

# KINGSTON POOL COVERT (SOUTH) HABITAT MANAGEMENT PLAN 2017 - 2022



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## Executive Summary

Kingston Pool Covert LNR is 4.5ha of woodland in Stafford. The covert has many typical species of woodland plants and birds. In order to maintain the wood, management is required. A detailed appraisal of the work can be found in the text but in summary, approximately £1500 is needed annually for:

- Path work
- Scrape creation
- Tree works

By managing the Borough's natural assets the Council is following national and local policy set out in:

*NERC Act 2006 – Section 40 & 41*

*Corporate Plan – Cleaner, Greener, Safer.*

# 1. Introduction

The site has free and open access. There are three main access points, which are linked by two sections of surfaced footpath. The main footpath runs north-south through the woodland on the western side of the Kingston Brook leading from the Weston Road to Birkdale Drive. The second footpath, which goes from the Birkdale Drive entrance to another access point adjacent to the Sewage Pumping Station on the Tixall Road, marks the southern boundary of the site. In addition to these surfaced footpaths and main access points there are numerous other informal access points and desire lines on both sides of the woodland.

<b>Name:</b> Kingston Pool Covert (South)	<b>Total area:</b> approx. 4.5 hectares	
<b>Grid reference:</b> SJ 944 235	<b>OS Map:</b> Explorer 244 (6)	1:25,000
<b>Ownership:</b> Stafford Borough Council		
<b>Local Planning Authority:</b> Stafford Borough Council		
<b>District:</b> Stafford Borough		
<b>Conservation Status:</b> Grade 1 Site of Biological Importance (SBI), Local Nature Reserve (LNR).		

**Management History:** This document updates and replaces the 2005-2009 Management Plan, which has directed management at the site since its formal declaration as an LNR in 2006.

# 2. Site description

Kingston Pool Covert (South) is an area of relatively undisturbed woodland on the eastern fringe of Stafford. When heading out of Stafford on the A518 Weston Road the woodland can be found on the right hand side of the road just before you reach the roundabout at the university. There is another area of woodland- Kingston Pool Covert (North) on the left hand side of the road, which is owned and managed by a local residents' group.

The woodland of Kingston Pool Covert (South) has a fairly open canopy and is dominated by mature crack willow and alder, with scattered mature sycamore. The understorey contains a large number of young "leggy" sycamore and ash trees together with smaller numbers of other woody species including hawthorn, holly, wych elm, hazel and elder. Due to the age of the mature trees and the growth habit of crack willow there is a great deal of standing and fallen deadwood within the woodland.

The woodland ground flora is dominated by vigorously growing species such as common nettle, cleavers and ground elder. Even so, a variety of ferns and fungi can be identified throughout the site and there are also pockets of notable species such as lords-and-ladies, three-cornered garlic and marsh marigold. Garden escapes such as bluebells and daffodils can also be found within the woodland, although they are mainly confined to the edges of the site and along the main footpaths. A variety of birds, amphibians and insects

have been identified in the woodland. There is evidence of historic water vole burrows in the banks of the Kingston Brook, which runs through the centre of the woodland.

In addition to the brook running through the centre of the site there are several particularly wet areas within the woodland, which generally coincide with old drainage ditches. Wetland species such as yellow flag iris, lesser-pond sedge and soft rush are present in these areas.

### 3. Management objectives

Local Nature Reserves are a very important part of our heritage and it is important that we treat them as such. We want to encourage and enhance biodiversity within our Borough and encourage as many of our residents to visit and to enjoy our LNR's.

- To maintain and enhance the woodland and ensure the successful natural regeneration of appropriate tree species within the woodland.
- To monitor the safety of trees, particularly those near roads and paths.
- To maintain and enhance the ground flora of the woodland.
- To monitor species on site through regular surveying
- To maintain and enhance, and where possible create or restore, wetland features within the woodland.
- To manage the site appropriately for Biodiversity Action Plan species.
- To enhance the educational value of the site and increase the number of educational visitors.
- To contribute towards achieving the aims, objectives and targets that are identified in the UK Biodiversity Action Plan, the Staffordshire Biodiversity Action Plan, the Stafford Borough Biodiversity Strategy, the Stafford Borough Local Agenda 21 Strategy and the Stafford Borough Community Plan.

#### 3.1 Table of Main Management Tasks

<b>Work</b>	<b>Date</b>
Survey Work	Spring/Summer
Path work	Summer
Scrape/ponds	Autumn
Tree works	Winter
Litter picks	All year

### 4. Main management operations

This section details the main management operations that are required to protect and enhance the biodiversity of the woodland and also maintain and increase its community amenity value. A new management plan should be produced during 2014 to succeed this document. This current plan should be monitored throughout its 5-year lifetime and should

be revised at any time during that period, if necessary, to provide greater protection to the important habitats and species that are found on this site.

## 4.1 Woodland Management

Kingston Pool Covert (South) is primarily an area of broadleaved semi-natural wet woodland. Many of the trees within the woodland are now very mature and the crack willows (*Salix fragilis*) in particular are now beginning to fall at an increased rate. A number of the older trees have partially exposed root systems, which indicates that the ground level within the wood has dropped as a result of reduced water levels due to the installation of drainage channels. Due to the factors above many trees were assessed as being a Health & Safety risk and therefore works are planned to make them safe.

### 4.1.1 General principles

- Many of the mature trees within the woodland are of a similar age and the crack willows in particular are now overly mature. In recent years several large willows have fallen within the woodland and whenever there are strong winds there is the possibility that another one will come down. As a result significant open areas are now developing within the woodland. Unfortunately because the site is drying out to some degree it may not be possible for the old wet woodland habitat to survive. Although large-scale tree management works within this semi-natural habitat would not be desirable some active tree management will be required to maintain a healthy structural diversity within the woodland.
- Natural regeneration of native wet woodland trees species will be encouraged as much as possible to maintain the local provenance of the tree stock in Kingston Pool Covert (South). In parts of the woodland where natural regeneration is successfully occurring, it may be necessary to carry out some tree thinning to ensure that in the long term healthy mature trees continue to develop within the woodland. At the moment there are sections of the wood where young saplings are growing in such close proximity that they are developing into very tall, but very weak, trees as they race each other upwards towards the canopy. Dense natural regeneration should be identified at an early stage so that there is the possibility to transplant selective saplings to parts of the wood where natural regeneration is less successful. Where trees are too mature to transplant then selective coppicing will be required. If small amounts of coppicing are carefully carried out each year then a good structural diversity will be maintained within the woodland. Planting cuttings taken from the existing willow trees within the woodland is a technique that could be used to assist the regeneration of willow trees.
- There is a high level of young natural regeneration of sycamore trees within Kingston Pool Covert (South). There are a number of large sycamore trees within the woodland so this species has clearly been present at this location for a significant period of time. However, it is important to ensure that the sycamore trees do not suppress the growth of other less vigorous species. This invasive, non-native, tree species has the potential to significantly affect the composition of woodlands if left unchecked. Consequently, when coppicing/thinning of natural regeneration is required sycamore trees should, in general, be selectively removed. Sycamore trees should not be transplanted to other parts of the woodland.
- Parts of the root system of several mature trees have been exposed as a result of the ground surface settling. In this location the most likely cause is a reduction in surface or sub-surface run-off into the woodland as a result of housing developments around

the woodland during the last 30 years. Surface drainage from housing developments on both the western and south-eastern side of the woodland are piped or drained straight into the Kingston Brook. Previously most of this water would have flowed into the woodland via natural run-off or engineered field drainage systems. The only natural drainage into the woodland can now come from a field adjoining the north-east section of the woodland. Interestingly this area currently has the most diverse ground flora in the entire woodland, including a significant amount of lords and ladies (*Arum maculatum*). If this field is ever developed for housing or other purposes it is essential that some form of sustainable urban drainage is incorporated to maintain water flow through the woodland. Drainage should not be directly into the Kingston Brook.

- Wherever possible lying deadwood will be retained within the woodland and allowed to decompose naturally. Deadwood such as this makes an important contribution to the local biodiversity by providing a habitat and food source for a variety of species including numerous insects and fungi. In general lying deadwood should only be removed or chipped if it blocks a footpath or could potentially suppress notable species of ground flora.
- Standing deadwood should also be retained if possible. Woodpeckers are often seen in the woodland and there is a lot of evidence of these birds using the existing standing deadwood on the site. All three species have been observed in the wood. However, there are obviously potential health and safety risks in relation to standing deadwood, particularly if it is located near to surfaced footpaths or the perimeter of the site. In addition, “hung up” trees (i.e. trees that have fallen but which have not reached the ground as they have been caught by the branches of surrounding trees) pose an equally significant risk. An arboricultural assessment was made of all standing deadwood and “hung up” trees in the woodland in 2009. Trees considered to pose a Health and Safety risk to site users or neighbouring residences were expected to be felled in early 2010. Some deadwood should be left on the ground within the woodland to provide habitat diversity and cuttings made into habitat piles.

#### **4.1.2 Trees alongside footpaths and roads and overhanging the perimeter**

- Assessment of trees that are located alongside either of the surfaced footpaths or on the perimeter of the site should be made regularly. Any necessary works should be carried out to ensure the health and safety of the general public.
- As previously stated natural regeneration of native woodland tree species will generally be encouraged throughout the woodland. However, alongside the two surfaced footpaths any such regeneration may need to be controlled. It is important to maintain satisfactory lines of sight along these footpaths and to ensure that overgrowing branches do not obstruct them. Selective annual coppicing of scrub/trees alongside the footpaths should be undertaken as required.
- In places along the main north-south footpath there are currently some large sections of timber that are the remnants of fallen trees. Although laying deadwood will generally be left to naturally decompose in the woodland it may be necessary to carry out some work in these specific cases to ensure that the footpath wide is satisfactory and that lines of sight are acceptable.

#### **4.1.3 Native Black Poplars**

- The Black Poplar (*Populus nigra ssp. betulifolia*) is a rare native British tree, which is naturally found on lowland river floodplains and is therefore suited to the conditions in

Kingston Pool Covert. Black poplars are currently present within Kingston Pool Covert (North). Native black poplars are now very rare because the remaining mature trees are not producing saplings. This is because their seeds need very specific wet, muddy ground conditions to successfully grow. However, in the last 300 years suitable conditions for the establishment of these majestic trees have virtually disappeared because of changing farming practices and land drainage. Some black poplars still survive locally and to promote the survival of this species Staffordshire County Council are growing new trees by taking cuttings from the remaining mature trees. The native black poplar is a Staffordshire Biodiversity Action Plan species.

- Suitable planting locations for at least three native black poplar saplings should be identified within Kingston Pool Covert (South). Native black poplar saplings should then be obtained, planted and monitored to ensure that they establish successfully. Removal of competing vegetation should be carried out regularly for at least the first two years after planting. The use of tree shelters may attract vandalism on this site so should be avoided unless deemed essential. Further native black poplar planting could be carried out in additional suitable locations if further saplings could be obtained.

#### **4.1.4 Other tree management tasks**

- Beneath the main tree canopy there is an understorey that contains a variety of young trees and scrub, including hawthorn, holly, hazel, wych elm, wild rose and elder. This mixed species vegetation provides a valuable diversity of habitat within the woodland. The trees/scrub provide a winter food source of berries (rose hips, haws, etc.), as well as potential spring cover for nesting birds. This habitat should be maintained.
- Whenever possible ropes, etc. should be removed from the branches of trees, although only if it is safe to do so. Streetscene are able to undertake this work if needed.
- Bird boxes and bat boxes could be installed in appropriate locations on some of the sturdy mature trees in the woodland. Suitable locations should be assessed with help from local specialist groups, including the Staffordshire Bat Group.

## **4.2 Wetland Management**

Kingston Pool Covert (South) contains several wetland features, including the relatively fast flowing Kingston Brook, various drainage ditches (including one that is stone lined) and a number of silted up water bodies. The brook is classed as a main river by the Environment Agency (EA).

### **4.2.1 The Kingston Brook**

- The Kingston Brook is a watercourse that has been quite heavily canalised (i.e. it is much straighter and has much steeper banks than would be naturally expected).
- The brook does not contain a great diversity of aquatic vegetation. This is probably because of the regular dredging and the quantity and speed of water that rushes through the brook from the neighbouring housing estates after period of rainfall.
- Work with officers from Staffordshire Wildlife Trust looked at some re-meandering of the brook to encourage a more natural river profile, but this is likely to be a long-term objective. In the short-term, measures such as reducing the extent of dredging and leaving woody debris in or near to the brook would enhance the biodiversity of the

watercourse. Due to the brook being designated a main river however, the EA would not be in favour of this work and it is now not considered viable.

- At the far northern end of the woodland, just as the brook emerges from a culvert beneath the Weston Road, the banks of the brook are very steep and reinforced with blocks of stone. These walls have been colonised by Hart's tongue fern, which seems to be thriving in this damp, shady habitat. Any management work in this area should avoid disturbing the wall and repairs should be carried out as necessary to maintain this interesting feature.

#### **4.2.2 Management of drainage ditches and wetland restoration**

- There are now only two active open drainage ditches - one on either side of the woodland. The one towards the north of the western part of the woodland has been heavily engineered and is concrete lined. Consideration should be given to how these two ditches could be managed to maximise their wildlife value whilst still retaining their purpose as a drainage system from nearby housing developments.
- In addition a number of old drainage ditches and low-lying depression features can be identified within the woodland. These often retain water during winter months and periods of prolonged rainfall, but do not retain this for long enough to provide a breeding habitat for wetland fauna such as amphibians or dragonflies. In particular it has become apparent that frogs use some of these features for spawning, but that water is present in them for an insufficient length of time to allow tadpoles to develop into frogs. In early 2005 a small section (approximately 3 feet) of the drainage ditch that runs alongside the north-south surfaced footpath was dug out to a depth of 6 inches. This trial was a moderate success as frogs used it for spawning and the open water persisted much later into the year than at other such features within the woodland. However, this trial was too small to have any significant lasting benefit.
- Consequently a number of other suitable locations for the re-creation of open water features will be identified. A programme of wetland restoration works can then be organised. This would involve deepening the existing features by removing the accumulated soil, leaf mulch and other organic matter that has been responsible for their gradual silting up. In drainage ditches the whole length should not be cleared as this would simply speed up water flow into the Kingston Brook. Instead selected sections should be left un-excavated at regular intervals to act as natural dams whilst the remainder of the ditches are restored. This would produce a network of small wetland features throughout the woodland. Any larger natural depressions within the woodland could be deepened to produce saucer-shaped "scrapes" with a maximum depth in the centre that is approximately 0.5m below the current ground level. The overall aim of these proposed works will be to provide open water features that will remain into the summer months and may allow amphibians and dragonflies to successfully breed. This work was trialled in 2007 and a couple of small pools were dug. They were colonised by marsh marigold. This work could be continued but with the plan of creating some larger ponds, (about the same size as garden ponds).
- These wetland restoration works will require additional funding and will therefore only be carried out once the necessary resources have been allocated. The works would need to be carried out during the late summer months to avoid disturbance to the local wildlife during the spring breeding season or the hibernation period in late autumn and winter. The surplus soil and silt that would be produced could be landscaped into the banks that are present on the western and eastern sides of the woodland. The eastern slope has been greatly diminished by an adjacent housing development so this soil/silt deposition would also help to re-create this historical feature of the landscape. The bare soil/silt will be allowed to naturally regenerate with local native wildflowers.

- Once constructed any restored wetland features should be regularly monitored. Data should be collected on species using the features, and the condition of the features should also be inspected so that maintenance can be organised as necessary. The amount of open water should be monitored regularly and clearance work should be carried out, if necessary, during September or October, to maintain viable areas of open water.

#### **4.2.3 Pollution Control**

- The concrete lined drainage ditch in the north-western part of the woodland seems to be intermittently affected by pollution incidents. As this ditch drains water from the adjacent housing estate it is very likely that these incidents have a domestic origin.
- Any pollution incidents of an unknown origin should be reported to the Environment Agency on their emergency pollution hotline (0800 80 70 60).

### **4.3 Management of Ground Flora**

Kingston Pool South (South) contains some important species of native ground flora, including lords-and-ladies and a variety of ferns. It is important that the populations of these species are protected and enhanced whilst invasive non-native species or dominant vigorously growing species are controlled where necessary.

#### **4.3.1 Protecting and enhancing native woodland species**

- Native woodland species identified within the reserve include three-cornered garlic (*Allium triquetrum*), lords-and-ladies and foxglove. There is only one patch of the former plant found on site, near the Weston Road. This plant species is not common in the County and should be monitored to ensure its survival.
- There are a number of non-native strains of plant species within the woodland, including hybrid daffodils, Spanish bluebells and yellow archangel that have either been deliberately planted or have naturally “escaped” from neighbouring residential gardens. In most cases, although they are not native to the woodland, they will not cause any specific problems for the local environment. Other possible introductions include blackcurrant and redcurrant.
- Certain native woodland plant species, in particular wood anemone have historically been recorded within the woodland but can no longer be found on this site. In these circumstances the re-planting of native species from local provenance stocks should be considered.
- Other plants found on site include red campion, angelica and common figwort.
- Ferns found on site are: Broad-Buckler, Hart’s-tongue, Male Fern, Golden Scaly Male Fern and Soft Shield Fern. The western ditch bank is shady and an ideal place to find Soft Shield Fern.

#### **4.3.2 Control of invasive, vigorous or introduced species**

- The woodland should be monitored for the presence of invasive non-native plant species such as Japanese Knotweed, Giant Hogweed or Himalayan Balsam. These species are currently not present in the woodland, so they should be

controlled immediately if they invade the site. In such a situation the most current Environment Agency recommendations for the control of these species should be followed.

- The common nettle dominates the ground flora throughout most of the woodland. This species, together with other highly competitive species such as cleavers and ground elder, could potentially out-compete and smother the natural regeneration of saplings and prevent the spread of less vigorous species of woodland flora. Work was trialled in removing sections of nettles however the ground was rapidly re-colonised. The ground is very rich in nutrients and favours the growth of these dominant species.

## **4.4 Other Site Management Tasks**

### **4.4.1 Access**

- Improvements will be made to the two main footpaths that run through the woodland. The footpaths were constructed from compacted stone and generally provide a good solid walking surface. However, over the years a great deal of organic matter has accumulated on sections of both paths and soil has been washed onto the north-south footpath from the steep bank which is located very close to the path in places. The path will require clearance from time to time.
- To ensure the health and safety of site users who walk along the two surfaced footpaths some management operations may need to be carried out on the trees/scrub that are situated immediately alongside the footpaths. Vegetation should also be strimmed back if it overgrows the path.
- Monitoring of the condition of all access points, fencing, etc. should be undertaken regularly. Any repairs should be arranged as necessary.

### **4.4.2 Litter**

- As with other LNRs any volunteers who litter-pick around the site regularly can make arrangements with Stafford Borough Council to be provided with blue bags and litter-pickers. Any bagged litter will be collected by arrangement (call the StreetScene hotline on 01785 619401). Any incidents of fly-tipping should be reported promptly to the same hotline.
- Dog fouling problems should be monitored closely. All site users should be asked to clean up after their pets.

### **4.4.3 Signage**

- Local Nature Reserve entrance boards are installed on the Weston Road, Tixall Road and Birkdale Drive entrances to the woodland.
- It may be desirable in the future to install interpretative signage.

### **4.4.4 Wildlife Surveys**

- It is always beneficial to have comprehensive up-to-date survey data, relating to the flora of the site (including ferns and fungi), birds, mammals (including the presence or

absence of bats), amphibians, butterflies and moths. These surveys would help provide information for future management options.

- All wildlife records that are collected, whether historical or current, should be reported to the Staffordshire Ecological Record (SER).

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# Appendix One - Map

## Kingston Pool Covert (South)

