Clausentum Fen Conservation Management Plan

5 Years 2017-2022

Clausentum Fen Conservation Group

updated 7th June 2017

ABSTRACT

Water is the key element of Clausentum Fen and restoring its potential to provide protected chalk stream, wetland fen and pond habitats will add significantly to the biodiversity of the Itchen SSSI and the South Downs National Park.

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Acknowledgements

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1. Introduction

This is the first plan by the Clausentum Fen Conservation Group since it was founded at its AGM on 21 February 2017. It is an interpretation of much rapidly accumulated advice from experts (especially Hugh Corry) and authorities and is abbreviated to bring many of the choices into a clear vision for all to see.

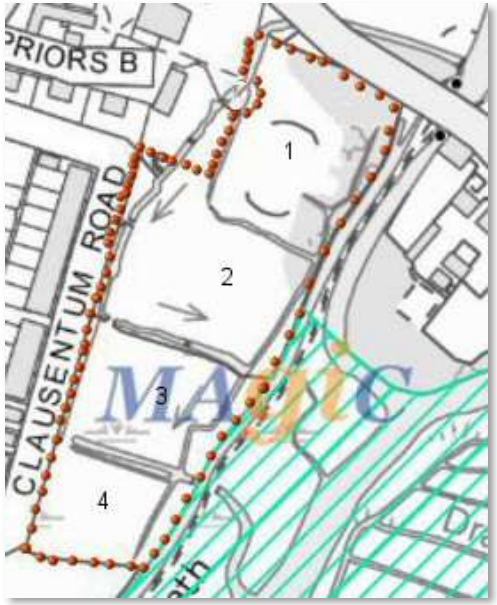
Communication with the Clausentum Fen community is focused through our website plus leafleting to those not online.

Please visit **www.clausentumfen.co.uk** to see our general activity.

2. Description & Map

Clausentum Fen is 1.9 hectares / 4.4 acres at grid ref SU4728SE. It is a buffer between the city and River Itchen SSSI (hatched area). It forms a part of the west border of the South Downs National Park. A Tree Protection Order applies to zones 1 and 2. The site is also within Winchester's Conservation Area.

Since 2003, after it became a Site of Importance for Nature Conservation (SINC), it has been managed and leased by Hampshire County Council from PGC Construction Ltd for 999 years.



Management Aims

Clausentum Fen presents several different habitat opportunities to restore biodiversity. We will:

a) restore and conserve the different habitats to optimise biodiversity
b) enlist, engage and inform the community with our biodiversity programme
c) maintain community access via the recreation area and paths
d) upgrade Clausentum Fen to a Local Nature Reserve to secure long-term support and protection

All actions will be agreed with HCC Countryside Rangers and approval obtained from relevant statutory bodies (e.g. WCC Landscape Services, South Downs National Park, Environment Agency etc.)

3. Management Objectives

a. Streams

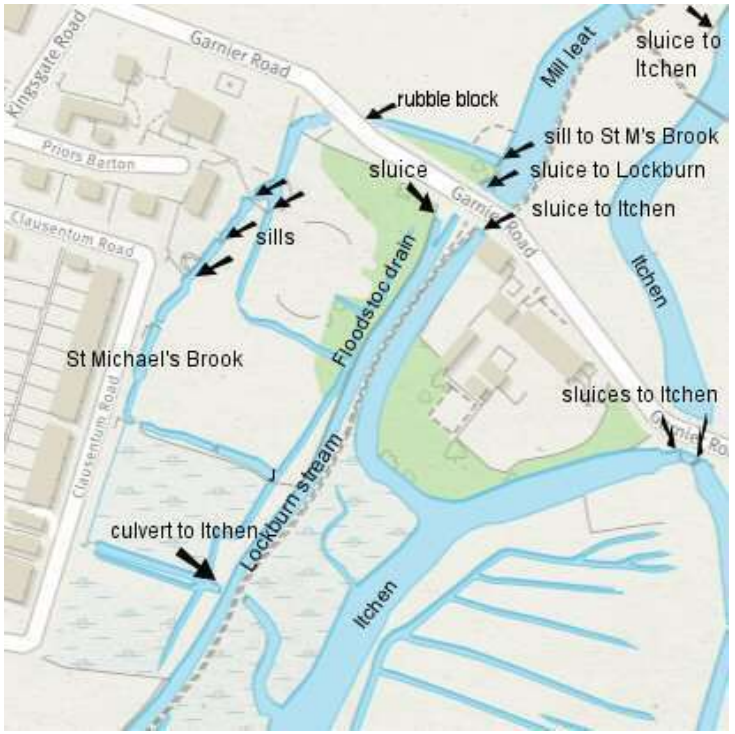
Water flows in the fen through two channels, see map. St Michael's brook starts with a channel from the mill leat just north of Garnier Road. It has 30cm depth of silt and litter along most of it and a pile of rubble with silt blocks the channel as it passes under the road bridge. The stream widens into private garden ponds, with several sills, before returning to the fen. The first branch emerging from the gardens crosses the woodland area as a boggy ditch is valued as a different habitat. The second branch continues along the densely covered west side of the fen and crosses the southern edge of zone 2. It is also very shallow and very silted in parts.

St Michael's brook stream needs sustained increases of water and sunlight to build up the macrophyte stream vegetation supporting associate aquatic invertebrates and fish. River water-crowfoot, the optimal stream vegetation, is seen nearby and requires water deeper than the 10-70mm currently in the streams. We will work with associated parties to achieve this! The water flow ultimately depends on the height of water in the mill leat which is part governed by the sluice to the Itchen. A significant increase should be generally supportable as all the water that enters the fen is returned to the Itchen via the culvert at the bottom of zone 3.

Our plan to develop the stream requires us to reintroduce dappled sunlight to encourage the aquatic vegetation necessary for fauna biodiversity. Removal of four sycamores overshadowing the transverse section of St Michael's brook should also complement the water flow improvements to improve the stream habitat. (d. summary tree work)

The Floodstoc drain on the east side of the fen is supplied by leaks in Lockburn's bank. Floodstoc shows the benefits of historically sustained water and scrub protection with water vole burrows, Trout and Bullhead fish eggs evident. We need to restore a controllable sluice to secure controlled, sustained, adequate flow from Lockburn stream.

The junction where Floodstoc and St Michael's brook meet (J on the map) has the best water flow on the site. Together with unimpeded sunlight and a gravelly bottom it is a good example of what we would like to see elsewhere. The Floodstoc and the entire east side of the fen needs some scrub protection and rotational management of the overhanging scrub and trees for the stream biodiversity to flourish.



In summary, we believe that coordinated action with the sluices should ensure sustained water flows and depths to allow the streams of Clausentum Fen to

1. provide a refuge for aquatic associates of the SSSI
2. rewet the lower half of the site (see wetlands and ponds)

b. Fen

Zones 3 and 4 are lower lying and wetter underfoot than the northern half of the site. Our plan to develop the fen wetland requires us to remove the sycamore at the corner of St Michael's Brook and cut a water channel through its roots into the fen area. In the fen, a rapidly growing sycamore has dehydrated the fen and overshadows where we intend to develop gentle fen vegetation, so we aim to remove it too. We will restore the fenland community of bird-attracting vegetation by suppressing the robust vascular species in the wetland. This will initially be by hay cutting and removing the dominant dry vegetation such as nettles. We dismissed the option to introduce cattle grazing to manage the vegetation and soil structure.

c. Pond

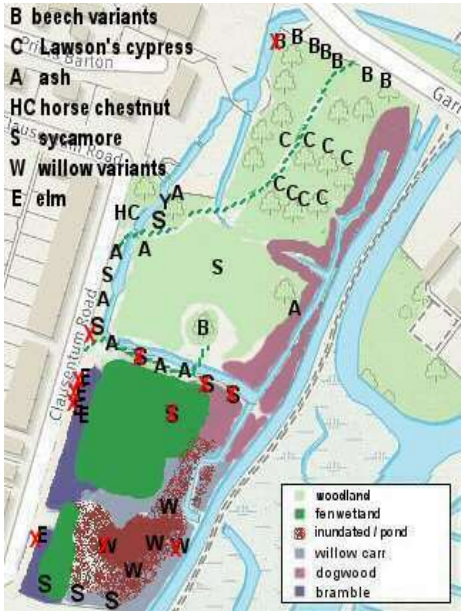
Zone 4 lies between two raised earth banks. The bank to the School's study area was built to hold back the flooded mere. The bank between zones 3 and 4 covers two large sewers heading to the pumping station. The low ground between these banks has a deep litter mat with groundwater only centimetres below the surface. Crack willow and willow carr cover much of the area. Zone 4's most interesting biodiversity option is to rewet a pond in it for amphibia and invertebrates, especially dragonflies. Establishing a successful still water habitat requires:

1. Deeper area below the water table and connecting a top-up from Lockburn to maintain a pond across the low-lying area in zone 4, adding critical mass to the neighbouring small school environmental habitat.
2. Dappled sunlight. This will require some tree surgery on the large crack willow that overhangs the new pond area denying sunlight and the leaf litter deoxygenating the still water.

d. Woodlands

When the northern half of Clausentum Fen was part of Priors Barton gardens many non-native ornamental trees were planted. They have thrived to the point where together with rapidly invading sycamores they dominate zones 1 and 2, leaving little light beneath the canopy. A beech is pushing into Priors Barton wall will be reduced to its principal trunk. We plan to leave the central woodlands as they are while we concentrate on the streams, fen and pond.

e. Tree works summary and chart



1. Reduce beech by Priors Barton wall to its principal trunk
2. Remove 4 sycamores to allow some sunlight onto St Michael's Brook.
3. Restore a water channel through the roots of a sycamore to rewet the fen.
4. Remove large sycamore dehydrating the fen area.
5. Remove four dead/dying elms by houses #22 and #28
6. Cut back the large willow overshadowing the pond.
7. Remove the dangerously leaning willow before it falls and breaks Lockburn's bank.
8. Routinely prune, coppice, pollard the crack and goat willows in zones 3 and 4

f. Public access

Planning appropriate public access, use and engagement is an important aspect of our designs for Clausentum Fen. There are two established amenities that are cherished by the community:

1. The large beech tree and clearing by the bridge in zone 2
2. The path across the north-west corner connecting Clausentum and Garnier Roads

Elsewhere we aim to protect the site from unintended wear in the highly bio-sensitive areas where flora and fauna are striving. This includes not cutting new paths, letting dogs off leads, fly-tipping etc. We are considering building the borders with hedging and bramble. Education will help.

Our website and Instagram feeds will also help keep the community alert to the issues in the fen both positive (sightings etc.) and negative (ticks, fly tipping etc.) We also intend to continue to engage the volunteers in physical work, training and research / teaching / touring to contribute to the quality of our conservation management. Our community engagement programme is building already with Bat and Moth evenings, Big Butterfly Count, BioBlitz and expert guided tours by (hopefully, more) members who become experts in their own fields.

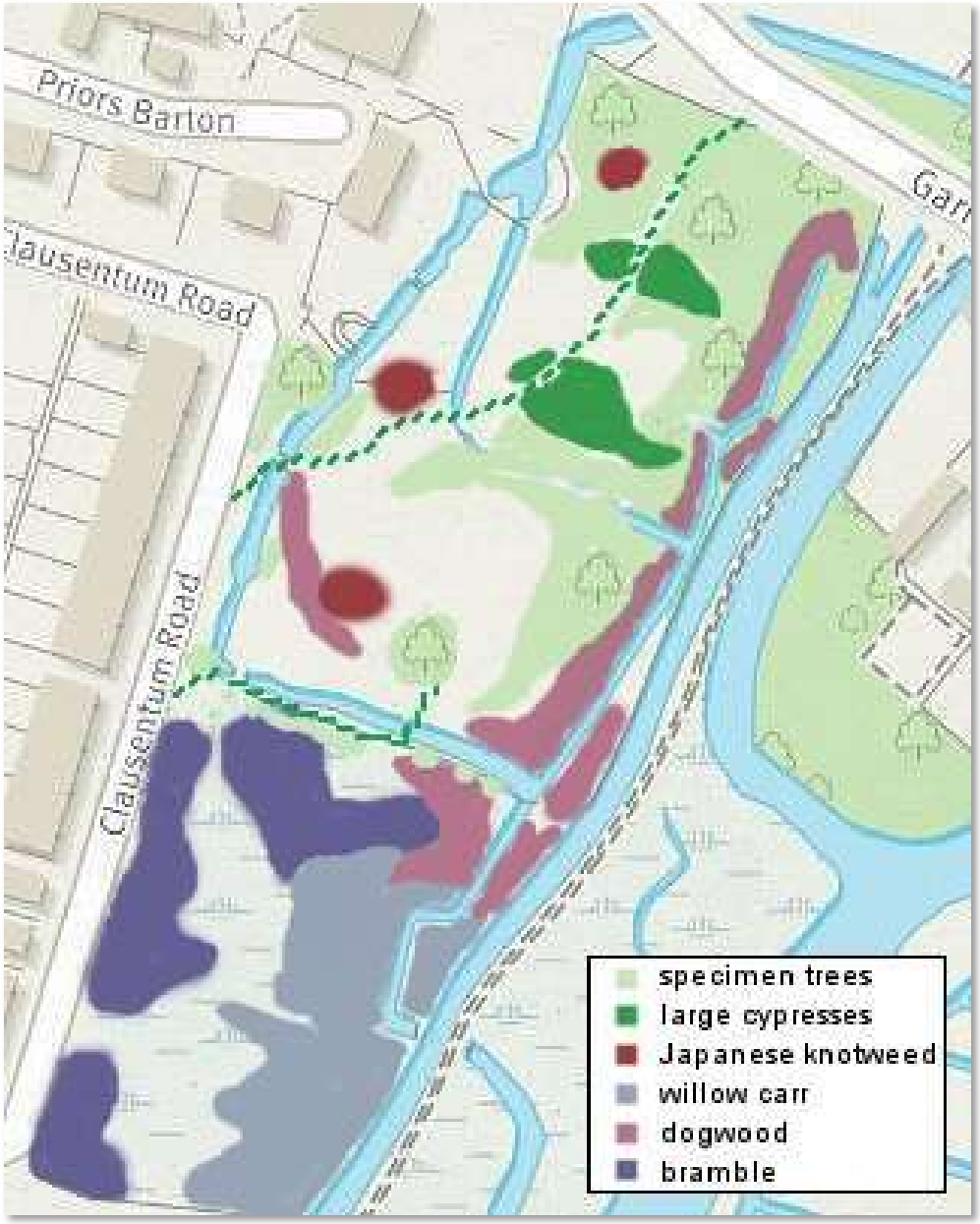
g. Monitoring

We anticipate a period of biodiversity development over the plan period, starting from quite a low base. We will monitor progress (or decline) to guide and motivate the Clausentum Fen Conservation Group.

The immediate monitoring activities include:

1. River Fly (also including Freshwater shrimp) monthly monitoring in the streams to detect increasing or reducing counts
2. Stream macrophyte development (eg. stream water crowfoot)
3. Water temperature recording April – October in the junction of the two streams to help us understand the temperature issues there over the seasons
4. a “Bio-Blitz” courtesy The Anton River Conservation Association (TARCA) is scheduled for Sunday 13th August 2017 to show our volunteers how a broad survey of flora and fauna is done.
5. Water vole footprint print tray and faeces detection
6. Bat species detection through sound monitoring
7. Moths screening routinely with sheets and bright lights
8. Butterfly Counts through the summer
9. RSPB January Bird Count (although designed for gardens will provide good fen wide engagement)
10. Generally encouraged reporting of sightings, shared on our website www.clausentumfen.co.uk and Instagram feeds.

f. Summary Calendar of Actions 2017-2022	Theme	Ext. Driver	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
1. Clear St Michael's Brook & flush excess silt	water										X	X		
2. Sustain water flow through St Michael's Brook	water	HIWWT water group											X	
3. Keep Floodstoc flow and trim cover by rotation	water	HIWWT water group									X	X		
4. Bamboo cut zone 3 (and later burn / remove)	vegetation	Rachel TCV	X							X				
5. Complete external borders (hedge)	border									X	X	X	X	
6. Dig out / glyphosate treat knotweed / bamboo	vegetation	Steve HCC	X		X		X		X		X		X	
7. Haycut (inc all vegetation) and remove in zone 3	vegetation	Rachel TCV						X						
8. Scrub clearance & removal in zones 3 and 4	vegetation	Rachel TCV								X	X	X	X	X
9. Apply TPO trim Beech in St Michael's Brook	trees	Steve HCC		X						X				
10. Apply TPO remove sycamores over St Michael's brook and dehydrating zone 3 fen area	trees	Steve HCC		X							X			
11. Apply TPO reduce willow shading pond area and remove leaning willow beside culvert	trees	Steve HCC				X					X			
12. Apply for funding from WCC plan development	admin					X								
13. Submit Conservation Plan to HCC for LNR	admin							X						
14. Monitoring – water depth & temperature	water			X	X	X	X	X	X	X	X	X	X	X
15. Monitoring – routine HBIC maintenance	species			X	X	X	X	X	X	X	X	X	X	X
16. Monitoring – BioBlitz	species	TARCA						X						
17. Monitoring – site photographic record	species			X	X	X	X	X	X	X	X	X	X	X



Map 1: Corry Survey Habitats in January 2017

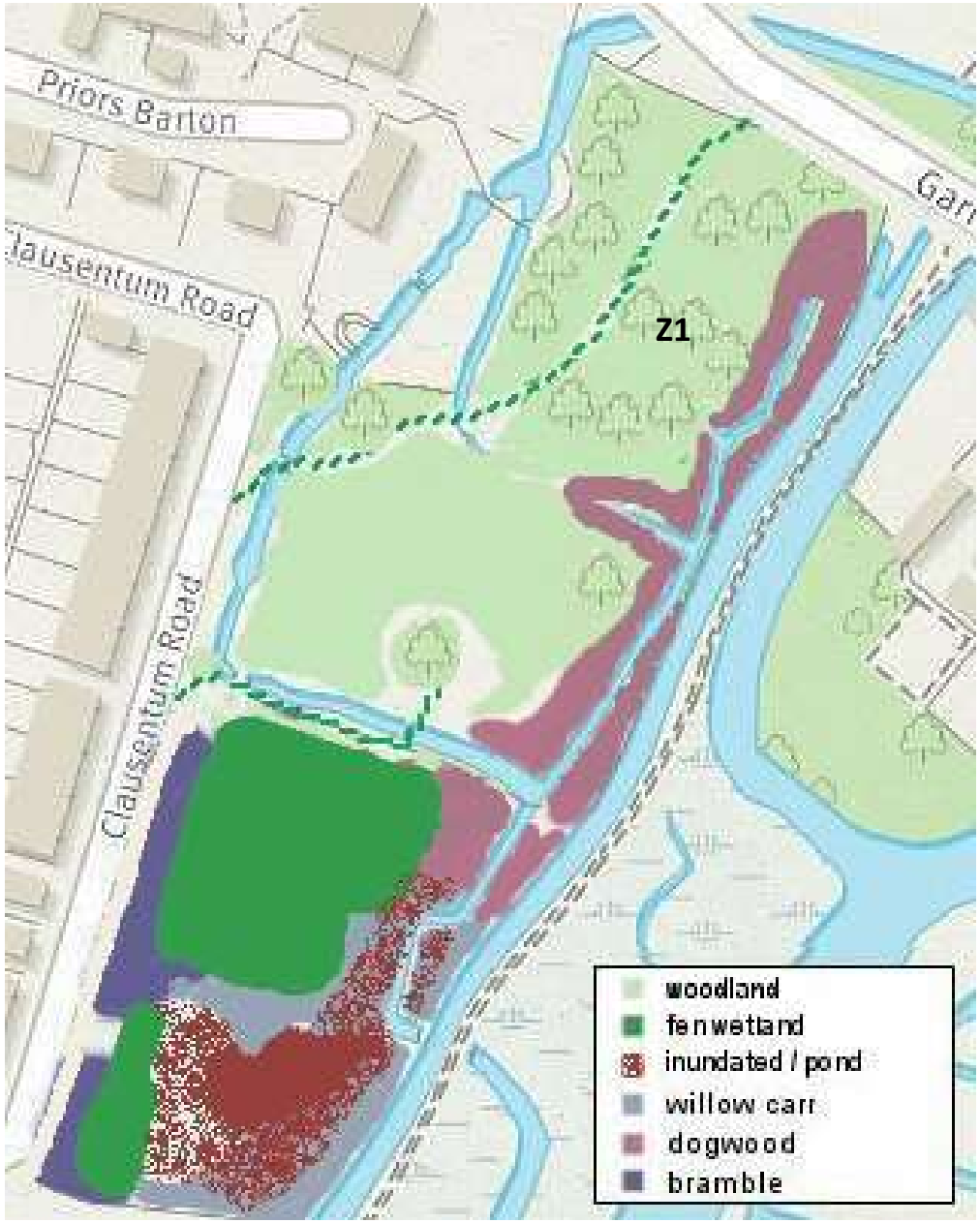
This chart shows the mosaic of habitats present across the fen:
- garden derived woodland
- native woodland
- several categories of scrub: dogwood, bramble, intermediate, bamboo
- open areas within the northern 'garden' woodland. Not as damp as the fen meadows and the manipulation of groundwater levels could make much damper.
- open areas within the southern zones where fen meadow might be restored
- streams (header channels and drains)
- paths through the Fen

The north woodland and scrub could provide open and well-lit habitats in the Fen.

The water in active channels and sluggish vegetated flows is good support for the open areas.

Each varied element supports a different range of associated species.

Restoring header channel flow into zone 3 and allowing standing water into zone 4 would contribute two more habitats.



Map 2: Proposals for Management of Clausentum Fen

This chart shows our vision for 2022 biodiversity improvements:
- managed St Michael's brook (west) for consistent flow, depth and light
- managed woodland but more open in zones 1 & 2 (reduced cypresses)
- managed protective scrub along the Floodstoc (east) drain
- rewetted fen in zone 3 by connecting to St Michael's brook
- reduce dehydration of fen by removing sycamore and scrub
- retain highly biodiverse bramble patches in zones 3 & 4
- vegetated wet areas and still pond in zone 4

Remedial work will take some time, with priority given to stream and wetlands to enhance the value to wildlife.

The basis for SINC status should also be the basis for seeking LNR status. A mosaic of favoured biodiverse habitats alongside the River Itchen SSSI. Our plan also recognises access of the site by the community.