Management Plan:

Celandine Route (Cuckoo Hill)

Local Wildlife Site

April 2011 – March 2016

London Borough OF Harrow

March 2011

Harrow COUNCIL
LONDON

Contents:

1. Description

The site is located more or less centrally along the western boundary of the London Borough of Harrow south of Cuckoo Hill Road, approximately 0.7 km south-west of Pinner Village and Pinner Metropolitan Line London Underground Station, at national grid coordinates TQ 115, 890 (Figure 1). The Celandine Route is part of the River Pinn at West Harrow Local Wildlife Site (LWS), recognised in Harrow's Unitary Development Plan as of Local Importance for Nature Conservation. The site itself constitutes a small part of the 19 km 'Celandine Route' along the River Pinn from Pinner to the Grand Union Canal at Cowley, which passes through a number of green spaces, conservation areas and wildlife havens. The main entrance to the Celandine Route (Cuckoo Hill) is from Crambourne Drive near its junction with West End Lane. There is a second entrance from Barnhill (just over the borough boundary in LB Hillingdon). Three composite compartments are recognised (Figure 2). These are described below:

Main Area – Compartment 1 (0.80 ha)

1) This parcel, of mixed native and non-native broadleaved secondary woodland, comprises mature scattered trees; sycamore and ash are abundant to locally dominant. In addition, young trees and saplings are plentiful, joining frequent hawthorn, blackthorn and English elm in the understorey. Other trees and shrubs include the occasional field maple, horse-chestnut, common privet, cherry laurel, pedunculate oak and bramble. Additionally, there are the odd specimens of Norway maple, holly, plum, grey willow, snowberry and yew.

   Cow parsley, cleavers, ivy and stinging nettle are abundant components of the ground flora. Other species include frequent false-brome, enchanter's-nightshade, wood avens, hogweed and Yorkshire fog. There are the occasional clumps/individuals of ground elder, garlic mustard, hedge bindweed, great willowherb, red campion and hedge woundwort.

   Two invasive weed species listed under Schedule 9 under the Wildlife and Countryside Act 1981 (& amendments) also occur in this compartment: Japanese knotweed (occasional) and variegated yellow archangel (rare).

River Pinn and banks – Compartment 2 (0.14 ha)

2) This parcel is located along the southern edge of the site. The stream is heavily shaded and as a result there is no submerged vegetation apparent other than algae. On the banks ivy is dominant and ground ivy abundant. Hart's-tongue fern, cow parsley and false brome are frequent and well distributed. Clumps of, the non-native, winter heliotrope and occasional pendulous sedge are joined by male fern in these damp shady conditions.

   Three invasive weed species listed under Schedule 9 under the Wildlife and Countryside Act 1981 (& amendments) also occur in this compartment: Japanese knotweed (occasional), Indian Balsam and variegated yellow archangel (rare).

Cuckoo Hill Allotment Site – Compartment 3 (0.64 ha)

3) This is a well used allotment site with plot holders growing a variety of fruit, vegetables and flowers. Like most allotment sites this contains pockets of rough grassland, tall herbs and ruderals between plots.

2. Important features on site

A number of locally important features which are crucial to the management of this site have been identified:

Secondary woodland

a) The secondary woodland of the site with its array of native and more exotic trees and shrubs is of local significance in Harrow and supports a variety of birds and invertebrates. Woodland is a London and Harrow LBAP[1] habitat.

Dead wood

b) Dead wood of all types, but particularly standing is a valuable habitat and asset for a variety of fauna. For example, woodpeckers, nuthatch and treecreeper are often dependent on this resource for foraging and nesting. Additionally, a variety of insects are associated with dead wood and many species of fungi are completely dependent upon it. Dead wood is a Harrow LBAP habitat. This habitat is often lost, particularly in urban areas, when sites are tidied up.

Running water

c) Many rivers and streams within Harrow are undergrounded (piped) and there are no major water courses is the borough (although tributaries of the Rivers, Brent, Crane and Colne rise in the area). Only about a quarter of a one percent of the borough's surface area is attributed to 'running water'. Additionally many Harrow watercourses flow through concrete channels and as a result are of limited biodiversity value. Running and standing water is a Harrow LBAP habitat

Allotments

d) Gardens and allotments are a Harrow Biodiversity Action Plan (BAP) habitat. The value of allotments in their traditional mode is considerable - they provide the opportunity for eating healthy, locally-produced food and for healthy exercise. However, most allotments also attract a variety of wildlife including frogs, toads, slow worms, hedgehogs and various birds which help rid the site of pest species. Cuckoo Hill Allotments are also part of the River Pinn at West Harrow Site of Local Importance for Nature Conservation.

Birds

e) A variety of birds are known from the site. Included are a number of London/UK BAP Priority Species and Species of Conservation Concern e.g. song thrush and kingfisher (also a W&CA[2], Schedule 1, Part 1 species). The varied foliage of the area's trees and shrubs proves attractive to small birds, both as feeding and nesting areas.

Common Frog

f) Harrow has a Species Action Plan for all amphibians and reptiles (herpetofauna) as part of its LBAP

[1] LBAP = Local Biodiversity Action Plan

[2] W&CA = Wildlife and Countryside Act 1981 (& amendments)

3. Aims and Objectives

Management should:

- reflect species and habitat targets set in the UK and local BAPs
- maintain and enhance the general qualities of existing habitats whilst re-establishing others, appropriate to the site
- promote appreciation of site biodiversity by the public

This should be achieved via:-

1) Maintenance of woodland, particularly the understorey (i.e. shrub to ground layers) to:

   - Prevent selected areas of woodland ground flora from becoming progressively more wooded
   - Maintain/increase floral (and with it faunal) diversity of woodland and associated areas

2) Ensuring an adequate quantity of dead wood microhabitats, both standing and fallen

3) Maintaining/improving wet and aquatic (running water) habitats associated with the River Pinn

4) Encouraging and supporting allotment holders to manage the Cuckoo Hill site in a wildlife friendly manner wherever possible

5) Ensuring that the site is managed appropriately as it is know to support a population of common frogs

6) The control/eradication of invasive weeds specifically listed under Schedule 9 of the W&CA.

7) Deterring littering on site and removal of rubbish as and when required

8) Improving safety standards and interpretation, to encourage educational use and the biological recording on the site

4. Management Prescription

Recommended Action

Compartment 1

a) Create small embayments, each of 10-15 m^2 area, in the woodland shrub layer aside the central path by coppicing shrubs and young trees between November and February (inclusive). The total area should be no greater than 50 m^2. Timber so removed should be stacked in habitat piles together with any natural debris.

b) Generally, woodland and trees will be maintained via non-intervention over the period of the management plan except in the case of health and safety concerns.

c) Dead wood should remain on site within wooded areas. Standing dead wood (e.g. monoliths) must be considered were safe to retain. Smaller logs should be chipped and used on muddy part of pathways whilst larger trunks and branches can remain *in situ* providing they do not compromise access or health and safety of site users.

d) The replanting of trees and shrubs should be undertaken between November and February (inclusive) as and when the need arises - only native species should be used.

e) There are some small clumps of Japanese knotweed east of the bridge crossing the River Pinn from Barnehill. Treatment with glyphosate herbicide is recommended – spraying in May/June and again July/August (or if by glyphosate injection late in summer or early autumn) and in subsequent years as required. If located on or near the bank of the River Pinn the site owner (Harrow Council) must fill in an *Agreement to use herbicides in or near water* (Form AqHerb01) issued by the Environment Agency and its approval received in writing.

f) There are several patches of variegated yellow archangel east of the bridge, crossing the River Pinn, from Barnehill. Glyphosate is a suitable weedkiller to use as it is taken into the plant's perenniating stems. The herbicide should be sprayed or painted onto vegetation (depending on the situation). Application is most effective when the plants are growing vigorously (May to September). Ensure maximum leaf coverage (the greater the area of leaf treated the more effective the treatment). If located on or near the bank of the River Pinn the site owner (Harrow Council) must fill in an *Agreement to use herbicides in or near water* (Form AqHerb01) issued by the Environment Agency and its approval received in writing (allow 50 days before work commences).

Compartment 2

g) There are some small clumps of Japanese knotweed east of the bridge crossing the River Pinn from Barnehill on the banks of the watercourse. Spot treatment with glyphosate herbicide is recommended – applying in May/June and again July/August and in subsequent years as required. The site owner (Harrow Council) must fill in an *Agreement to use herbicides in or near water* (Form AqHerb01) issued by the Environment Agency and its approval received in writing.

h) Small quantities of Indian (Himalayan) balsam occur on the river banks. Hand-pulling before seeding (May to June) is recommended. The plant has a shallow fleshy root system that can be easily pulled-up. An advantage of hand-pulling is the certainty that the plant will

not regrow and there is no risk of pollution. However, it is potentially very labour intensive (and consequently can only be carried out on small areas). This method lends itself to utilising volunteer support.

Compartments 1 and 2

i) Interpretive signage explaining management, wildlife and other features of interest should be sited at strategic locations aside paths (subject to funding).

j) Litter should be cleared as and when required. This will make the site appear cared for and less likely to be vandalised or littered.

k) A 'Nip and Tuck' patrol by Council staff should be conducted on a weekly basis to pick up essential repairs and potential public safety issues

Compartment 3

l) No management is proposed for Compartment 3, as the site comes under the management of individual plot holders and Harrow in Leaf. However, leaflets highlighting the benefits of wildlife and wildlife friendly practice should be distributed to the plot holder via Harrow in Leaf.

Compartments 1,2 and 3

m) Local wildlife experts and groups should be encouraged to undertake regular biological survey and monitoring. This could be promoted at Harrow in Leaf, Greener Harrow and Harrow Heritage Trust meetings. Records should be passed on to Greenspace Information for Greater London (GiGL).

Five-Year Management Plan: Schedule and Summary of Projects						
Compartment(s)	**Project**	**Priority**	**Notes**	**Year(s)**	**Timing**	**Para.**
1	Creating embayments in woodland each of 10-15m2 (totalling approx 50 m2.	1		1 to 5	Nov-Feb inclusive	4a
	Management of woodland and trees by non-intervention (except H&S issues)	1		Ongoing	a/r	4b
	Dead wood to remain on site e.g. monolithing trees, habitat piles etc.	2		1 to 5	Nov-Feb inclusive (except H&S)	4c
	Replanting of trees and shrubs with native species applicable to the area	3	e.g. oak, ash, hawthorn and blackthorn	1 to 5	Nov-Feb a/r	4d
	Fill in and send Environment Agency Form AqHerb01 (*Agreement to use herbicides in or near water)* *include three items below	1		2	Feb-Mar	4e
	Control of Japanese knotweed*	1	Use glyphosate	2 and 3	May/Jun and again Jul/Aug	4e
	Control of variegated yellow archangel*	1	Use glyphosate	2 and 3	May-Sep	4f
2	Control of Japanese knotweed*	1	Use glyphosate	2 and 3	May/Jun and again Jul/Aug	4g
	Control of Indian (Himalayan) Balsam	2	Hand-pulling	Ongoing	May-Jun	4h
1 and 2	Access, recreation and interpretation	3	Erect interpretive signage	2 or 3	a/r	4i
	Removal of litter	1	Site will appear safer and more attractive	Ongoing	a/r	4j

	Nip and Tuck' patrols and Minor Repairs	1	Regular patrols to identify potential problems and maintain a reassuring presence for the public	Ongoing	Weekly	4k
			Minor repairs	Ongoing	Monthly	
3	Allotment site (Management by plot holders)	2	Leaflet on wildlife friendly practices to Harrow in Leaf	1 to 2	Winter 2011-2012	4l
1,2 and 3	Encourage biological recording	3	Promotion at Harrow in Leaf, Greener Harrow and HHT meetings	Ongoing	a/r	4m

a/r=as required

Maps and plans

Figure 1: Location Celandine Route

Figure 2: Management Compartments

Appendices

Appendix 1: Vascular Plant List (Surveyed 2009)

Appendix 2: Management plan projects: labour and funding

Appendix 1: Vascular Plant List/Fauna (Surveyed 2010)

Celandine Route

Scientific Name	Common Name	DAFOR	Qualifiers	Notes
VASCULAR PLANTS				
Acer campestre	Field Maple	O	TY	
Acer platanoides	Norway Maple	R	R	
Acer psuedoplatanus	Sycamore	D	STY	
Aegropodium podagraria	Ground Elder	O		
Aesculus hippocastanum	Horse-chestnut	O	Y	
Aethusa cynapium	Fool's-parsley	R		
Alliaria petiolata	Garlic Mustard	O		
Allium ampeloprasum var. porrum	Leek	R	G	Disused (eastern) part of Allotments
Anisantha sterilis	Barren Brome	O		
Anthriscus sylvestris	Cow Parsley	A		
Arrhenatherum elatius	False-oat Grass	O		
Brachypodium sylvaticum	False-brome	F		
Calystegia sepium	Hedge Bindweed	O		
Campanula sp	Bellflower	R		Banks of River Pinn
Carex pendula	Pendulous Sedge	O		
Circaea lutetiana	Enchanter's-nightshade	F		
Crataegus monogyna	Hawthorn	F		
Cupressus sp.	Cypress sp.	O	CET	
Dactylis glomerata	Cock's-foot	O		
Dryopteris filix-mas	Male Fern	O		
Elytrigia repens	Couch-grass	O		
Epilobium cilliatum	American Willowherb	R		
Epilobium hirsutum	Great Willowherb	O		
Epilobium montanum	Broad-leaved Willowherb	R		
Fallopia japonica	Japanese Knotweed	O		W&C Act, Schedule 9 (Invasives)
Festuca rubra	Red Fescue	O		
Fraxinus excelsior	Ash	D	STY	
Galium aparine	Cleavers	A		
Geum urbanum	Wood Avens/Herb Bennet	F		
Glechoma hederacea	Ground Ivy	O		
Hedera helix	Ivy	A		
Heracleum spondylium	Hogweed	F		
Holcus lanatus	Yorkshire Fog	F		
Ilex aquifolium	Holly	O	Y	
Impatiens glandulifera	Indian Balsam	R		W&C Act, Schedule 9 (Invasives)
Lamium galeobdolon argentatum	Yellow Archangel	R	CG	W&C Act, Schedule 9 (Invasives)
Lapsana communis	Nipplewort	O		
Ligustrum vulgare	Common Privet	O		
Lolium perenne	Perennial Rye-grass	O		
Petasites fragrans	Winter Heliotrope	O	C	Banks of River Pinn
Phyllitis scolopendrium	Hart's-tongue	F	W	Banks of River Pinn
Poa nemoralis	Wood Meadow-grass	R		
Poa pratensis	Smooth Meadow-grass	F		

Prunus domestica	Plum	R		
Prunus laurocerasus	Cherry Laurel	O		
Prunus spinosa	Blackthorn	F		
Quercus robur	Pedunculate Oak	O	T	
Ranunuculus bulbosus	Bulbous Buttercup	O		
Ranunculus repens	Creeping Buttercup	O		
Rheum rhaponticum	Rhubarb	R	CG	Disused (eastern) part of Allotments
Rosa spp.	Garden Roses	R	G	
Rubus fruticosus agg.	Bramble	F		
Rumex conglomeratus	Clustered Dock	O		
Rumex crispus	Curled Dock	R		
Rumex objusifolius	Broad-leaved Dock	O		
Salix cinerea	Grey Willow	R		
Sambucus nigra	Elder	F		
Silene dioica	Red Campion	O		
Sonchus oleraceus	Smooth Sow-thistle	O		
Stachys sylvatica	Hedge Woundwort	O		
Symphoricarpus albus	Snowberry	R		
Taraxacum sp.	Dandelion	O		
Taxus baccata	Yew	R	Y	
Ulmus glabra	Wych Elm	R		
Ulmus procera	English Elm	F		
Urtica dioica	Stinging Nettle	A		
FAUNA				
Birds	Blackbird			
	Chiffchaff			
	Kingfisher			
	Magpie			
	Song Thrush			
	Woodpigeon			
Amphibians	Common Frog			Froglets
Odonata	Common Blue Damselfly			
Lepidoptera (Butterflies)	Comma			
	Green-veined White			
	Large White			
	Meadow Brown			
	Speckled Wood			

DAFOR Scale:
D=Dominant
A=Abundant
F=Frequent
O=Occasional
R=Rare

Qualifiers:
E=Edge
M=Mature tree
S=Sapling
Y=Young tree
W=Wet area

Appendix 2: Management plan projects: labour and funding

Compartment(s)	Project	Period	Notes	Delivery Agent	Cost (£)	Funding
1	Creating embayments in woodland each of 10-15m^2 (totalling approx 50 m^2	annual		BTCV Volunteers	650 3,250	LBH
	Management of woodland and trees by non-intervention (except H&S issues)	a/r	£160 tree risk assessment £800 tree work	PRM	960 4,800	LBH
	Dead wood to remain on site e.g. monolithing trees, habitat piles etc.	annual		PRM/ Contractor		LBH
	Replanting of trees and shrubs with native species applicable to the area	a/r		BTCV Volunteers	575 575	LBH
	Fill in and send Environment Agency Form AqHerb01 (*Agreement to use herbicides in or near water)* *include three items below	One off		PRM/ Biodiversity Officer	170 170	LBH
	Control of Japanese knotweed*	2/year for 2 years	Use glyphosate	PRM	200 800	LBH
	Control of variegated yellow archangel*	2/year for 2 years	Use glyphosate	PRM		LBH

2	Control of Japanese knotweed*	2/year for 2 years	Use glyphosate	PRM		LBH
	Control of Indian (Himalayan) Balsam	1/year for 2 years	Hand-pulling	BTCV Volunteers	325 650	LBH
1 and 2	Access, recreation and interpretation	One off	Design & Erect interpretive signage	Biodiversity Officer Contractor	1,000 1,000	S to F
	Removal of litter	a/r	Site will appear safer and more attractive	PRM	XXXX	LBH
	Nip and Tuck' patrols and Minor Repairs	Weekly (1 hour/week)	Regular patrols to identify potential problems and maintain a reassuring presence for the public	PRM	1152 5,760	LBH
		Monthly (1 hour/month up to 6 hours/year	Minor repairs	PRM	300 1,500	LBH
3	Allotment site (Management by plot holders)	One off input from Biodiversity Officer	Leaflet on wildlife friendly practices to Harrow in Leaf	Biodiversity Officer	100 100	LBH
1,2 and 3	Encourage biological recording	One off input from Biodiversity Officer	Promotion at Harrow in Leaf, Greener Harrow and HHT meetings	Biodiversity Officer	200 200	LBH

Cost (£):
Black type = one off or cost/year
XXXX= to be filled in by PRM

£18605 over the five years period of the Management Plan including £4,800 contingency for tree work and £1,000 subject to funding (S to F). £800 for 'Control of Japanese knotweed' includes all herbicide costs. Needs cost of litter clearance to be added to total

PRM = Public Realm Maintenance
LBH = London Borough of Harrow
GH = Greener Harrow
HHT = Harrow Heritage Trust.
S to F = Subject to Funding
PBC = Pinner Bowling Club