

1. Introduction

The broad costings set out in this document aim to provide an estimation of the total cost of delivering habitat targets in Warwickshire, Coventry and Solihull. They are not set project costs and no attempt has been made to cost out specific projects.

As opportunities are identified for maintaining, achieving condition, restoring or expanding a priority habitat, detailed costs for that opportunity should be developed. Actual costs will vary greatly on a site by site or project by project basis, depending on a wide range of factors, as a result specific project costs are likely to greatly vary from the broad, indicative costings provided here.

The source documents used to derive these costings have been used by other LBAPs and for costing delivery of the UK BAP. Where sources use pre-2010 data then an uplift for inflation has been included. The calculations for this are shown in Section 5. RPI Calculations.

Whilst a number of sources were referred to in preparing these costings (see References below), these sources provided the majority of information:

1. **Higher Level Stewardship Handbook (NE 2010)** - this was used in costing 13 habitats and in providing some of the capital items in Section 4. Project Costs for LBAP Delivery. As the rates are current no inflation uplift was applied to these figures. Stewardship schemes contribute significantly to LBAP targets and in some cases, e.g. Arable Field Margins, are likely to be the only route for LBAP delivery.

2. **UKBAP Revising the costs of Delivering Habitat Action Plans (GHK 2006)** - this was used in costing 10 habitats. As the data is from 2006 and uplift for inflation was added to the figures. This document was the outcome of a review of the costs of delivering the UKBAP and provided cost estimates by country. Analysis was undertaken of existing delivery projects as well as using the stewardship figures current at the time.

3. **Vale of Glamorgan Priority Habitat Costing Study (Sturges Ecology 2010)** - this was used in costing 3 habitats. As the data is at least one year old an uplift for inflation was applied to these figures. This document was not used more extensively as many of the relevant costs were obtained from an earlier version of the HLS handbook and from the GHK 2006 documents.

4. **Tranche 2 Action Plans: Cost estimates (UK Biodiversity Group 2002)** - this document was not used in the main costings but was a source of items listed in Section 4. Project Costs for LBAP Delivery. An uplift for inflation was applied to these figures as they are almost 10 years old.

It is not possible to identify a cost that is universally applicable, for example although an estimate of cost of delivering hectares or sites or kilometres of BAP habitat have been provided the actual cost of delivering any given area of any BAP habitat will vary tremendously.

What is the current condition of the habitat, where is the site located, does land need to be purchased, is an ancient meadow being restored from birch scrub or from semi-improved grassland, there are many factors that will affect actual costs. However, for every example where the costs may be an overstatement there will be an example where they are an understatement.

The purpose of this document is to provide a broad indication of the overall costs of LBAP delivery (bearing in mind they do not include any species action plans, a number of local priorities and some national priorities where no costing information was available).

If you have any questions over the information contained within this workbook please contact the Warwickshire, Coventry and Solihull LBAP coordinator via email: LBAP@warwickshire.gov.uk or phone: 01926 412197.

Habitat maintenance, restoration and expansion has been costed for the following UK BAP habitats present in the WCS LBAP area:

Arable Field Margins
Canals
Coastal and Floodplain Grazing Marsh
Eutrophic Standing Waters
Fens
Hedgerows
Lowland Calcareous Grassland
Lowland Dry Acid Grassland
Lowland Heathland
Lowland Meadows
Native Woodland (combined figure all woodland HAP)
Open Mosaic Habitats on Previously Developed Land (OMHPDL)
Ponds
Reedbeds
Rivers
Traditional Orchards
Wood-Pasture & Parkland

The following UK BAP terrestrial habitats do not have targets within the WCS LBAP area:

Blanket Bog
Inland Rock Outcrop and Scree Habitats
Lowland Raised Bog
Mesotrophic Lakes
Oligotrophic and Dystrophic Lakes
Purple Moor Grass and Rush Pastures
Upland Calcareous Grassland
Upland Heathland

The following LBAP habitats have not been costed within this spreadsheet due to lack of source information:

Allotments
The Built Environment (elements are within OMHPDL)
Churchyards & Cemeteries
Gardens
Parks & Public Open Spaces
Quarries & Gravel Pits
Roadside Verges
School Grounds
Scrub & Carr

References:

Forestry Commission (2010) English Woodland Grant Scheme Summary [Online: [http://www.forestry.gov.uk/pdf/ewgs-summary-2010.pdf/\\$FILE/ewgs-summary-2010.pdf](http://www.forestry.gov.uk/pdf/ewgs-summary-2010.pdf/$FILE/ewgs-summary-2010.pdf)]

GHK Consulting Ltd (2006). UK Biodiversity Action Plan: Preparing Costings for Species and Habitat Action Plans. Report to DEFRA and Partners. [Online: www.ukbap.org.uk/librarysearchresults.aspx?ID=528]

GHK Consulting Ltd (2006). UK Biodiversity Action Plan: Preparing Costings for Species and Habitat Action Plans. Revising the costs of Delivering Habitat Action Plans [Online: www.ukbap.org.uk/librarysearchresults.aspx?ID=528]

GHK Consulting Ltd (2006). HAP Costings Annexes. [Online: www.ukbap.org.uk/librarysearchresults.aspx?ID=528]

Natural England (2010) Higher Level Stewardship Handbook. [Online: <http://www.naturalengland.org.uk/ourwork/farming/funding/es/hls/default.aspx>]

Peak District National Parks Authority (2007) Guidelines for regenerating derelict hedgerows [Online: <http://www.peakdistrict.gov.uk/derelict-hedgerows.pdf>]

Plant Wild (2011) Wild Flower Meadow Seed Mix. [Online: <http://plantwild.co.uk/wildflower-meadow-seed-mix/>]

Pond Conservation (2010) Putting a price on your pond creation project and working with contractors [Online: http://www.pondconservation.org.uk/Resources/Pond%20Conservation/Documents/PDF/5_MPP_Sheet6_Sup2_project%20costing%20advice_Mar09.pdf]

Sturgess Ecology (2010) Vale of Glamorgan Priority Habitat Costing Study. Cardiff, Sturgess Ecology [Available as a PDF file]

UK Biodiversity Group (2002). Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats. [Online: www.ukbap.org.uk/librarysearchresults.aspx?ID=528]

RPI figures [where used] are from the CZBI series (for all items excluding housing, index 13th January 1987=100, % change over 12 months) obtained from the Office for National Statistics at: www.statistics.gov.uk/STATBASE/Product.asp?vlnk=2176 (See RPI sheet for multipliers)

Biodiversity Offsetting Costs - Summary Sheet

	per hectare		Combined costs over 30 years maintenance
	Maintain	Create	
GRASSLAND HABITAT			
Coastal and Flood Plain Grazing Marsh	£335	£1,504	£11,554
Lowland Calcareous Grassland	£200	£2,408	£8,408
Lowland Dry Acid Grassland	£200	£1,714	£7,714
Lowland Heathland	£200	£1,304	£7,304
Lowland Meadows	£200	£1,498	£7,498
Average	£227	£1,686	£8,496

	per hectare		Combined costs over 30 years maintenance
	Maintain	Create	
WETLAND HABITAT (PONDS)			
Ponds (large individual pond)	£90	£1,476	£4,176.44
Reedbeds	£60	£1,486	£3,286.38
Fens	£60	£674	£2,473.78
Average	£70	£1,212	£3,312.20

	per hectare		Combined costs over 30 years maintenance
	Maintain	Create	
WOODLAND HABITAT			
Native Woodland	£122	£2,126	£5,775.67
Traditional Orchards	£250	£1,123	£8,623.25
Wood-Pasture and Parkland	£180	£1,502	£6,902.19
Average	£184	£1,584	£7,100.37

	Maintain	Create	Combined costs over 30 years maintenance
HEDGEROWS			
Hedgerow (metre)	£7	£9	£227.50

5. RPI Calculations

**** Content of this sheet is referenced in calculations in the Detailed Target Delivery Costs sheet ****

RPI figures are from the CZBI series (for all items excluding housing, index 13th January 1987=100, % change over 12 months) obtained from the Office for National Statistics at:
www.statistics.gov.uk/STATBASE/Product.asp?vlnk=2176

Source Year for figures	RPI		Total RPI to end 2010	Multiplier	Source Year for figures
2000	1.5	1.5%	26.4%	1.264	2000
2001	1.5	1.5%	24.9%	1.249	2001
2002	1.4	1.4%	23.4%	1.234	2002
2003	1.7	1.7%	22.0%	1.220	2003
2004	1.2	1.2%	20.3%	1.203	2004
2005	1.6	1.6%	19.1%	1.191	2005
2006	2.6	2.6%	17.5%	1.175	2006
2007	2.7	2.7%	14.9%	1.149	2007
2008	4.4	4.4%	12.2%	1.122	2008
2009	2.6	2.6%	7.8%	1.078	2009
2010	5.2	5.2%	5.2%	1.052	2010

4. Project Costs for LBAP Delivery

There are a range of other costs that may be included with LBAP actions beyond those delivering the habitat targets of maintain, achieve condition, restore and expand. For example awareness raising through an event, producing a leaflet or training session. This sheet lists unit costs not separately listed in the main Detailed Target Delivery Costs sheet.

For specific habitat management activities and capital costs please refer to guides such as the latest Spon's Landscape and External Works Price Book, Higher Level Stewardship Handbook or details of various grant schemes, items included below are just a subset.

**** Work in progress with line items added as they are identified ****

Item	Unit	Cost (inc. RPI uplift to current prices)	Source
People and Publications			
LBAP Coordinator	Per day	£150	LBAP_Coord_Day_Rates.xls
One day conference/workshop	Per day	£1,234	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Cost of establishing a detailed woodland monitoring programme	Per site	£24,680	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Annual cost of monitoring a woodland site (once established)	Per site	£3,085	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
One day training event	Per day	£1,234	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Preparation and production of a technical/advisory leaflet (A4, full colour 2000 print run)	-	£3,702	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Preparation and production of a technical/advisory handbook (5k to 7k for text and 8k to 10k for publication)	-	£18,510	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Three year post doctoral study or equivalent research contract	-	£111,060	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Three year PhD study	-	£62,934	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Two year research programme	-	£61,700	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Research contract to develop methodology	-	£12,340	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
One year MSc based research contract	-	£6,170	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Review based research contract	-	£6,170	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Project officer	Per annum	£30,850	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Undertake vegetation survey, contractor for Phase 2	Per ha	£62	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Prepare and implement management plans	Per plan	£3,085	UKBG Tranche 2 Action Plans: Cost estimates - terrestrial and freshwater habitats (2002)
Boundaries			
Creation of new earth banks NEW in 2010	Per metre	£11.00	HLS Handbook 2010 EC
Ditch, dyke and rhine restoration	Per metre	£2.90	HLS Handbook 2010 DR
Trees, Hedgrows and Orchards			
Orchard tree guard (cattle proof)	Each	£36.00	HLS Handbook 2010 TOF
Orchard tree guard (sheep proof)	Each	£32.00	HLS Handbook 2010 TOS
Orchard tree pruning	Each	£17.00	HLS Handbook 2010 FP
Tree surgery, minor – to include minor pollarding	Each	£43.00	HLS Handbook 2010 TS1
Tree surgery, major – to include major pollarding	Each	£89.00	HLS Handbook 2010 TS2
Tree removal	Per m ²	£25.00	HLS Handbook 2010 TRE
Fencing			
Sheep fencing	Per metre	£1.80	HLS Handbook 2010 FSB/H
Post and wire fencing	Per metre	£1.20	HLS Handbook 2010 FW/B
Deer fencing	Per metre	£4.00	HLS Handbook 2010 FD
Rabbit fencing supplement	Per metre	£1.50	HLS Handbook 2010 FR/B
Permanent electric fencing	Per metre	£1.20	HLS Handbook 2010 FPE
Fencing supplement – difficult sites	Per metre	£2.50	HLS Handbook 2010 FDS
High-tensile fencing	Per metre	£1.25	HLS Handbook 2010 FHT
Scrub Management			
Scrub management – base payment	Per annum	£76.00	HLS Handbook 2010 SS
Scrub management – less than 25% cover	Per hectare	£228.00	HLS Handbook 2010 SA
Scrub management – 25% to 75% cover	Per hectare	£376.00	HLS Handbook 2010 SB
Scrub management – over 75% cover	Per hectare	£583.00	HLS Handbook 2010 SC
Public Access			
Hard standing for car parking	Per m ²	£13.00	HLS Handbook 2010 CP
Hard standing for disabled paths	Per m ²	£15.00	HLS Handbook 2010 ADC
Bridle gate	Each	£220.00	HLS Handbook 2010 GB
Kissing gate	Each	£245	HLS Handbook 2010 GK
Kissing gate for disabled access	Each	£290	HLS Handbook 2010 GD
Dog gate	Each	£35	HLS Handbook 2010 ADG
Timber stile	Each	£100	HLS Handbook 2010 ST
Wooden footbridge	Each	£315	HLS Handbook 2010 FB
Bench	Each	£115	HLS Handbook 2010 B
Wetlands			
Creation of ditches – rhines and dykes	Per metre	£4	HLS Handbook 2010 WDC
Creation of gutters	Per metre	£2	HLS Handbook 2010 WGC
Soil bund	Each	£149	HLS Handbook 2010 SI
Culvert	Each	£153	HLS Handbook 2010 CP
Timber sluice	Each	£314	HLS Handbook 2010 S2
Brick, stone or concrete sluice	Each	£960	HLS Handbook 2010 S3
Creation of temporary ponds – first 100 m2	Per m ²	£1	HLS Handbook 2010 SCR
Creation of temporary ponds – over 100 m2	Per m ²	£1	HLS Handbook 2010 SCP
Species Related Project Costs			
Otter holt – log construction	Each	£108	HLS Handbook 2010 OH1
Otter holt – pipe and chamber construction	Each	£203	HLS Handbook 2010 OH2
Bat/bird box	Each	£28	HLS Handbook 2010 SBB
Bird strike markers	Each	£2	HLS Handbook 2010 SBS
Small mammal boxes	Each	£10	HLS Handbook 2010 SSM
Badger gates	Each	£27	HLS Handbook 2010 SBG