

Shamblewood Bike Park – Ecological Statement

1. Background

Eastleigh Borough Council has served an Enforcement Notice relating to the use of woodland at Shamblehurst Lane North, Botley, for a non-motorised bike trials and mountain bike skills facility.

One of the Council's reasons for refusal is that insufficient ecological and arboricultural information has been provided to demonstrate that the proposal does not result in unacceptable harm to biodiversity or the woodland environment.

The purpose of this report is therefore to provide the Planning Inspectorate with an independent professional assessment of the ecological effects of the development.

This report has been prepared by Robin Leech MCIEEM. I am an experienced ecologist specialising in grassland and freshwater habitats and have acted as an ecological adviser to Shamblewood Bike Park. While I have an association



with the site through this advisory role, the opinions and conclusions presented in this report are my own professional assessment, prepared in accordance with the standards and Code of Professional Conduct of The Chartered Institute of Ecology and Environmental Management (CIEEM).

2. Existing Ecological Baseline

The ecological value of the site can be outlined in two habitats that are defined using UKHAB habitat descriptions, woodland and grassland. The area to be considered is 2.92 hectares. The land sits wet in the winter and is adjacent to the Ford Lake (Stream) which is a tributary of the River Hamble and is a minor water body/stream receiving drainage from surrounding urban and heathland areas.

2.1 Woodland

At the start of the project the woodland comprised a mosaic of UKHab habitat types including Wet Woodland (wd1), Other Broadleaved Woodland (w1g) and Mixed Scrub (h3h).

The woodland was unmanaged and was in a poor condition, many of the trees were in a state of severe decline and the species diversity was low. A result of this was a lack of complexity in the woodland that did not allow structural diversity along with little to no understory or ground flora.

2.2 Grassland

The grassland habitats were limited in extent and classified as Other Neutral Grassland (g3c) under the UKHab classification.

These areas had also received little management and were progressively declining in extent through natural succession to scrub and woodland. The sward was dominated by coarse, tussock-forming species, principally Tufted Hair-grass (*Deschampsia cespitosa*) and Hard Rush (*Juncus inflexus*). Localised evidence of soil compaction and historic aggregate deposition was present within and adjacent to the grassland areas.

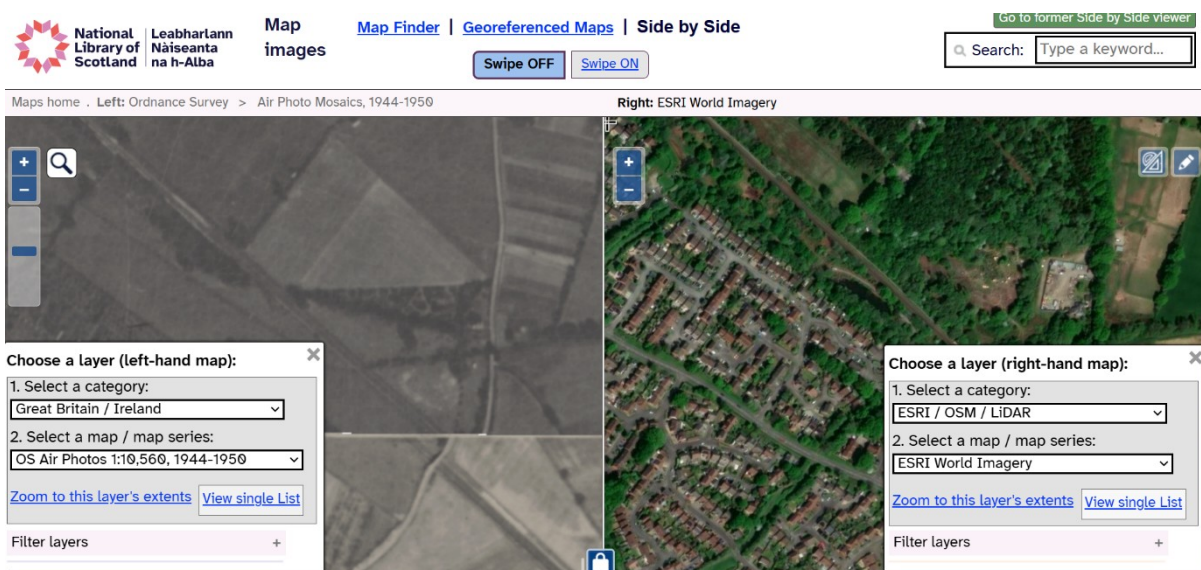
3. History of the site

Review of historic mapping demonstrates that the site has been actively managed for much of its recent history. More recent mapping, together with current site observations, indicates that active management has largely ceased, resulting in scrub encroachment, woodland succession and a decline in the extent and condition of the grassland habitats described above.

The historic mapping therefore provides important context for understanding the ecological development of the site. Two historic maps have been assessed and are presented below to illustrate changes in land management and habitat distribution over time.



The aerial photograph above, obtained from thelandapp.com and dating from approximately 2000, shows that the site was considerably more open than it is at present. The image indicates that much of the site comprised open grassland, with a central block of denser tree cover and scattered individual trees and smaller groups of trees across the remainder of the site. This provides evidence that substantial woodland and scrub expansion has occurred over the intervening period, consistent with a reduction in active land management.



Looking further back to the immediate post-Second World War period, the screenshot above, obtained from the National Library of Scotland's side-by-side historic mapping, demonstrates that the site was in a markedly different condition. The mapping shows a relatively small triangular belt of woodland surrounded by what appears to be intensively managed agricultural land.

This historic evidence demonstrates that the habitats present at Shamblewood have been shaped by successive changes in land use and management over many decades. As with much of the surrounding landscape, the site has evolved in response to agricultural practices, woodland succession and changing management regimes, rather than remaining as a static or undisturbed woodland ecosystem.

4. Woodland Management

At the beginning of the project, I was asked to provide ecological advice on the management of the woodland and, in particular, whether tree removal would be appropriate. I advised a programme of selective scrub control, coppicing of the majority of the willow and the retention of suitable broad-leaved trees to maintain woodland continuity and structural diversity.

The works did not require a felling licence, and no individual Tree Preservation Orders (TPOs), or woodland TPO, were in force at the time the management commenced.

The coppiced willow has regenerated vigorously, with abundant regrowth evident throughout the managed areas. Natural woodland regeneration has also been observed, with limited evidence of browsing pressure. Based on my observations, the continued recreational use of the site as a bike park has not adversely affected the regeneration of coppiced stools or naturally regenerating saplings.

The coppicing programme has been undertaken progressively by hand over several years rather than as a single operation. This has resulted in a mosaic of coppice ages and woodland structures, increasing habitat heterogeneity and avoiding the creation of extensive areas of uniformly managed woodland.

Prior to management, many willow trees exhibited evidence of physiological decline, with numerous dead, dying and unstable stems present throughout the woodland. Coppicing has rejuvenated these trees, stimulating vigorous new growth and improving their long-term health. Although management remains ongoing, the woodland now exhibits a more varied structure, with increased light penetration to the woodland floor. This has created conditions more favourable for the development of ground flora, natural regeneration of woody species and a greater diversity of woodland microhabitats than was present prior to management.

5. Biodiversity

Based on my observations over the course of advising on the management of the site, the biodiversity interest of the woodland is good and supports a range of common woodland species.

Breeding woodland birds are regularly present, including several species of tits, finches and woodpeckers, with evidence of nesting observed within the woodland. Swallows have been recorded feeding over the site during the summer months, while Sparrowhawk and Kestrel are occasional visitors. Tawny Owls are frequently heard calling at night and are likely to utilise the site as part of their foraging territory, although there are few mature trees containing cavities suitable for nesting.

Mammals recorded on the site include Roe Deer, Fox and Rabbit. During site management works, I also recorded an adult Grass Snake sheltering beneath a timber sheet, demonstrating that the site provides suitable habitat for reptiles.

The woodland management has created a variety of additional habitat features, including log piles, retained deadwood and timber structures associated with the bike trials facility. These features provide opportunities for invertebrates, reptiles, amphibians, small mammals and nesting birds by increasing the diversity of available shelter, basking, foraging and nesting habitats.

The botanical diversity of the site has also increased following the introduction of woodland management. Prior to management, the woodland floor supported only sparse ground flora beneath the dense canopy. As selective coppicing and scrub management increased light availability, a more diverse ground layer developed, including grasses, sedges, rushes and flowering plants. Notably, a Common Spotted Orchid (*Dactylorhiza fuchsii*) emerged within an area previously dominated by Blackthorn scrub, indicating that a remnant woodland ground flora had persisted despite prolonged shading.

In my professional opinion, the woodland management undertaken at Shamblewood has enhanced habitat structure and increased ecological diversity through the creation of a more heterogeneous woodland. The introduction of varied light conditions, coppice regrowth, standing and fallen deadwood, and a greater diversity of woodland microhabitats is consistent with recognised principles of good woodland management and is likely to have resulted in an overall enhancement of the site's biodiversity value.

6. Effect of the Development

The use of the bike park is predominantly seasonal, with the highest levels of activity occurring between spring and autumn. Typical use comprises small groups during weekday evenings, small numbers of riders during weekends, and occasional organised events, generally held on a monthly basis, which attract a greater number of participants.

From an ecological perspective, habitat fragmentation is not considered to be an issue. The woodland remains contiguous, with riding features dispersed throughout the site rather than creating isolated habitat blocks or barriers to wildlife movement.

The ecological effects of rider activity are considered to be low. The principal impacts comprise localised ground disturbance from bicycle tyres, together with intermittent human presence and associated noise. These disturbances are limited in extent and intensity and are comparable to other low-intensity recreational uses within managed woodland.

In my professional opinion, the level of activity is unlikely to result in significant adverse effects on mammals, reptiles, amphibians or invertebrates using the site. The retained woodland structure, extensive ground cover, deadwood habitats and connectivity throughout the site continue to provide suitable habitat and refuge for these species.

The principal ecological consideration is the potential for disturbance to nesting birds during the breeding season. This can be effectively mitigated through routine inspections of areas where management or riding activity is proposed, with any active nests protected by temporary exclusion zones until breeding has concluded. This approach has already been adopted at the site and represents a simple and proportionate mitigation measure.

Overall, I consider the ecological effects arising from the operation of the bike park to be low and capable of being effectively managed through the measures described above.

7. Drainage Works

The Enforcement Notice refers to drainage channels within the site. These channels were created by hand to reduce areas of standing surface water within the woodland and to direct that water into the existing adjacent stream. They are small, shallow channels and do not constitute engineered drainage infrastructure.

In my opinion, the movement of shallow surface water is unlikely to adversely affect tree health, as the principal rooting zones of established trees extend below the level influenced by these minor surface channels. Some localised change in the grassland community may occur where ground conditions

become less waterlogged; however, based on my observations from the outset, the grassland community in these areas was already very limited and of low ecological value.

The effects of water movement and flood risk across the site are addressed separately by Nicola Dibble, Head of Flood Risk and Drainage at Brindle & Green consultancy. Her assessment concludes that the works have not increased the overall level of water movement, and I therefore do not discuss that matter further here. My comments are limited to the potential for increased sediment loss from the site as a result of the shallow surface drainage.

I have undertaken extensive work on sediment source fingerprinting alongside Professor Adie Collins at Rothamsted Research, including the assessment of sediment loads and source apportionment. Based on that experience, it is relevant that, when the project began, the site was derelict and contained substantial areas of bare ground and exposed soil. Research at Rothamsted has shown that sediment mobilisation commonly occurs when raindrops strike bare soil, using their kinetic energy to detach and disperse soil particles, which can then be carried away in surface runoff. Where vegetation or other green cover is present, the energy of raindrop impact is reduced, and sediment runoff is correspondingly lower. The site now supports a considerably greater extent of ground cover, particularly grassland, than it did at the outset. In my opinion, this increased vegetation cover is likely to reduce sediment runoff from the site, even taking account of the minor surface drainage channels.

8. Arboriculture Matters

From an arboricultural perspective, the works described above do not indicate harm to the retained woodland. The coppicing and selective retention of broad-leaved trees are consistent with appropriate small-scale woodland management and have promoted regrowth, natural regeneration and improved structural diversity. The observed response of the coppiced trees, together with the increased light reaching the woodland floor, suggests that the management has improved rather than reduced the health and resilience of the woodland. In my opinion, the arboricultural effects are therefore

beneficial overall and support the long-term sustainability of the site as managed woodland.

9. Biodiversity Net Effect

In my professional opinion, the biodiversity net effect of the current management has been positive overall. The previous sections demonstrate that the site has moved from a largely unmanaged and declining condition towards a more structurally varied woodland with improved ground flora, active coppice regrowth, natural regeneration and increased habitat opportunities. While some localised disturbance is associated with the cycling use, I have not observed evidence that this is causing significant ecological harm. On balance, the management appears to have enhanced the ecological condition and functionality of the site rather than resulting in ecological neutrality or harm.

10. Future Management

Future management of the site should continue to follow the principles of rotational coppicing, targeted scrub control and appropriate grassland management. The objective should be to maintain and enhance a diverse woodland structure, balancing areas of coppice regrowth with retained mature trees, scrub habitat and open ground.

A proportion of the woodland remains characterised by declining trees, limited understorey development and reduced ground flora. Over the coming years, selective coppice management should continue, prioritising areas where trees exhibit structural decline or where intervention would improve woodland safety and resilience. Coppicing should continue to be undertaken progressively rather than as a single operation, maintaining a range of woodland age classes and structural conditions.

The vigorous regrowth response of the coppiced vegetation means that management resources are naturally limited, with only a proportion of regrowth requiring active control at any one time. This has resulted in a varied habitat structure, with areas of developing scrub, young woodland regeneration, open ground and unmanaged vegetation patches. This

heterogeneity is beneficial from an ecological perspective, providing a range of habitats and resources for plants, invertebrates, birds and other wildlife.

Based on my observations of the site and the management undertaken to date, I consider that the current management approach is likely to maintain the existing biodiversity value of the site and has the potential to deliver further ecological enhancement through continued development of a structurally diverse woodland and grassland mosaic.

Comparison of Managed vs Unmanaged Woodland*