objective of other neutral grassland, moderate condition by Year 15.

*Yrs15-30 Management to continue as “Yrs 5 onwards” to maintain or improve condition by Year 30.*

7.2 Traditional Orchard

Traditional orchards were classed as grassland habitats in the Defra BNG Metric, with a standard time to target condition of 20 years.

Year One:

Planting of bare root fruit stock at 4m centres in mulched pits. Tree protection cones and stakes/ties and mulch around base.

Summer watering regime, late autumn form pruning in centres of apple/pairs. *Prunus* types limited to essential pruning and in summer only.

Autumn cut/collect of grass. Aftermath grazing can be introduced if the trees suitably protected from sheep and poaching does not occur.

Years Two-Three:

Repeat of Year One maintenance (winter mulching/autumn form pruning to minimise cross branches in tree centres) and replacement of failed trees and poor specimens.

Autumn grassland cut/collect

Monitor.

Years Four-Five:

Continuation of replacement of dead stock; Cessation of watering from Year Four; mulching/pruning to continue.

Monitor, including grassland surveying (should be tending away from modified grassland and taking on a more neutral grassland character).

Years Six-Fifteen:

Replacement of any failed stock. Tree protection cones and stakes and mulch around base, summer watering (*new stock only*). Winter pruning as necessary for tree health/form. Check and change of any ties/cones as necessary.

Grassland maintenance to continue. Monitoring every three years.

Years Fifteen -Twenty

Replacement of any failed stock. Tree protection cones and stakes and mulch around base, summer watering (*new stock only, and for first three years only*). Winter pruning as necessary (see above).

Removal of all remaining stakes, ties and cones on all established stock (Year 15).

*Yrs20-30 Management to continue to maintain or improve condition by Year 30.*



7.3 Retained Modified Grassland

The grassland under and around the solar panels will be maintained as modified grassland. It is recognised that the grass retained beneath the panels would struggle to uplift from poor grassland. Thus, that condition is assumed. The relaxation of mowing prior to July was not thought to compromise the efficiency of the solar panels, given the current composition of the sward (no coarse grasses).

Years One-Five:

The mowing regime would be relaxed: one spring cut/collect in April. “No Mow May” and “Let it Bloom, June” would be followed, with monthly mows/collect resuming monthly late July to September. No more mowing after September until the following April.

July Year Five:

Review of condition of the modified grassland parcel. Revisit management if necessary to maintain/reach good condition.

Years Five onwards:

Continuation of Yr4-5 management unless prescribed otherwise in Year Five review.

7.4 Introduced Shrub to Other Neutral Grassland (Moderate)

A 136m<sup>2</sup> parcel of Introduced Shrub will be removed and a battery storage building built and this will be surrounded by a created neutral grassland. The shrubs currently in place are growing among a neutral grassland, so establishment should be straightforward.

Year One:

Careful removal of existing shrubs leaving as much of the grassland intact.

August/September distribution of cut seeded stems of grasses from the established bund adjacent.

Year Two:

No mowing until August. Thresh arisings over any gaps in turf where shrubs were moved or where the ground was poached by construction activities.

Years Three Onwards:

See 7.1 Years Four/Five onwards

Monitoring as 7.1.

7.5 Ornamental Hedge

A 52-length Portuguese laurel hedge is proposed to be planted on the eastern edge of the site to screen the panels and battery room from the residential property.