Maidstone's Biodiversity Strategy

A Local Biodiversity Action Plan

Phase 1: 2009 – 2014

HAP 1: Lowland Calcareous Grassland



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Description

- 1.1 Lowland calcareous grasslands are developed on shallow lime-rich soils generally overlying limestone rocks, including chalk. These grasslands are now largely found on distinct topographic features such as escarpments or dry valley slopes and sometimes on ancient earthworks in landscapes strongly influenced by the underlying limestone geology.
- 1.2 The definition of calcareous grasslands covers a range of plant communities in which lime-loving plants are characteristic. In the context of this Action Plan, lowland types are defined as the first nine calcareous grassland National Vegetation Classification communities, CG1 to CG9.
- 1.3 Lowland calcareous grassland is extremely rich in flora and associated fauna. Maidstone's lowland calcareous grasslands are important for UK BAP species such as the Silver spotted skipper (*Hesperia comma*), Adonis blue butterfly (*Lysandra bellargus*), Large blue butterfly (*Maculinea arion*), Bordered gothic moth (*Heliophobus reticulata*), Pale shining brown moth (*Polia bombycina*), Four-spotted moth (*Tyta luctuosa*), and the Skylark (*Alauda arvensis*). In addition it is important for scarce species such as the early spider orchid (*Ophrys sphegodes*) and the late spider orchid (*Ophrys fuciflora*).
- 1.4 Lowland calcareous grassland should also support an element of chalk scrub. Maidstone's Lowland calcareous grassland is traditionally an intimate mosaic of calcareous grassland, chalk scrub and woodland.

National status

- 2.1 The UK is thought to hold half the world's extent of calcareous grassland. The cover of lowland calcareous grassland has suffered a sharp decline in extent over the last 50 years. There are no comprehensive figures, but a sample of chalk sites in England surveyed in 1966 and 1980 showed a 20% loss in that period and an assessment of chalk grassland in Dorset found that over 50% had been lost between the mid-1950s and the early 1990s.
- 2.2 Current estimates put the amount of lowland calcareous grassland remaining in the United Kingdom around 33,000 to 41,000 ha.

Local status

- 3.1 Kent contains some 5% of the UK resource and 20% of the resource in the south east region.
- 3.2 The Kent Habitat Survey 2003 recorded 143 ha of lowland calcareous grassland occurring in Maidstone Borough, of which only a quarter is notified as Sites of Special Scientific Interest (SSSI), although a further 40% lies within Local Wildlife Sites (LWS).
- 3.3 All of the lowland calcareous grassland within SSSI in the borough is under management and is currently on target to be in a favourable or unfavourable recovering condition by 2010 in accordance with the Public Service Agreement Targets.
- 3.4 Approximately 93% of the 56ha of lowland calcareous grassland within LWS is under environmental stewardship specifically for grasslands suggesting that these areas are in or will be in a favourable condition within the next 5 years.
- 3.5 In total 123 ha (86%) of the calcareous grassland identified within the Kent Habitat Survey 2003 is in favourable condition.

Factors causing decline in biodiversity

- 4.1 Agricultural Intensification has used a large amount of this habitat for farming and has also increased the amount of herbicides and fertilizers causing a loss or decline in characteristic species.
- 4.2 Invasion by non-native plants, including bird-sown *Cotoneaster* species, causes problems by smothering and out competing calcareous grassland communities.
- 4.3 Scrub Encroachment from lack of grazing management is the main threat to the habitat, with species diversity declining in rank grassland followed by its eventual loss to scrub and woodland.
- 4.4 Climate Change could be a possible risk to this habitat; however the overall effects on this habitat have not yet been fully assessed.
- 4.5 Fragmentation hinders the response of species to factors such as climate change and can also create non-sustainable metapopulations and local extinctions.

Current national action

- 5.1 Lowland calcareous grassland is a targeted habitat under agri-environmental schemes for maintenance, restoration, enhancement and creation.
- 5.2 Under its Public Service Agreement target, English Nature is targeting areas of calcareous grassland within SSSIs to achieve at least 95% in favourable condition by 2010.
- 5.3 The Kent Downs Area of Outstanding Natural Beauty (AONB) contains all the lowland calcareous grassland in the Borough. The AONB Management Plan 2004-2009²³ is supported by Maidstone Borough Council and contains adopted policies to conserve and enhance biodiversity within the AONB.

Funding resources

6.1 The Environmental Stewardship Scheme provides funding the maintenance, restoration and creation of species-rich grassland.

National plan objectives and actions

7.1 The UK-BAP Lowland Calcareous Grassland Habitat action plan objectives and targets cover habitat conservation, restoration and expansion. Specifically the action plan targets the continuing loss of lowland calcareous grassland. The plan seeks to have 32,036 hectares of Lowland Calcareous Grassland Habitat in a favourable or recovering favourable condition by 2015. The plan also targets the re-establishment of 8,462 hectares of lowland calcareous grassland of wildlife value at carefully targeted sites in England by 2015.

Local plan objectives and actions

8.1 The Kent LBAP Lowland Calcareous Grassland Habitat action plan objectives and targets concentrate on the improvement of designated sites and creation of the habitat. Within SSSIs it seeks wherever feasible, favourable status for all lowland calcareous grassland by 2020. Within LWS the plan seeks favourable status for 25% lowland calcareous grassland by 2020, increasing to 50% by 2026. The plan also targets the re-establishment of 332ha by 2020 and an additional 166 ha by 2026.

Maidstone's objectives

- 9.1 Maidstone's objectives are;
 - 1. Maintain the current extent and quality of lowland calcareous grassland habitat.
 - 2. Ensure positive management of lowland calcareous grassland habitat.
 - 3. Re-establish lowland calcareous grassland habitat by expanding the current extent of the habitat.
 - 4. Restore and maintain structural diversity within areas of lowland calcareous grassland through creation of habitat features including patches of native scrub (incorporating local provenance shrubs grown from cutting and seed such as native box and juniper), bare ground and dew ponds.

Objectives and targets

Objective 1: Maintain the current extent and quality of lowland calcareous grassland habitat

Target 1: Maintain 143 ha (as identified by the Kent Habitat Survey 2003) by 2026.

LCG	ACTION	TARGET	TARGET	KEY	PROGRESS
		START	END	EXTERNAL	
		DATE	DATE	PARTNERS	
1.	Ensure that Maidstone's Local Development Framework	2010	2011	ALL	
	contain policy to protect Lowland Calcareous Grassland.				
2.	Ensure that regional strategies and plans contain policy to	2010	2011	KWT	
	protect Lowland Calcareous Grassland.			NE	
				KCC	
3.	Ensure all calcareous grassland of local importance is	2010	2026	KWT	
	designated as a Local Wildlife Site (LWS).				
4.	Ensure that calcareous grassland is seen as a priority by all	2010	2015	ALL	
	bodies offering management advice to landowners within the				
	North Downs AONB.				
5.	Develop data recording on environmental stewardship for	2010	2015	ALL	Need for recording/monitoring system to be
	species-rich grassland to distinguish between the different				set up as determined by Steering Group.
	priority habitats (lowland calcareous grassland, lowland				Opportunity for community engagement.
	meadows and lowland dry acid grassland) that could be				
	managed under this option.				

Objective 2: Ensure positive management of lowland calcareous grassland habitat

Target 2: Ensure the positive management of 119 ha by 2015, 120 ha by 2020 and 123 ha by 2027.

LCG	ACTION	TARGET	TARGET	KEY	PROGRESS
		START	END	EXTERNAL	
		DATE	DATE	PARTNERS	
6.	Ensure that all lowland calcareous grassland identified in the	2010	2026	NE	
	Kent Habitat Survey 2003 is under an environmental			KWT	
	stewardship.				

Objective 3: Re-establish lowland calcareous grassland habitat by expanding the current extent of lowland calcareous grassland habitat

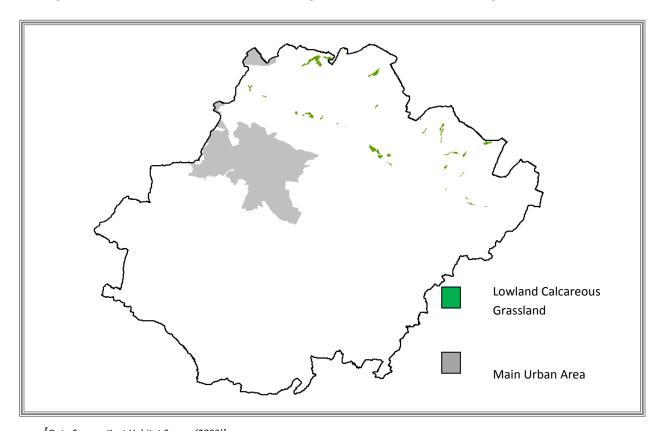
Target 3 & 4: Expand areas of lowland calcareous grassland habitat at sites adjacent to current species-rich grassland habitat by 29 ha by 2014 and 30 ha by 2026 (Total: 30 ha by 2026). Restore areas of lowland calcareous grassland habitat at sites adjacent to species-rich grassland by 3 ha by 2014 and 4 ha by 2026 (Total: 4 ha by 2026).

LCG	ACTION	TARGET START DATE	TARGET END DATE	KEY EXTERNAL PARTNERS	PROGRESS
7.	Annually monitor the borough's environmental stewardship data on species-rich grassland to assess current management and expansion of lowland calcareous grassland, and identify key areas where expansion and linkage would reduce current fragmentation of the habitat.	2010	2026	NE	
8.	Target creation schemes for lowland calcareous grassland environmental stewardships to areas adjacent to area of lowland calcareous grassland that is currently in favourable condition.	2010	2026	NE	
9.	Look to developers to include calcareous grassland creation in key areas within developments.	2010	2026	ALL	
10.	Restore and maintain structural diversity within areas of lowland calcareous grassland through creation of habitat features including patches of native scrub (incorporating local provenance shrubs grown from cutting and seed such as native box and juniper), bare ground and dew ponds. Target ELS and HLS schemes and LBES funding stream	2010	2026	ALL MVCP	

Lowland calcareous grassland distribution

10.1 The distribution of lowland calcareous grassland can be seen in figure 1.

Figure 1 Distribution of lowland calcareous grassland in Maidstone Borough



[Data Source: Kent Habitat Survey (2003)]