Riverside Local Nature Reserve Management Plan 2022 - 2027

Stafford
BOROUGH COUNCIL

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1 Introduction

Riverside Local Nature Reserve (LNR) is the newest addition to Stafford Borough Council's local nature reserves, declared in 2021. It comprises of 17 hectares of grazing meadows, marsh and wet woodland to the east of Stafford town centre (See Appendix 1 map). The site is within the floodplain of the River Sow and River Penk. The habitat is mainly semi-improved grassland but has the potential to be restored to floodplain meadow and marsh. A minimum of 10 years management will be required to restore and develop good quality habitat.

Site: Riverside LNR

Map: 1:25,000 sheet 244

Grid references: SJ 935222

Locality: Stafford

Status: Open space

Landowner/manager: Stafford Borough Council

Area (ha) and tenure:

Freehold	Leasehold	Management Agreement	Total Area
17.0	-	-	17.0

1.1 Prescription

Management is required to restore the floodplain habitat. The main management interventions will be a phased restoration of the land to the appropriate habitat mix of wet meadow and marsh/swamp. This will be managed through a mix of grazing by cattle and hay cuts. Additionally, some restoration of alluvial floodplain woodland will be encouraged through planting of Black Poplar. Small areas of wet woodland will be created through further tree planting. Existing areas of woodland could be improved through additional tree planting and management. Potential for riverbank enhancement will be explored.

Other prescribed management includes attempting to maximise public awareness and support, monitoring of populations of notable species and the effects of all management and fulfilling legal and other objectives.

Rights of access

The site is open space, so public access is generally unrestricted, however due to the marshy nature of the ground a raised path along the River Sow is favoured. This path is a Public Right of Way and is part of The Way for the Millennium, linking Stafford with the towpath of the Staffordshire and Worcestershire Canal. There is an additional, well used track that runs from Fairway along the edge of the new housing development and through to the centre of the LNR.

2 Evaluation

2.1 Site Description

Riverside LNR can be divided into three main habitat areas. These are floodplain grazing marsh, wet woodland and river. The main habitat on site is floodplain grazing marsh, though this is divided by land levels into lower lying marsh and a centrally raised area of meadow. Woodland consists of one compartment on the bank of the River Penk. A few mature willow trees are present along the banks of the Penk.

Stafford has a complex system of ditches and brooks, many that drain into the lower lying central area of town and flow to the east eventually meeting the River Sow. On site, Forebridge Drain is located on the northern boundary of the LNR and housing development. Hough Drain flows from the south of the site along the southern boundary of the housing development. The drains combine into a short section of ditch before joining the Sow.

2.2 Evaluation

Marsh and swamp vegetation would have once been far more common around Stafford's floodplain, but drainage, development and agricultural improvement have greatly reduced this habitat.

Vascular plants: Species diversity over the whole site is low. The River Sow features Flowering Rush, uncommon in the County. Areas of grassland are now dominated by docks and soft rush.

Vertebrates: Otters are present in the Sow and Penk rivers. Willow tit has been recorded in land to the west of Fairway and Kingfisher are occasionally seen along the river.

2.3 Ecological position

Riverside LNR is situated in the floodplain of the Rivers Sow and Penk. Ecologically, this is a key area for Stafford. A short distance upstream is the confluence of the two rivers which then continues as the River Sow to Great Haywood where it joins with the River Trent. The Staffordshire and Worcestershire Canal also runs along the floodplain. In some areas land has survived agricultural improvement and intensive farming with nearby Baswich Meadows SSSI and Rawbones Meadow SSSI still containing semi-natural habitats of wet meadow and swamp vegetation.

To the south of the LNR, the Penk floodplain includes Staffordshire Wildlife Trust's Radford Meadows. This wetland site is good for waders and wildfowl and features native Black Poplar.

The Perkins Engineering Local Wildlife Site is located on the north bank of the Sow - across the river from the LNR and consists of wet woodland and swamp.

The various waterways are good habitat for Otter.

2.4 Enhancement

The ecological position of the site justifies the aim of restoring habitats to a more diverse and natural condition. Restoration of the LNR will seek to create typical floodplain habitat and be based on Natural England's reports from Baswich Meadows and Rawbones Meadow SSSI's. These meadows feature a spectrum of wet meadow habitats from MG8 grassland to wetter mire and swamp grassland. Species common to both sites include Meadowsweet, Tubular Water Dropwort, Marsh Marigold, Cuckoo Flower and Ragged Robin. Other plants include Water Avens, Common Valerian, Great Burnet and Water Mint. Sharp-flowered Rush, Spike Rush, Brown Sedge and Reed Sweet-Grass are also present. The eventual aim will be to introduce these plants to the site – on the lower lying areas.

The raised central area of meadow will be seeded or spread with green-hay from a suitable site, to create an MG4/MG5 meadow.

The housing development land situated within the middle of the area features a pathway lined with native Black Poplar trees, also found on Radford Meadows. They were evidently part of the old floodplain and therefore should be restored through new planting.

The front field accessed from Fairway is very wet and floods frequently. A ditch runs through the centre of the field. There is potential to create a Phragmites reedbed along the banks of the ditch that can expand outwards over time. This would attract a number of bird species such as Reed-warbler, Reed bunting and Sedge warbler.

Wetland scrapes can be created to enhance the site for wetland plants and invertebrates.

3 Management Objectives

Local Nature Reserves are an important part of our natural heritage, and it is important that we treat them as such. We want to encourage and enhance biodiversity within our Borough and encourage residents to appreciate and enjoy wildlife areas. Management objectives may be subject to successful funding applications.

- To enhance and restore the site through appropriate management, within the context of a mosaic of habitats typical of floodplain meadow and marsh/swamp.
- Where the grassland is raised in the central section - to develop MG4/5 hay meadows
- To plant Black Poplar along the rivers.
- To enhance the area of wet woodland through further planting of appropriate species
- To create small woodland scrub areas along the northern boundary of the railway line
- To create a reed-bed in the wettest area of the entrance meadow – along the existing ditch

3.1 The meadows can be managed either through grazing or hay cuts or a combination of both. Where the ground is wetter on lower lying areas - grazing may be the only option. A hay cut should be carried out between July and August. Cuttings must be removed to prevent nutrient enrichment and mulching. Management will be assessed over time to maintain the best practice. Currently the grassland is dominated by docks and soft rush - the docks will need to be reduced through spot-spraying and manual removal.

3.2 An appropriate seed mix or green-hay from a suitable donor site (or a combination of both) will be sown on the raised meadow area in autumn/spring. The meadow can be managed through a hay cut and aftermath grazing if required.

3.3 Mature Black poplar is still present within the new housing development area, protected under a TPO. Trees will follow the riverbanks where possible – allowing room for the Way for the Millennium. New trees will be planted in fenced enclosures to protect them from grazing.

3.4 The small area of wet woodland can be enhanced through further planting along the edge. Willow species will be used along with Alder.

3.5 There are opportunities for scrub planting along the train-line boundary shielding the embankment and adding new habitat. Small trees will be planted due to the presence of overhead electric lines/pylons. Wildlife friendly species will include hawthorn, blackthorn, hazel, crab-apple, field maple and alder.

3.6 The entrance field often floods and features a drain through the centre. It is an ideal location for a Phragmites reed bed. Removing the turf layer should provide a suitable planting substrate. Planting would ideally be done in early April. Plants could be nursery sourced, or translocation may be possible from Astonfields LNR.

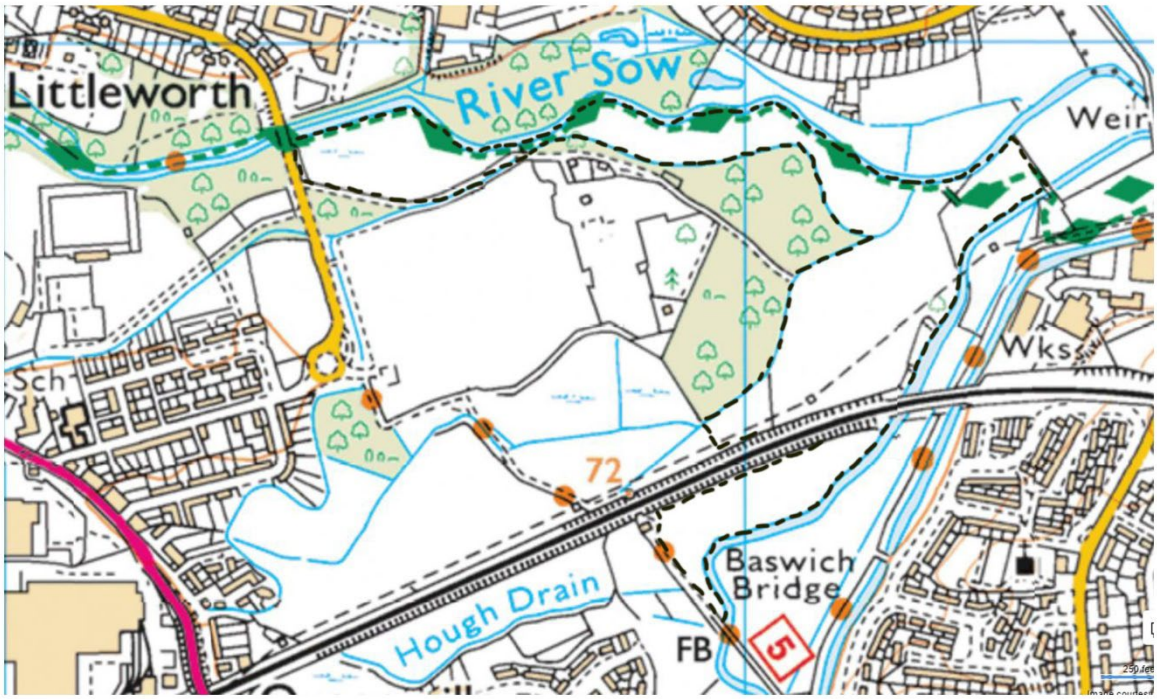
Additional Works

There are opportunities for wetland scrapes and possibly dragonfly ponds along the land to the south of the housing development. It may also be possible to re-profile edges of the existing drains and ditches, at least in places. This could allow more wetland plants to thrive.

The housing development has 1ha of natural open space. It is understood that this will be managed for biodiversity with scrapes and wetland planting. It is hoped that land management will harmonise with the LNR providing extra benefit to wildlife and effectively increasing the size of the reserve.

Appendix One - Map of Riverside LNR

Appendix 1: LNR boundary line - - -



Appendix Two - Plant Species List (tbc)

Species	Common name	DAFOR
Ranunculus repens	Creeping buttercup	occasional
Juncus effusus	Soft rush	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