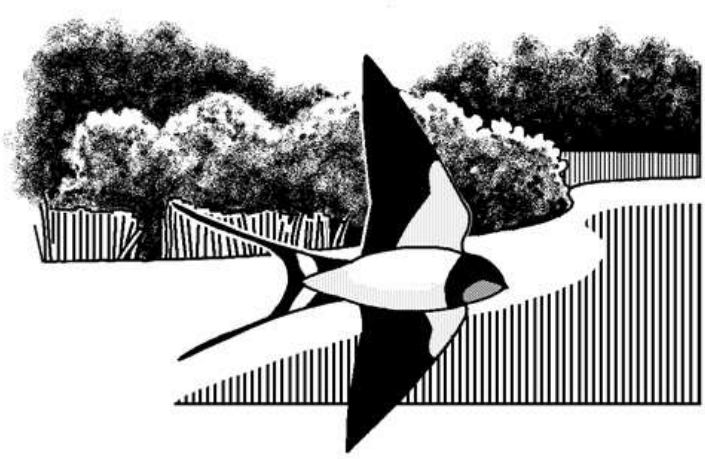
CONSERVATION STATEMENT

For

Thelnetham New Fen

January 2014 – December 2016
Version 2 August 2014



Little Ouse Headwaters Project

Thelnetham New Fen

B1.1 Summary Information

Grid Reference	TM 013 788
Parish	Thelnetham
District	St. Edmundsbury
Size	2.23 ha
Warden	TBA
Designations	None. Adjacent to Thelnetham Fen SSSI, Waveney-Ouse Valley Fens SAC
Tenure	Freehold Ownership, LOHP 2014
Access Details	Open at all times.
Rights excluded	None
Public rights of way	None
Third party easements/wayleaves etc.	To be confirmed. Overhead cables cross SW corner of site and run along road edge Ditch carries water from adjacent land and houses.
Principal habitats	Fen and scrub (east of ditch). Scrub and woodland over dry eutrophic fen, nettles and grass (west of Ditch)

Figure B1-1: Location – shown pink

Figure B1-2: New Fen – outline in red – showing adjacent land.

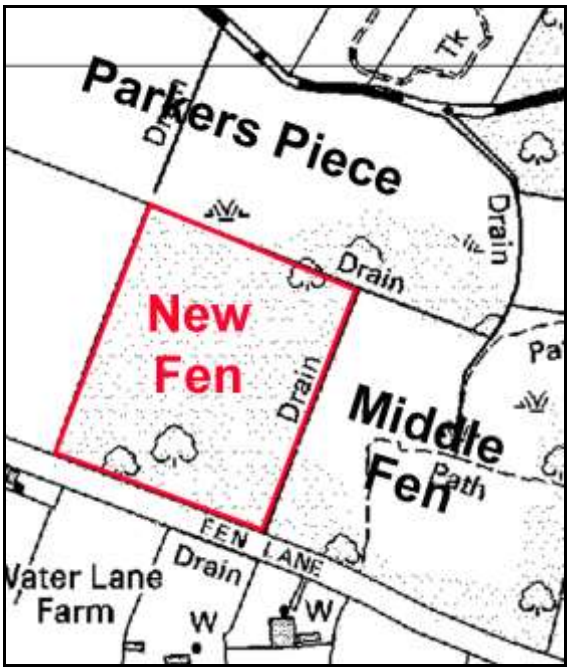


Figure B1-3: July 2008 aerial photograph

Figure B1-4: 1986 aerial photograph (courtesy SCC). Note arable west area, the future line of the new ditch as a break of slope and the general absence of trees and scrub.

Figure B1-5: How the New Fen fits within other conservation sites

B1.2 Significant Features and Their Importance

Note that the following is based on very limited information. One of the most important attributes of the site is as part of the habitat mosaic of the Thelnetham Fens area

FEATURE	ATTRIBUTES	IMPORTANCE			
		Europe	BAP	SSSI	Local
Habitats					
Fen and Scrub	Relatively little current intrinsic value. Scrub invaded over derelict fen, possibly a transition zone. If restored to fen, it would have very high value as part of SAC valley fen complex.	* (potential if restored)			*
Central Ditch	Poor current value – over-deepened, eutrophic and shaded. Principal value is as a hydrological control.				*
Dry woodland	Modest intrinsic value with poor flora and some non-natives especially poplars and sycamore. Ash dieback disease is present.				*
SPECIES					
Plants	*No survey information.* Reed and pond sedge dominate the understorey of eastern half, with nettles, a range of ruderals and tall grasses dominating the understorey of the western half.				*

Other taxa	*No survey information*. As the habitats are poor and degraded, it is assumed intrinsic species interest is currently quite low.				*
LANDSCAPE					
Wooded Valley Meadowlands and Fen Landscape Character Area (Farmer 2011).	Part of the Frith-Blo' Norton River Corridor Character Area. Comprises scrub fen and wooded margins.				*
EARTH SCIENCE AND GEOLOGY					
Valley margin	Initial field visits indicate possible transition from the adjacent low lying peat of Middle Fen through to mineral soil of the west part of the site. The central ditch may mark sharp change of slope.				*

B1.3 Stewardship Details

The land is currently not entered into Environmental Stewardship. Entry into the scheme will be a high priority.

Details		
Field Numbers	**Option**	**HLS Targets and Indicators**
Capital Works		

B1.4 Management Issues

- The parcel is divided into two portions by the central ditch. This ditch takes water from the upland towards the river and has for many years been highly contentious. It is perceived by local residents to be important in reducing flood risk to their land or property, and to their septic tanks. It is over-deepened for the water it carries. Because of its proximity to Parkers Piece and Middle Fen (both being water level

dependent and mostly SSSI and SAC valley fen), this ditch and its management is hydrologically critical to the wider fen interest.

- The ditch is said to carry discharge from the septic tanks of at least two neighbouring properties . There are anecdotal reports of sewage fungus. Bringing in this material affects the intrinsic value of the ditch and the Little Ouse into which it eventually discharges. It could also potentially affect the adjacent fens, whose habitats are dependent on low nutrient conditions, although the hydrological pathways from the ditch to the fens are poorly known.
- The ditch was dug around 1995. The 1988 aerial photo shows a break of slope or field edge at the current location of the ditch. The nature of the discharge of the septic tanks prior to the digging of the ditch is not known.
- Clearly there are many issues with the ditch, but lack of topographical, hydrological, soils and nutrient information hampers development of a strategy to address water level and nutrient management in this part of the catchment. Developing a strategy requires collection of information.
- An initial study of the drainage, soils and levels in the area was commissioned by LOHP in 2014. Results of this study will help inform discussions on future restoration and management.
- East of the ditch appears to be lower-lying and was at one time fen, possibly very similar to the internationally important habitats of Middle Fen. The site has been unmanaged for decades, leading to the development of rank reed and sedges overgrown by scrub trees. Some huge, non-native poplars have been grown along the ditch margin. The scrubbed fen has little intrinsic value, and certainly much less value than restored open valley fen.
- The 1986 aerial photo shows the land west of the ditch being mostly arable, with the land east of the ditch being mostly open. Nearly all of the tree growth on both sides of the ditch has arisen in the last 27 years.
- A long period of dereliction and overgrowth by trees means the ground surface may be degraded peat, with a layer of leaves and roots. If so, it would need significant treatment before it were suitable for the establishment of fen. While wet fen remains the management objective, some assessment of the peat and surface condition is needed before restoration work can be designed.
- West of the ditch, which has also been unmanaged for decades, the character is different. The ground ishigher and the soil less peaty and more mineral. Judging by the density of the nettles, nutrients are very high and suggestive of artificial enrichment. Examination of aerial photographs suggests there has been a period of arable cultivation.. This high nutrient loading may be leaching into the ditch. It also means that developing fen or other habitats dependent on impoverished soils would be difficult.
- Woodland developed on the drier ground, mostly through non-native plantation but with some regenerating ash and sycamore.. There is a more open glade in the middle, dominated by nettles and tall grasses. Restoration to fen does not appear feasible. Management of the woodland to re-naturalise the tree species, diversify the structure and benefit songbirds is the best option based on current information. Management

as coppice, if feasible, would provide the best songbird habitat. This is now a rare habitat in the valley.

- Non-native species will need to be removed and the stumps treated. Remaining woodland should be coppiced, involving the first-cutting of the stock of self-sown maiden trees. Good breeding bird density is achieved in young coppice less than 10 yrs rotation, so this will be the target coppice cycle.
- There are two potential threats to success of establishing a coppice (1) intense deer browsing suppressing or killing coppice regrowth and (2) the potential impact of ash die back. Deer browsing is known to affect woods all over East Anglia. Fencing here would be expensive, intrusive and may be excessive for the benefit accrued. Ash dieback is known to be intense in Norfolk, and has been recorded on this site. There appeared to be high density of ash in the woodland. Unlike Dutch elm disease, short rotation coppice does not protect the tree from attack as ash dieback is fungal not insect-borne.
- If both factors become significant, or other difficulties arise, the notion of a straightforward coppice may need to be reviewed. An alternative would be to manage the woodland for a diverse structure and aim to maximise songbird interest.
- Developing the current open area as a grassy glade would be beneficial to the structure of the site. It is suggested that a band of coppice fringe the glade, creating a grading structure from grassland to short rotation coppice.
- The open glade will need to be mown to control nettles and establish an open and, hopefully in time, a more diverse sward.
- The western boundary with the adjacent arable land would benefit from a dense hedge. Following removal of non-natives, a strip 5m deep will be coppiced back and gaps interplanted to thicken up what is expected to be quite a sparse margin. To protect the regrowth from muntjac deer, the strip will be double fenced.
- There may need to be additional tree work along the road for safety reasons.
- There appears to be a topographical transition from the low-lying Middle Fen to the more elevated area west of the ditch. No topographic levels are available to define this transition. It may be a smooth slope, or the ditch may mark a sharp change of slope. Artificial embankments from ditch dredgings mask changes of slope either side of the ditch.
- Such transitions are important as they provide a gradient of habitats from very wet to dry. They are highly characteristic of valley fens. However, levels are needed to understand the transition and to assist management planning for the scrubbed-over fen.
- Much of the above is based on initial site visits and past experience of managing the fens. Conservation planning is hampered by a lack of information, both in terms of habitats and biodiversity, and in terms of topographic levels and other physical information. These gaps in information need to be addressed in the early phase of the project.
- The land is not in Environmental Stewardship. Negotiation with Natural England is required to facilitate this, providing funds to underpin the long term management of the site.

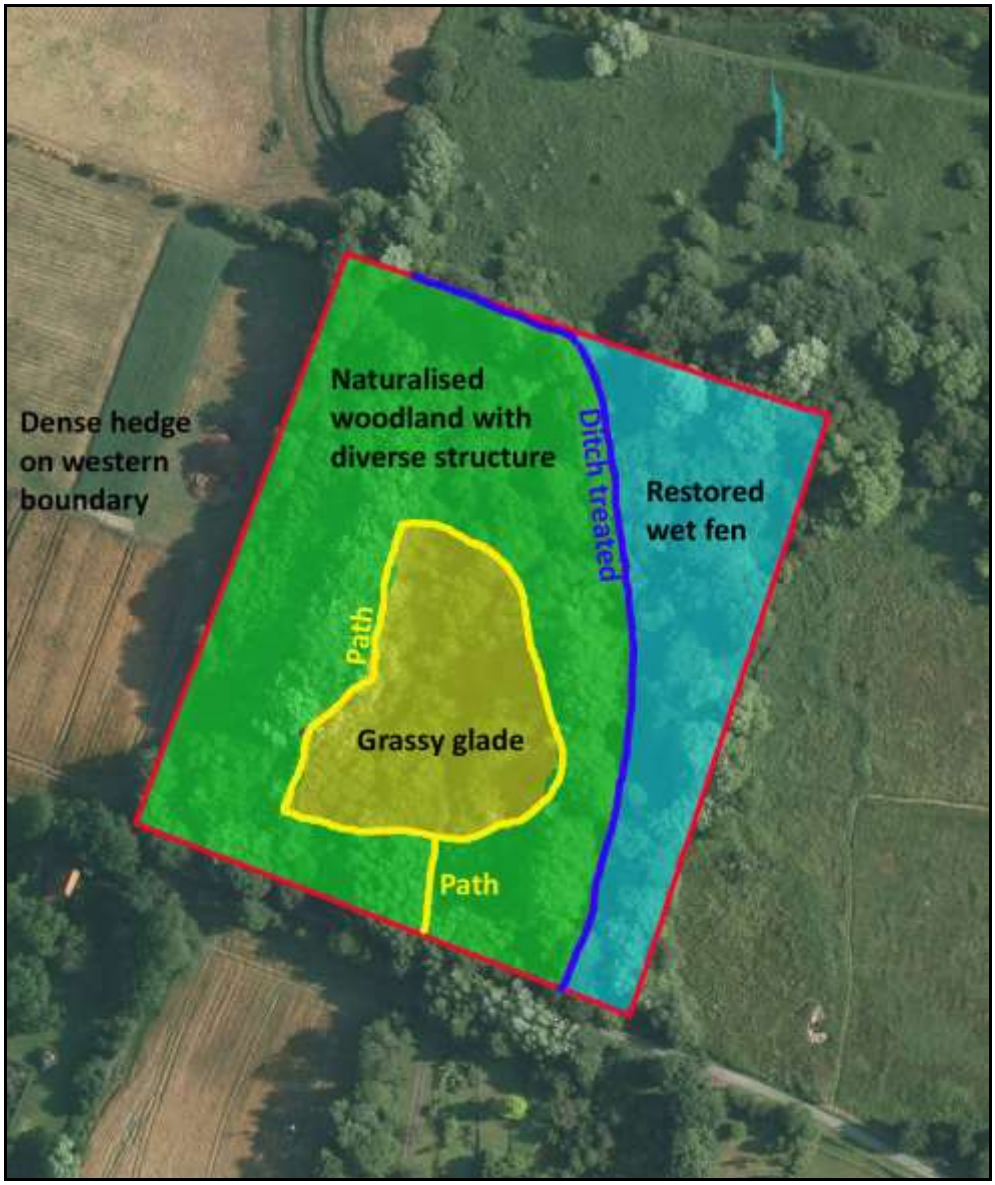
- Currently this land has no formal access. A new loop footpath will be created from the road through the drier songbird woodland, connecting to the Angles Way long distance footpath (which runs along the road to the south of the site), and hence the permissive path network on adjacent sites.

B1.5 Condition and Aspirations

Twenty Year Vision

The land will be managed to restore wet fen on the lower eastern ground, grading through to drier valley margin woodland and glades to the west. The woodland will be native in species mix and diverse in structure. The drier ground will be made accessible for local people with a new permissive path. The land will be interpreted with signs at the entrance, through our web site and through learning activities.

Figure B1-6 : Ideal Condition: The Vision



Note location of features on the above photo is approximate

B1.6 Management Objectives

1. Undertake studies needed to develop fen restoration and ditch management strategies.
2. To restore wet fen east of the ditch.
3. To develop naturalised woodland/grassland with a diverse structure.
4. To address water management and nutrient enrichment problems associated with the central ditch.
5. To provide physical access and learning about valley fens, their landscapes and wildlife.

B1.7 Management Summary

Objective	Prescription	Action	Funding
1. Undertake studies needed to develop fen restoration and ditch management strategies.	1.1 Undertake studies to help inform restoration of fen east of the ditch.	1.1.a Undertake topographic survey which defines nature of transition from Middle Fen, through New Fen (east and west sides) and the central ditch.	HLF
		1.1.b Undertake coring east of the ditch (3 cores) to describe condition of the peat.	HLF
		1.1.c Undertake walkover botanical survey in summer.	HLF
	1.2 Undertake studies to inform strategy to manage nutrients and water levels.	1.2.a Undertake topographical survey including ditches, watercourses and economic assets in this part of the catchment, from the Thelnetham Ford to Hinderclay Fen.	HLF
		1.2.b Collect and analyse six samples in west area and analyse for macronutrients	HLF
		1.2.c Undertake sampling of ditch waters and sediments and analyse for nutrients and other determinands.	HLF
2. To restore wet fen east of the ditch.	2.1 Develop restoration plan	2.1.a Using information collected in 1.1.a-c, develop Plan to restore area to best wet fen feasible under conditions.	HLF
		Subject to the studies, restoration is likely to involve removal of scrub, clearing of the ground surface and management of the regenerating scrub, ruderals and proto-fen vegetation. ***This work would be outside of the HLF project***	Post project funding incl. Higher Level Stewardship.
3. To develop a woodland structure suitable for songbirds.	3.1 Restore native species	3.1.a Remove non-natives and treat stumps.	HLF
		3.1.b Restocking through natural regeneration is preferred. If this does not occur, restock through	HLF

		planting.	
		3.1.c Remove regenerating non-natives as needed.	
	3.2 Diversify woodland structure	3.2.a Create central glade areas by mowing out the nettles and raking off the arisings. Undertake 5 times/year for the first 2 years.	HLF
		3.2.b Following 3.1.a, create band of coppice around the glade. To be maintained on 7 year rotation.	HLF/HLS
		3.2.c Depending on the success of the initial coppice, extend short-rotation coppice to all of woodland area.	HLS
	3.3 Thicken barrier between site and western arable land.	3.3.a Develop a thick hedge by coppicing 5m strip, interplanting gaps and double fencing against muntjac deer.	HLF
4. To address water management and nutrient enrichment problems associated with the central ditch.	4.1 Develop nutrient reduction and water level management strategy.	4.1.a Draw up outline strategy based on the above studies.	HLF, if sufficient data collected by Yr 2.
		4.1.b Consult with stakeholders and agencies.	No funding identified
		4.1.c Finalise plan	No funding identified
	4.2 Implementation	4.2.a Cost measures, secure funds and implement.	No funding identified
5. To provide physical access and learning about valley fens, their landscapes and wildlife.	5.1 Develop physical access	5.1.a Provide a path from the road around the glade.	HLF
	5.2 Provide learning	5.2.a Provide sign with interpretation at the entrance.	HLF
		5.2.b Undertake non-site based learning activities - see HLF application.	HLF