

**MILL RYTHER HOLIDAY VILLAGE
HAYLING ISLAND, HAMPSHIRE**

**LANDSCAPE AND ECOLOGICAL
MANAGEMENT PLAN**

A Report to: Away Resorts Ltd

Report No: RT-MME-156532-03

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development”.

Report Version	Date	Completed by:	Checked and Approved by:
Final	27/01/2022	Chris Walsh (Principal Consultant), Henry Crabb (Biodiversity Project Officer) and Asija Zeidaks (Ecological Project Officer)	Tim Hextell MCIEEM (Principal Technical Ecological Consultant)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client’s brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In November 2021, A & M Architectural Partnership LLP on behalf of Away Resorts Ltd commissioned Middlemarch Environmental Ltd to produce a Landscape and Ecological Management Plan (LEMP) in order to ensure the long-term biodiversity value of a site associated with the proposed redevelopment of Mill Rythe Holiday Village on Hayling Island in Hampshire. This management plan is required to discharge Condition 6 of the draft approval notice, which states that:

'No development shall commence until a detailed Landscape and Ecological Management Plan (LEMP) has been submitted to and approved in writing by the Local Planning Authority. All LEMP measures shall be in accordance with those detailed within the Habitats Regulations Assessment (Middlemarch, March 2021) and the Ecological Mitigation Strategy (Middlemarch, November 2020) unless otherwise agreed in writing by the Local Planning Authority. The LEMP shall include (but not necessarily be restricted to): details of all habitat and species mitigation measures; costed management plan for the Solent Wader & Brent Goose site H43/Mill Rythe Holiday Park Site of Importance to Nature Conservation (SINC); details of the location, composition and ongoing management of all compensatory or enhancement habitat; location, type and number of all bat/bird boxes and other ecological enhancements; details of lighting. All ecological compensation/enhancement measures shall be installed/implemented in accordance with ecologist's instructions and retained in a location and condition suited to their intended function.'

Reason: *To protect and enhance biodiversity in accordance with the Conservation Regulations 2017, the Wildlife & Countryside Act 1981 (as amended), the NERC Act 2006, NPPF and Policy CS 11 of the Havant Borough Core Strategy March 2011.'*

Middlemarch Environmental Ltd previously completed the following assessments at the site in 2016 and 2017 to inform a planning application (Ref: APP/16/01237) associated with the refurbishment of the site:

- Preliminary Ecological Appraisal (Report RT-MME-123420-01);
- Preliminary Roost Assessment (Report RT-MME-123420-02); and,
- Endoscope Survey (Report RT-MME-124714-Rev A);

Permission for the development was granted by Havant Borough Council in May 2017 (Ref: APP/16/01237). Middlemarch Environmental Ltd subsequently prepared a Construction Ecological Management Plan (CEcMP, Report RT-MME-125561-01) and a Landscape and Ecological Management Plan (LEMP, Report RT-MME-125561-02 Rev B) in order to discharge two conditions of the planning permission.

It is understood that a new planning application (Ref: APP/20/01127) was submitted to Havant Borough Council in November 2020 to seek to vary the development commenced under APP/16/01237. The proposal relates to three separate red-line areas within the site, although the amendments were submitted under one application and should be viewed as a variation of the existing permission.

The following updated ecological surveys were completed in 2020 to support the new planning application:

- Preliminary Ecological Appraisal (Report RT-MME-153231-01);
- Reptile Survey (Report RT-MME-153231-02);
- Ecological Mitigation Strategy (Report RT-MME-153231-03);
- Shadow Habitat Regulations Assessment: Stage 1 Screening (Report RT-MME-153231-04)
- Report to Inform Habitats Regulations Assessment: Stage 1 Screening and Stage 2 Appropriate Assessment (Report RT-MME-153231-05);
- Winter Bird Surveys (Report RT-MME-153231-06); and,
- Bat Surveys (Report RT-MME-153320).

In November 2021, Middlemarch Environmental Ltd carried out an Ecological Walkover Assessment (Report RT-MME-156532-01), to verify previous survey findings and inform the CEcMP (Report RT-MME-156532-02) and LEMP, to be submitted in support of the new planning application.

1.2 SCOPE OF THE MANAGEMENT PLAN

This LEMP is designed to provide information regarding the long term management of landscape and ecological habitat features to be retained and created on site. It covers a period of 10 years, and contains the following information:

- Chapter 2: Existing Ecology
- Chapter 3: LEMP Context
- Chapter 4: Landscape and Ecological Management Proposals
- Chapter 5: Implementation, Monitoring and Review
- Chapter 6: Drawings

The LEMP is a live document and may therefore be subject to review based on the findings of monitoring of the success of initial management. It is anticipated that at the end of the period covered by this plan a new LEMP will be compiled based on the findings of monitoring and in accordance with the best practice principles. As this is a strategic LEMP it is anticipated that detailed plans for each phase of the development will be provided with each reserved matters application.

1.3 SITE DESCRIPTION

The site comprises an irregular parcel of land approximately 13 ha in size, located on the eastern coast of Hayling Island, centred at National Grid Reference SU 7292 0061. The site effectively divides into two discrete areas. The western half of the site is dominated by the existing Mill Rythe Holiday Village, encompassing a number of self-catering accommodation units and associated leisure facilities. At the time of the survey, the Mill Rythe Holiday Complex included approximately 50 buildings, tennis courts, structured play areas, bowling green, swimming pool, boating lake, car parking, access roads and associated hard and soft landscaping, the latter including extensive areas of formal mown grassland. The eastern half of the site was dominated by a former pitch and putt golf course of just over 2.5 ha in extent which is no longer in use and has developed a ranker sward with scattered blocks of scrub and tall ruderal vegetation. In the north-east corner of the former pitch and putt course is a large triangular lake.

Bordering the site to the north and east are a range of intertidal habitats separated from the surveyed areas by sea defences frequently occupied by dense scrub. To the south is Tournerbury Golf Course and to the west are a series of medium-scale fields occupied by rough grazed pasture and arable crops delineated by well-timbered boundaries.

The site is adjacent to a number of statutory designated sites including Chichester and Langstone Harbours Ramsar wetland, Site of Special Scientific Interest and Special Protection Area and Solent Maritime Special Area of Conservation. These sites form large estuarine systems comprising habitats such as mud and sand flats and salt meadows.

1.4 DESCRIPTION OF DEVELOPMENT

Planning permission has been granted for the following:

Application for full planning permission, pursuant to APP/16/01237, for the redevelopment of the holiday site including the demolition of redundant chalets, use of land for the siting of 112 holiday caravans with areas of open recreational space, cease the use of the land for pitch and putt purposes and retain the remaining pitch and putt area as a managed wildlife area including the provision of an ecology bund & ditch, landscaping, the siting of three bird hides with bat roost in their roof spaces and a mown 'circular wildlife walkway'.

1.5 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Mill Rythe Holiday Village – Existing Site Plan / 3877-310 Rev A	A & M Architectural Partnership LLP
Mill Rythe Holiday Village – Proposed Site Plan / 3877-410 Rev R	A & M Architectural Partnership LLP
Mill Rythe Holiday Village - Specification for Landscape Works / 20070	Eamonn Byrne Landscape Architects Ltd
21070-DD-LN-0-01-Rev-0 – Planting Schedule	Eamonn Byrne Landscape Architects Ltd
21070-DD-LN-0-02-Rev-0 – Planting Schedule	Eamonn Byrne Landscape Architects Ltd
21070-DD-LN-0-03-Rev-0 – Planting Schedule	Eamonn Byrne Landscape Architects Ltd
21070-DD-LN-0-04-Rev-0 – Planting Schedule	Eamonn Byrne Landscape Architects Ltd
21070-DD-LN-0-05-Rev-0 – Planting Schedule	Eamonn Byrne Landscape Architects Ltd
21070-DD-LN-0-06-Rev-0 – Planting Schedule	Eamonn Byrne Landscape Architects Ltd

Table 1.1: Documentation Provided by Client

2. SUMMARY OF ECOLOGICAL BASELINE

2.1 NATURE CONSERVATION SITES

The desk study completed as part of the Preliminary Ecological Appraisal (Report RT-MME-153231) identified the following European statutory nature conservation sites within a 5 km radius of the site:

- Chichester and Langstone Harbours Ramsar site and Special Protection Area (SPA), located adjacent to the northern, eastern and south-eastern site boundaries;
- Solent Maritime Special Area of Conservation (SAC), located adjacent to the northern site boundary; and,
- Solent and Dorset Coast SPA, located 2.23 km south.

The following UK statutory nature conservation sites, which all fall within the European sites mentioned above, are located within a 2 km radius of the site:

- Chichester Harbour Site of Special Scientific Interest (SSSI), located adjacent to the northern, eastern and south-eastern site boundaries;
- Gutner Point Local Nature Reserve (LNR), located 225 m north;
- Hayling Billy LNR, located 1.56 km west; and,
- Langstone Harbour SSSI, located 1.58 km west.

A further three Solent Wader and Brent Goose Strategy Sites are located adjacent to the application site boundary: one Core Area (Site Code H50C), one Secondary Support Area (Site Code H40A) and one area overlapping with Chichester and Langstone Harbours SPA (Site Code H40C). Mill Rythe Lane Saltmarsh SINC and Solent Wader and Brent Goose Strategy Site is located 220 m north-west.

Potential impacts on the above statutory and non-statutory nature conservation sites, as well as mitigation measures and residual effects are detailed in the Report to Inform Habitats Regulations Assessment: Stage 1 Screening and Stage 2 Appropriate Assessment (Report RT-MME-153231-05) and the CEcMP (Report RT-MME-156532-02), and are not discussed further within this LEMP.

Mill Rythe Holiday Village SINC forms the eastern part of the application site (largely occupied by the former pitch and putt golf course). This SINC is known to support spiny retharrow *Ononis spinosa* (a species that meets Section 6 of the SINC selection criteria) and is also a Secondary Support Area (Solent Wader and Brent Goose Strategy Site H43) for brent geese. It is understood that the new accommodation units are proposed to be installed within the western portion of the former pitch and putt golf course, as this has been identified as a financially viable option which will secure the future of the site. Tree planting is also proposed in the westernmost region of the nature conservation site, in order to screen the proposed development from suitable habitats for brent geese to the east. Specific management prescriptions for the retained portion of Mill Rythe Holiday Village SINC are provided in Chapter 4.

2.2 HABITATS

Middlemarch Environmental Ltd completed an Ecological Walkover Assessment at the site in November 2021. At the time of the survey, the following habitats were recorded within the site (ordered alphabetically, not in order of ecological importance):

- Amenity grassland;
- Building;
- Hardstanding;
- Poor semi-improved grassland;
- Scattered trees;
- Scrub;
- Species-poor intact hedgerow; and,
- Standing water.

The most notable habitats recorded within the site are considered to be building, scattered trees, hedgerow and standing water, which broadly conform to Habitats of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC).

It is understood that existing buildings are to be either retained and refurbished, or demolished. Buildings with confirmed roosts (Buildings 24, 27 and 36) will be demolished in accordance with a Natural England Bat Development Licence. Buildings are not discussed further within this LEMP.

It is understood that many of the scattered trees (including two mature oak trees with bat roosting potential), the hedgerow delineating the southern site boundary and the two onsite waterbodies will be retained and incorporated into the landscaping scheme. However, some trees, which have the potential to support nesting birds, will need to be removed to accommodate the proposed development. Furthermore, small sections of species-poor hedgerow present across the existing holiday village site will be removed to accommodate the proposed development.

Although of generally low ecological importance, the amenity grassland, semi-improved grassland and scrub habitats do contribute to structural diversity within the wider surrounding mosaic of habitats, and may support protected or notable species. The majority of grassland and scrub mosaic within the eastern part of the site will be retained.

The hardstanding habitats on site have negligible ecological value and are unlikely to support protected/notable species. This habitat is not discussed further within this LEMP.

New habitats to be created as part of the landscaping proposals include woodland, hedgerows and species-rich grassland.

Management proposals for the retained and created habitat features are outlined in Chapter 3 and specific objectives and management prescriptions are provided in Chapter 4.

2.3 SPECIES

Mill Rythe Holiday Village SINC, which occupies the eastern portion of the proposed development site, is known to support the following species, for which specific management measures will be required:

- Dark-bellied brent goose *Branta bernicla bernicla* – this migratory bird, which arrives in the UK in October and departs in March, is a qualifying species for several European sites in proximity to the proposed development site, including Chichester and Langstone Harbours Special Protection Area (SPA) and Ramsar Site and Portsmouth Harbour SPA and Ramsar Site. The Mill Rythe Holiday Village SINC is listed on the Solent Wader and Brent Goose Strategy. Dark-bellied brent geese generally graze on salt marshes and mud flats, foraging further inland as food sources are depleted. When grazing inland, dark-bellied brent geese show a preference for open areas of grassland with a dense, short sward. In the absence of mitigation, scrub encroachment and inappropriate grassland management could reduce the suitability of the SINC for dark-bellied brent geese.
- Spiny retharrow *Ononis spinosa* – this shrubby herb is a native perennial of infertile grasslands and flowers from July to September. It is generally found within slightly rough grassland, tending to be absent from more intensively managed or grazed sites. As such, intensive management of grassland within the SINC has the potential to reduce the suitability of the site for spiny retharrow.
- Common lizards *Zootoca vivipara* are widespread throughout the UK, being active throughout April to September. They can be found in grassland, heathland, woodland edges, moorland and sometimes gardens, preferring a heterogeneous mix of grassland heights, interspersed with young scrub growth. They also require areas of bare/open ground, fallen logs or rocks to allow for basking and access to appropriate refuge medium (rubble piles/small mammal burrows/piles of logs/ etc.) to provide hibernation locations.
- Slow worm *Anguis fragilis* prefer habitats with extensive areas of long grass, providing year-round damp conditions and an abundant supply of invertebrates. This includes habitats such as heathland, tussocky grassland, woodland edges and rides. Like other herpetofauna they require access to suitable areas for basking and hibernation.

The wider proposed development site also contains suitable habitats for roosting, foraging and commuting bats, a wide range of bird species, other herpetofauna, badger, hedgehog and terrestrial mammals. These species are also taken into consideration within this management plan.

3. LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN CONTEXT

3.1 AREAS AND FEATURES TO BE MANAGED

Table 3.1 provides a summary of the landscape management areas. A description of the ecological features within each management area is provided in the table with the key ecological features on site detailed in section 3.2. The locations and extent of the management areas are illustrated on the Landscape and Ecology Management Plan (Drawing C156532-03-01) in Chapter 6.

Management area	Description
Area 1: Amenity planting	Comprising amenity grassland areas with formal/ornamental planting and individual trees. The area also contains the holiday village, hard standing/sealed surface, vehicular and pedestrian access routes, caravans and other built form.
Area 2: Neutral grassland	The mosaic of grassland and scrub within Mill Rythe Holiday Village SINC, located at the eastern extent of the site, will be retained and managed to benefit brent geese and spiny reedbed and herpetofauna
Area 3: Scrub	The scrub in this management area provides suitable nesting habitat for birds and shelter and foraging habitat for small mammals, invertebrates and herpetofauna. Work will be undertaken to improve the scrublands vegetative and structural heterogeneity with rotational coppicing. The cut woody material will be piled to create structural diversity within the habitat as well as additional foraging habitat and shelter for small mammals, invertebrates and herpetofauna.
Area 4: Standing water	This area comprises of the single large waterbody in the north-east of the site which falls within the Mill Rythe Holiday Village SINC. Although the waterbody itself will be subject to minimal management, scrub and grassland habitats surrounding the lake will be managed for brent geese. In addition, the margins of the waterbody will be subject to marginal wildflower seeding.
Area 5: Created bund and ditch feature	Along the eastern/southern edge of the Mill Rythe SINC area at the eastern extent of the holiday complex, a ditch and bund feature will be created. The edges of the ditch and bund area will be sown with an appropriate 'wildflower grassland mixture' and managed in accordance with specifications provided in 'Mill Rythe Holiday Village: Specification For Landscape' provided by Eamon Byrne Landscape Architects Ltd (03-12-2021). This area will also be subject to native tree and shrub planting which is also specified within this document and should be referred to for further information.
Species-specific features	Habitat piles/refugia/hibernacula, comprising piled logs/brush material will be created for invertebrates and amphibians within suitable locations at the eastern end of the Mill Rythe complex. Bird and bat boxes are to be installed, located on trees and/or suitable features throughout the site.

Table 3.1: Summary of Landscape and Ecological Features to be Managed

3.2 ECOLOGICAL VALUE OF FEATURES TO BE MANAGED

This section outlines the ecological value of each of the landscape and ecological features to be managed and indicates whether they provide a contribution to national or local biodiversity targets.

Amenity planting

The amenity grassland, formal/ornamental planting, individual trees and sealed surfaces do not meet any national or local biodiversity criteria. However, planting of nectar yielding wildflowers within areas of formal planting will enhance this area for a range of common invertebrates.

Neutral grassland

Neutral grassland can contain a variety of uncommon grass and wildflower species and support a range of fauna including species which are of principal importance for the conservation of biodiversity in England¹ and which are considered as being the most threatened and requiring of conservation action under the UK Biodiversity Action Plan (UK BAP)², most notably invertebrate species. This includes dark-bellied brent geese *Branta bernicla bernicla*, common lizard *Zootoca vivipara*, slow worm *Anguis fragilis* and spiny

¹ Joint Nature Conservation Committee (JNCC) (no date). *UK BAP Priority Habitats list*. Available at: <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/>

² Joint Nature Conservation Committee (JNCC) (2014). *UK Biodiversity Action Plan*. Available at: <https://data.jncc.gov.uk/data/cb0ef1c9-2325-4d17-9f87-a5c84fe400bd/UKBAP-BiodiversityActionPlan-1994.pdf>

restharrow *Ononis spinosa*, which are species that meet Section 6 of the SINC selection criteria for Mill Rythe Holiday Village as a Site of Importance for Nature Conservation (SINC).

Neutral grassland (lowland meadows) is also listed as a Habitat of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC)², and is listed as a priority habitat within the local Biodiversity Strategy for Havant³.

Scrub

While scrub habitat is not considered a priority habitat for nature conservation, it supports a wide range of bird species, invertebrates, small mammals and herpetofauna, including those of principal importance for the conservation of biodiversity in England and which are considered as being the most threatened and requiring of conservation action under the UK Biodiversity Action Plan (UK BAP)².

Standing water

Standing open water is a national priority habitat listed as a Habitat of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). The waterbody on the north-east of the site is not considered to be a particularly high-quality feature but provides additional supporting habitat for brent geese *Branta bernicla bernicla* in the Portsmouth Harbour area and is also liable to offer habitat for a range of additional bird species that utilize the area.

Additional proposed habitat features

Hibernacula features will provide additional habitat for a range of amphibians and invertebrates, some of which are Species of Principal Importance in England. Bird and bat boxes will also help to provide habitat to protected species and priority BAP species, such as common and soprano pipistrelle *Pipistrellus* species.

³ Havant Borough Council (2019). Havant Borough Biodiversity Strategy. Available at: <https://cdn.havant.gov.uk/public/documents/Havant%20Borough%20Biodiversity%20Strategy.pdf#:~:text=The%20strategy%20will%20enable%20Havant,taking%20a%20collective%20approach%20to>

4. LANDSCAPE AND ECOLOGICAL MANAGEMENT PROPOSALS

4.1 INTRODUCTION

This chapter provides aims and objectives of management, and outlines specific management prescriptions, for each of the following features:

- Area 1: Amenity planting (Section 4.2);
- Area 2: Neutral grassland (Section 4.3);
- Area 3: Scrub (Section 4.4);
- Area 4: Standing water (Section 4.5);
- Area 5: Created bund and ditch feature (See specifications provided in 'Mill Rythe Holiday Village: Specification For Landscape' provided by Eamon Byrne Landscape Architects Ltd (03-12-2021).
- Additional proposed habitat features (Section 4.6).

4.2 AREA 1: AMENITY PLANTING

4.2.1 Aims and Objectives

Aim:

- Provide a habitat which balances ecological and amenity requirements.

Objectives:

- Maintain grassland habitat for its aesthetic value and usage for recreational activity.
- Encourage greater flowering species richness (UK native of local provenance) within areas of formal/ornamental planning.
- Ensure health and safety criteria are met for site users.
- Deliver the long-term maintenance of amenity planting areas in ascendance with section Q35 of report 20070, 'Specification for Landscape Works'.

Table 4.1 presents management activities in order to meet the aims and objectives for the habitat.

4.2.2 Management Prescriptions for Area 1: Amenity planting

Feature	Prescription	Purpose	Timing	Year									
				1	2	3	4	5	6	7	8	9	10
Amenity grassland areas	Cut at least 12 times per annum to a height of 25 - 50 mm. Can be cut on a weekly basis during summer months when growth is fastest. Cut as and when necessary during remainder of year.	Reasons of public health and safety. To allow an array of recreational usage	April - September	x	x	x	x	x	x	x	x	x	x
	Mechanical or chemical treatments (approved chemicals only) where necessary to control the spread of noxious weed species. All arisings then removed from the area.	Encourage greater flowering species richness by reducing competition from vigorous species.	n/a	x	x	x	x	x	x	x	x	x	x
Individual trees (retained and newly planted)	Minimal intervention strategy. Tree condition to be reviewed annually to ensure no risk to public from damaged/dead trees.	Reasons of public health and safety.	n/a	x	x	x	x	x	x	x	x	x	x
	Monitor tree health and consult qualified arboriculturalist with any potential issues. Any tree felling should consider a need to retain tree stumps. This is to be agreed on an individual basis in each situation.	Maintain tree health and allow habitat to provide for nesting birds and insects. Retention of tree stumps as standing deadwood to provide habitat for invertebrates	n/a	x	x	x	x	x	x	x	x	x	x
Grassland areas with perennial wildflowers	The total grassland area to be cut once a year in between late July to mid-September to varying heights of between 50 mm to 80 mm. Arisings to be left in situ for a suitable period to allow seed to drop then removed off site.	Prevent nutrient build up Encourage greater flowering species richness	late July to mid-September	x	x	x	x	x	x	x	x	x	x
	Mechanical or chemical treatments (approved chemicals only) where necessary to control the spread of noxious weed species. All arisings then removed from the area.	Encourage greater flowering species richness by reducing competition from vigorous species.	n/a	x	x	x	x	x	x	x	x	x	x

Table 4.1: Area 1 Habitat Management Prescriptions

4.3 AREA 2: NEUTRAL GRASSLAND

4.3.1 Aims and Objectives

Aims:

- To maintain the valuable neutral grassland within the Mill Rythe Holiday Village SINC for a range of wildlife, including brent goose and spiny reedharrow.
- Provide additional high-quality habitat for to support a diverse assemblage of herpetofauna, invertebrates, birds, and small mammals.
- Improve site biodiversity value.

Objectives:

- Reduction in soil nutrients to improve floristic diversity.
- Manage tall ruderal and pernicious weed encroachment.
- Increase diversity of sward.
- Increase total area of neutral grassland within the site.
- Improve grassland habitat condition.
- Prevent tall ruderal and pernicious weed encroachment.

Table 4.3 presents management activities in order to meet the aims and objectives outlined above.

4.3.2 Management Prescriptions for Area 2: Neutral Grassland

Feature	Prescription	Purpose	Timing	Year									
				1	2	3	4	5	6	7	8	9	10
Established Neutral Grassland	Approx. 50% of the total grassland area to be cut once a year in between late July to mid-September to varying heights of between 50 mm to 80 mm.	Improve sward diversity.	Late July to mid-September				X	X	X	X	X	X	X
	Arisings to be left in situ for a period of one week to allow seed to drop then removed off site (or could be moved to a specified 'composting area' on site which may offer additional habitat – any composting areas must be contained however and no spread over large areas)	To maintain winter cover for invertebrates, bird species and small mammals.											
	The areas of the grassland that are cut (and the heights to which they are cut) should alternate each year.	To enhance the floral biodiversity of the grassland habitat.											
	A pathway is to be managed around the area of the retained neutral grassland at the eastern end of the Mill Rythe complex. This is to be mown to a height of approximately 50-80 mm on a regular basis (interval to be determined on vegetation growth) and between 1-1.5 m in width. All arisings will be removed and deposited in a designated area.	To provide a waymarked route for users of Mill Rythe Holiday complex and to encourage enjoyment of natural world.	April through to September (as and when required)	x	x	x	x	x	x	x	x	x	x
	Mechanical treatments where necessary to control the spread of noxious weed species. Dense growths of tall ruderals to be cleared using a mixture of strimmer's, brush cutters and hand tools as appropriate. All arisings then removed from the area.	Maintain the neutral grassland indicators within the sward by reducing competition from vigorous species.	June to September.				x	x	x	x	x	x	x

Table 4.2: Area 2 Habitat Management Prescriptions

4.4 AREA 3: SCRUB

4.4.1 Aims and Objectives

Aims:

- To maintain the valuable habitat mosaic of grassland and scrub within the Mill Rythe Holiday Village SINC for a range of wildlife, including brent goose and spiny retharrow.
- Prevention of habitat succession and encourage structural/age diversity of scrub.
- Provide additional high-quality habitat for to support a diverse assemblage of herpetofauna, invertebrates, birds, and small mammals.
- To improve site biodiversity value.

Objectives:

- To maintain grassland glades amongst scrub areas.
- To establish of a range of differing age structures of woody plants within the scrubland.
- To maintain suitable nesting habitat for birds.
- To re-establish ground level flora.
- To manage tall ruderal and pernicious weed encroachment.
- To avoid disturbance to nesting and wintering birds during habitat management.
- To provide habitat for a range of fauna.

Table 4.3 presents management activities in order to meet the aims and objectives outlined above.

4.4.2 Management Prescriptions for Area 3: Scrub

Feature	Prescription	Purpose	Timing	Year									
				1	2	3	4	5	6	7	8	9	10
Scrubland	Approx. 25% of scrub should be coppiced every year. Where the scrub is dense, to be cut in a series of liner 'rides' interlinking with occasional 'glades' to allow for light penetration into the base of the dense scrub areas and to increase habitat heterogeneity. Successive cuts should focus on different areas of the scrubland, overlapping occasionally to maximize diversification of age structure and prevent habitat succession into woodland. Any necessary cutting of scrub areas should be carried out over winter and all arisings either to be 'dead-hedged' along the boundaries between the scrub and neutral grassland areas or else to be used to create 'habitat piles' within the scrubland area	To prevent habitat succession into a less biodiverse habitat and promote structural/age diversity of scrub to provide a wide range of conditions/features for faunal/floral species Timing to prevent disturbance to nesting birds.	November – February (But preferably January and February to allow berry sources to be exploited by birds and mammals)	x	x	x	x	x	x	x	x	x	x
	Mechanical treatments where necessary to control the spread of noxious weed species. Dense growths of tall ruderals to be cleared using a mixture of strimmer's, brush cutters and hand tools as appropriate. All arisings then removed from the area.	To allow recovery of a diverse ground flora assemblage by reducing competition from vigorous species.	June to September.	x	x	x	x	x	x	x	x	x	x

Table 4.3: Area 3 Habitat Management Prescriptions

4.5 AREA 4: STANDING WATER

4.5.1 Aims and Objectives

Aims:

- To maintain and improve biodiversity value of the waterbody and its margins in the north-east of the site.
- To improve overall site biodiversity value.
- Improve site for herpetofauna, invertebrates and waterbirds.

Objectives:

- To prevent the excessive encroachment of aquatic vegetation which may result in waterbody infilling and drying.
- To maintain good water quality, high water oxygenation and prevent eutrophication and anoxic conditions.
- Prevent overshadowing of waterbody margins to manage scrub, tall ruderal and pernicious weed encroachment.
- Create heterogeneous bankside habitat to support amphibian feeding and offer egg-laying areas around waterbody margins.
- To provide a diverse range of botanical species around margins of waterbody.

Table 4.4 presents management activities in order to meet the aims and objectives for the habitat.

4.5.2 Management Prescriptions for Area 4: Standing water

Feature	Prescription	Purpose	Timing	Year									
				1	2	3	4	5	6	7	8	9	10
Waterbody with Marginal and Emergent Planting	Minimal intervention strategy; works to be enacted only where and when required.	Maintain open water; prevent the excessive encroachment of aquatic vegetation resulting in waterbody drying; maintain good water quality; and to maintain biodiversity of feature	October – February	x	x	x	x	x	x	x	x	x	x
	A minimum of 1/3 of total waterbody surface should be retained as open water. When and where vegetative encroachment reduces the desirable open water levels below this level 1/3 of the waterbody's total marginal and emergent vegetation should be removed.												
	Vegetative removal should occur using hand tools or a small excavator and preferentially target the removal of fast-growing aquatic vegetation which form rhizoid mats (i.e., reedmace <i>Typha latifolia</i> and common reed <i>Phragmites australis</i>). The whole of the plant (inclusive of roots) should be removed during clearance. All removed vegetative matter should be placed adjacent to the pond for a period of at least 24 hours (to allow for any hidden amphibians or invertebrates time to remove themselves) prior to the removal of all arisings from site (or deposit in designated 'composting area').												
	Removal of marginal and emergent vegetation should occur in a heterogenous pattern across the waterbody cleared.												
	Margin of waterbody to be seeded with suitable native marginal wildflower species. Emorsgate EP1 and EP1F Pond Edge Mixture and Wildflower Pond Edge Mixture Standard. See 'Mill Rythe Holiday Village: Specification For Landscape' provided by Eamon Byrne Landscape Architects Ltd (03-12-2021 – Section 312). Subsequent management as for Area 2: Neutral Grassland.	Provide floristic diversity and habitat for a wide range of herpetofauna and invertebrate species plus cover for bird species including potential cover for breeding waterfowl.	March to May or August to October	x									
	Minimal intervention strategy; works to be enacted only where and when required.	To prevent waterbody overshadowing and to prevent scrub encroachment resulting in it drying out	October – February	x	x	x	x	x	x	x	x	x	x
	All scrub growth occurring within the waterbody margin or adjacent should be removed using hand tools and all arising removed from site ((or deposit in designated 'composting area')).												

Table 4.4: Area 4 Habitat Management Prescriptions

4.6 SPECIES-SPECIFIC FEATURES

4.6.1 Aims and Objectives

Aim:

- To ensure long-term provision of habitat feature for herpetofauna, invertebrates, bats and birds.

Objectives:

- Monitoring of species-specific features to ensure they remain in favourable condition.
- Replacement of any features lost or damaged to ensure no net-loss of habitat for notable species.

Table 4.5 presents management activities in order to meet the aims and objectives for these features.

4.6.2 Management Prescriptions for Species-Specific Features

Habitat	Prescription	Purpose	Timing	Year									
				1	2	3	4	5	6	7	8	9	10
Refugia/ hibernacula	Monitor condition of hibernacula and undertake remedial action where necessary.	To ensure that features remain in good condition and maintain their value to biodiversity.	Annually, April to September	x	x	x	x	x	x	x	x	x	x
Bat boxes on trees or selected buildings and structures	Condition of bat roost features to be checked annually. If problems are identified, remedial action should be agreed with an ecologist and implemented promptly.	To ensure features are fit-for-purpose.	September	x	x	x	x	x	x	x	x	x	x
Bird boxes on trees or selected buildings and structures	Annual monitoring to assess condition of boxes. Replacement of failed boxes.	To ensure ongoing provision of bird nesting features on site.	Annually in October	x	x	x	x	x	x	x	x	x	x

Table 4.5: Species-Specific Features Management Recommendations

5. MONITORING

5.1 ECOLOGICAL MONITORING OF HABITATS AND KEY INDICATOR SPECIES

A monitoring regime (as detailed in Table 5.1), comprising semi-regular Phase 1 Habitat/UK Habitat Classification surveys, photographic monitoring and periodic botanical surveys will be established to assess whether the recommended habitat prescriptions are delivering the desired aims and objectives for each management area.

			Year Post-development									
Feature	Monitoring	Timing	1	3	5	7	9	10	15	20	25	30
All Habitats Within Management Areas	Ecological survey to be carried out to Phase 1 Habitat Survey methodology.	May-August		x		x		x	x	x	x	x
All Habitats Within Management Areas	Photographic monitoring to be carried out using fixed-point photography to keep record of developing habitats and results of habitat management works.	May-August		x		x		x	x	x	x	x
Spiny retharrow	A Botanical Survey of Mill Rythe Holiday Village SINC to be undertaken to monitor the status of spiny retharrow at the site.	July-September, when species is in flower		x		x		x	x	x	x	x

Table 5.1: Proposed Habitat Monitoring

5.2 BIOSECURITY REQUIREMENTS

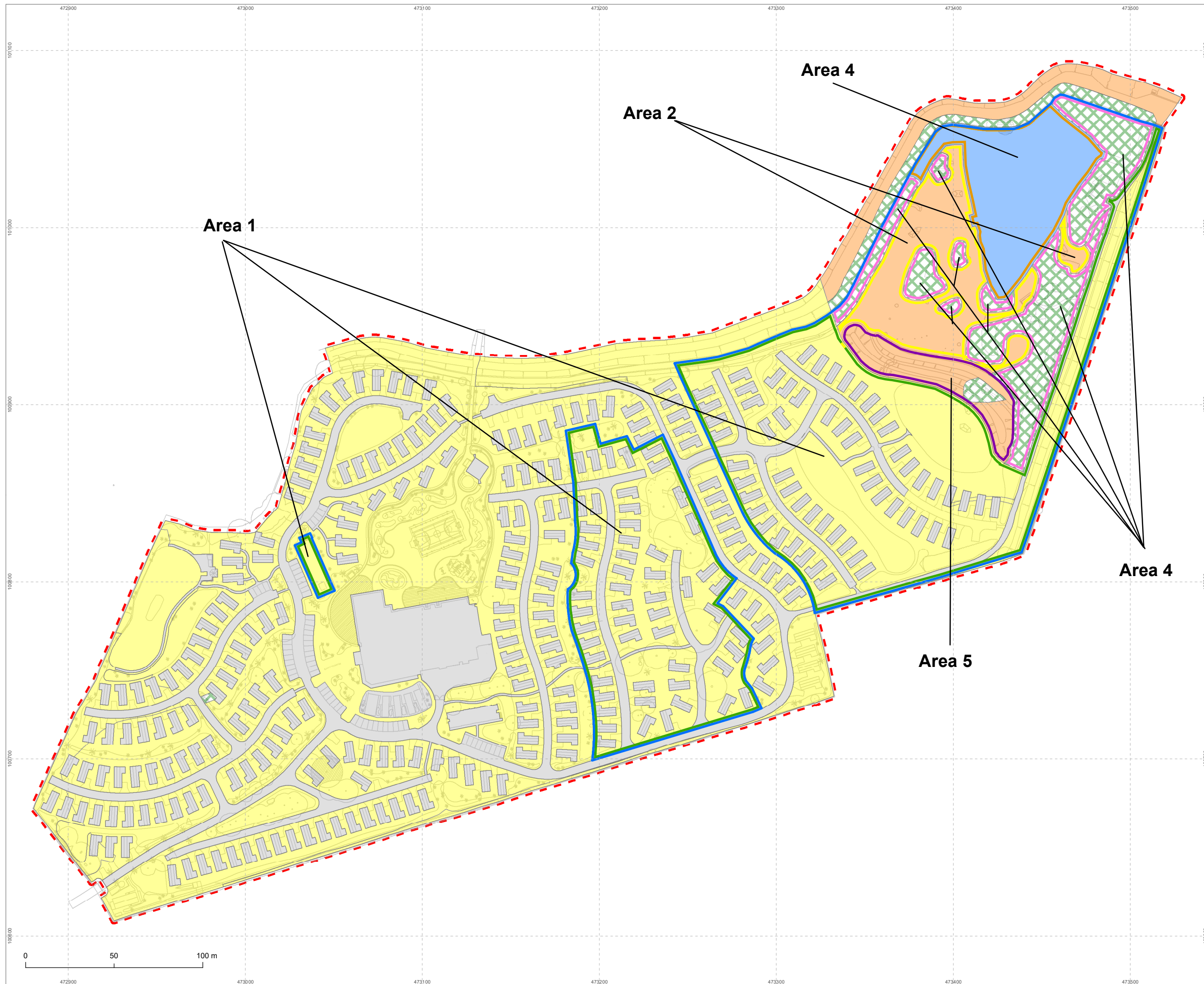
To ensure that invasive or harmful species or pathogens are not accidentally introduced to the site when undertaking habitat monitoring, strict biosecurity measures should be adhered to by all individuals undertaking any assessments and also in relation to all material/equipment used.

Monitoring should also detail the occurrence on site of any invasive species (Schedule 9⁴), or the presence of any undesirable vegetative or animal species (for the delivery of the habitats determined aims and objectives). Should such species be noted as present, recommendations should be made to effectively manage their occurrence within the site; removing them if possible, or else mitigating their negative impacts if removal is impractical or illegal.

⁴ Wildlife and Countryside Act 1981 (as amended), Schedule 9 list species, being Animals and Plants to which Section 14 of the Act Applies, Available at: <https://www.legislation.gov.uk/ukpga/1981/69/schedule/9>

6. DRAWINGS

Drawing C156532-03 (Middlemarch Environmental Ltd.) – Landscape and Ecology Management Plan



C156532-03-01

Legend

- Site boundary
- Planning application boundary
- Amenity planting management
- Neutral grassland management
- Scrub management
- Standing water management
- Hardstanding

Planning boundary management areas

- Area 1 - Amenity
- Area 2 - Neutral grassland management
- Area 3 - Dense scrub management
- Area 4 - Standing water management
- Area 5 - Created bund and ditch with wildflower grasses and planted trees

Project
Mill Rythe Holiday Village, Hayling Island

Drawing
Landscape and Ecology Management Plan

Client
Away Resorts Ltd.

Drawing Number
C156532-03-01

Revision
00

Scale @ A3
1:2000

Date
January 2022

Approved By
AZ

Drawn By
JR

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This drawing is based on site survey
"3189-200-201-202-203-204 Site Survey.dwg", supplied by the client.