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Cambridge Sport Lakes

Summary of Habitat Gains and Losses




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1 Background

This report follows the Update on Ecological Assessment and Response to Planning (Mott MacDonald, 2006), which expanded on the Ecology and Nature Conservation Volume of the Environmental Statement (Mott MacDonald, 2005) for the proposed Cambridge Sport Lakes (CSL) development.

The report has been prepared on behalf of the Cambridge Sport Lakes Trust.

2 Scope of this Report

The objectives of this report are to:

- Quantify the habitats within the proposed development site boundary which could be lost as part of the proposed Cambridge Sports Lake development
- Quantify the habitats, which would be created within the proposed development site.
- Review the conservation importance of the habitat losses and gains.

The purpose of the assessment is to examine the gains/losses of the habitats, and not an assessment of the species which may be dependent on these habitats. Species impacts are detailed in our previous report, *Update on Ecological Assessment and Response to Planning* (Mott MacDonald 2006).

3 Habitat Balance Sheet

3.1 Summary of Potential Habitat Losses

According to estimations in our previous report *Update on Ecological Assessment and Response to Planning*, 285 trees are expected to be removed for the proposed development.

The total area of each habitat type found within the proposed development site boundary is presented in Table 3.1. The total area of the proposed development site is 925 000 m², according to Volume 1 of the CSL Environmental Statement (LSI Architects, 2005).

3.2 Summary of Potential Habitat Gains

The type and area of habitats that would be created through the proposed development as described in the Landscape Masterplan drawing (Lovejoy, 2005) is presented in Table 3.1. A brief description of the habitats being created as part of the proposed scheme is provided in Table 3.2.

In our previous assessment, it was proposed that for every specimen tree lost, two trees would be planted. Therefore, 570 specimen trees would be planted on the site to compensate for the estimated losses. This would be in addition to the creation of broad-leaved woodland and conifer plantation.

Table 3.1: Habitat Balance Sheet

Phase 1 Habitat type	Conservation Importance ¹	Unit	Loss ²	Gain ³	Net Change
Broad-leaved woodland	Regional	m ²	1 000	8 600	+ 7 600
Aquatic margins ⁴	Local/Regional	m ²	-	46 000	+ 46 000
Semi-improved neutral grassland	Regional	m ²	6 000	10 000	+ 4 000
Drainage ditch	Regional	m ²	6 000	6 000	-
Open water	Local	m ²	-	440 000	+ 440 000
Broad-leaved plantation woodland	Local	m ²	1 750	-	- 1 750
Species-poor hedge	Local	m ²	2 000	-	- 2 000
Species-rich hedge	Local	m ²	2 250	23 000	+ 20 750
Coniferous Plantation	Local	m ²	-	46 200	+ 46 200
Parkland with specimen trees	Local	m ²	-	109 000	+ 109 000
Arable field	Local	m ²	736 000	-	- 736 000
Scattered scrub planting	Local	m ²	-	86 200	+ 86 200
Specimen trees	Local	No.	285	570	+ 285
Improved grassland & species poor neutral grassland	Negligible	m ²	170 000	46 000	- 124 000
Buildings	Negligible	m ²	-	104 000	+ 104 000
	Total Area of the Scheme	m ²	925 000	925 000	-

¹ The conservation importance of each habitat has been assessed in accordance with the Department for Transport's Transport Analysis Guidance (WebTAG), as shown in Appendix A.

² For the purposes of calculating areas, it was assumed that all ditches were approximately 1 m wide. It should be noted that all measurements are approximate.

³ Gain is estimated as being medium to long-term, five to ten years or more after construction.

⁴ Includes margins around the lakes. The margins around the Storage Lake are expected to become established as good quality aquatic margin habitats.

Table 3.2: Description of Habitat Creations

Phase 1 Habitat Type	Location (s)	Proposed Composition of Planting^(a)
Broadleaf woodland	Periphery of site	Oak <i>Quercus</i> sp. – ash <i>Fraxinus excelsior</i> mix with sub-dominant ash <i>F.excelsior</i> -maple <i>Acer campestre</i> mix.
Open water	Rowing lake	-
Species-rich hedgerows	Site boundaries	Hawthorn <i>Crataegus monogyna</i> , field maple <i>A. campestre</i> , guelder rose <i>Viburnum opulus</i> , dog rose <i>Rosa canina</i> , holly <i>Ilex aquifolium</i> , wild privet <i>Ligustrum vulgare</i> , blackthorn <i>Prunus spinosa</i> .
Aquatic margins	Margins of rowing and storage lake	Common reed <i>Phragmites australis</i> , yellow flag <i>Iris Iris pseudacorus</i> , branched bur reed <i>Sparganium erectum</i> , reed canary grass <i>Glyceria maxima</i> , water lily <i>Nuphar lutea</i> , starworts, <i>Callitriche</i> sp., broadleaved pondweed <i>Potamogeton natans</i> .
Parkland with trees	Open areas across the site	Specimen stands
Neutral Grassland	Areas adjoining lake and buildings, embankments.	Species-rich grass seed mixtures
Coniferous Plantation	Water side areas	Scots pine <i>Pinus sylvestris</i> , hemlock <i>Tsuga</i> sp. etc.
Scattered scrub planting	Along top of mound	Birch, <i>Betula pendula</i> , oak, <i>Quercus</i> sp., goat willow, <i>Salix caprea</i> , gorse, <i>Ulex europaeus</i> etc.
Buildings, paths & sport facilities	Towpath, cycle track, car park etc	-

(a) Location and proposed composition of planting taken from the Landscape Masterplan Drawing (Lovejoy, 2005).

Table 3.3: Summary of Change in Conservation Importance

Conservation Importance	Loss (m²)	Gain (m²)	Change (m²)
Regional	13 000	70 600	+ 57 600
Local	742 000	704 400	- 37 600
Negligible	170 000	150 000	- 20 000

4 Conclusion

The area of the proposed Cambridge Sport Lakes scheme is approximately 925 000 m², of which approximately 742 000 m² is considered to be of local conservation importance, and 13 000 m² of regional conservation importance. The proposed development should result in a net gain of approximately 57 000 m² of regional conservation important habitats. Large areas of improved grassland and arable fields will be replaced by significant areas of parkland with trees, scattered scrub and semi-improved grassland.

In the long-term, there will be a noticeable increase in aquatic margins and broad-leaved woodland habitats (both of regional importance), as well as species-rich hedgerows and coniferous plantation of local importance.

In accordance with the CSL Environmental Statement, we have assumed that all planting would be native provenance stock (where possible sourced locally), and that all habitats would be managed appropriately for the benefit of wildlife.

5 References

Department for Transport (2004) *The Biodiversity Sub-Objective: TAG Unit 3.3.10*. Transport Analysis Guidance (TAG), Department of Transport, December 2004.

Joint Nature Conservation Council (1993) *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. JNCC Publications, Peterborough.

Lovejoy, (2005) *Cambridge Sport Lakes Landscape Masterplan*.

LSI Architects, (2005) *Cambridge Sport Lakes Environmental Statement Volume 1: Introduction*.

Mott MacDonald, (2006) *Update on Ecological Assessment and Response to Planning*.

Mott MacDonald, (2005) *Cambridge Sport Lakes Environmental Statement Volume 4: Ecology & Nature Conservation*.

Appendix A WebTAG Guidelines on Conservation Evaluations

Department for Transport's Transport Analysis Guidance on Conservation Evaluation of Habitats and Species (modified version to encompass IEEM evaluations)

Conservation Category	Criteria for Inclusion
<p>International</p> <p><i>High Importance and Rarity. International Scale and limited potential for substitution</i></p> <p>Conservation importance: Very high</p>	<ul style="list-style-type: none"> • Ramsar Sites (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971) • World Heritage Sites (Convention for the Protection of World Cultural & Natural Heritage, 1972) • Biosphere Reserves (UNESCO Man & The Biosphere Programme) • European Sites (EC Habitats Directive 1992 & UK Habitats Regulations 1994): • Special Areas of Conservation (SACs) • Special Protection Areas (SPAs) • Sites of Community Importance (SCIs) • Possible/Candidate SACs and potential SPAs • Sites hosting habitats/species of (European) Community interest (annexes 1 & 2, Habitats Directive, 1992) • Sites hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979) • Sites hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979) • Biogenetic Reserves under the Council of Europe • European Diploma Sites under the Council of Europe • RSPB Red List species (1996) of global conservation concern. • IUCN critically endangered and endangered species of global conservation concern. • Birdlife Important Bird Area, with species of global importance.
<p>National</p> <p><i>High Importance and rarity, national scale, or regional scale with limited potential for substitution</i></p> <p>Conservation importance: High</p>	<ul style="list-style-type: none"> • Sites of Special Scientific Interest (SSSIs; Wildlife & Countryside Act 1981 and National parks and Access to the Countryside Act 1949) • Sites with Limestone Pavement Orders (Wildlife & Countryside Act 1981) • Nature Conservation Review sites (NCR) • Geological Conservation Review (GCR) sites • Marine Nature Reserves (MNRs) • Areas of Special Protection for Birds (ASPs) • Sites hosting Red Data Book species. • Sites hosting species not covered by the Berne Convention but in schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 • Regionally important sites with limited potential for "substitution" • RSPB Red list species other than those of global conservation concern. • Birdlife Important Bird Area without species of global importance.

Conservation Category	Criteria for Inclusion
<p>Regional</p> <p><i>High or medium importance and rarity, local or regional scale and (limited) potential for substitution</i></p> <p>Conservation importance: Medium</p>	<ul style="list-style-type: none"> • Local Nature Reserves (LNRs; National Parks and Access to the Countryside Act 1949) • Sites of Importance to Nature Conservation (SINCs)/County Wildlife Sites (CWSs)/other local designations • Regionally Important Geological Sites (RIGs) • Important 'inventory' sites (e.g. ancient semi-natural woodland, and grassland, inventories) • Other sites (not described above) with Biodiversity Action Plan (BAP) priority habitats/species • Other natural/semi-natural sites of significant biodiversity importance, not referred to above (e.g. sites relevant to local Biodiversity Action Plan/Natural Area objectives). • RSPB Amber List species.
<p>Local</p> <p><i>Low or medium importance and rarity, local scale.</i></p> <p>Conservation importance: Low</p>	<ul style="list-style-type: none"> • Undesignated sites not in the above categories, but with some biodiversity or earth heritage interest. • Species of local interest which contribute to the overall biodiversity and/or amenity value of the site.
<p>Negligible</p> <p><i>Very low importance and rarity, local scale</i></p> <p>Conservation importance: Very low</p>	<ul style="list-style-type: none"> • Other sites or species with little local biodiversity and earth heritage interest.