A Brief History of Land Use and Land Management in the Upper Valleys of the Waveney and Little Ouse

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Introduction

The purpose of this short report is to present some information about the history of land use in the upper Waveney/upper Little Ouse valley, in order to provide a broader chronological context for current nature conservation initiatives in the area. It examines the history of the valley floor between Garboldisham in the east and Denmark Bridge in Diss in the west, a total of c. 8.8 square kilometres. We focus on the extent and management of the common fens; their enclosure and partial reclamation in the early nineteenth century; and subsequent changes in land use up to the mid twentieth century. We also briefly consider aspects of river management in the past.

Land Use and Management before c.1800

Before the early nineteenth century, most of the land in the valley 'corridor' between Garboldisham and Diss – around 75 per cent – was common land, owned by the lord of the principal manor of the township within which it lay but exploited in a variety of ways by a defined group of commoners, usually the owners of the oldest holdings. These commons formed, in most cases, portions of larger commons which extended out onto the higher land above the valley floor, especially where this comprised acid, sandy ground. The extent of common land shown in Figure 1 should be treated with caution as for some areas, most notably in Hopton and Bressingham, an absence of enclosure maps or other early large-scale surveys has obliged us to rely on the small-scale county maps produced by Faden (for Norfolk, 1797) and Hodskinson (Suffolk, 1786), both of which pose problems of accuracy and ambiguity (MacNair *et al.*2010, 86-91). The broad balance between common land, and private or 'several', that we show is, however, probably correct. As Figure 1 shows, land of the latter kind was not evenly distributed, but was concentrated towards the east, in the parishes of Wortham, Roydon and Bressingham; and in the western part of Blo Norton.

Most of the floodplain commons appear, by c.1800, to have comprised open and largely treeless fen, although some areas of alder carr evidently existed: the historian Francis Blomefield, writing in the 1720s, described how Blo Norton possessed 'about 80 acres of common car and fen' (Blomefield 1810, VI, 72). There are hints that in earlier centuries wet woodland may have been more prominent. A portion of the South Lopham fens were known as The Frith, from Old English *Frið*, 'woodland' (NRO C/Sca 2/188). Part of Bressingham Common Fen was also so named, according to Blomefield (Blomefield 1810, I, 73). Scattered trees also seem to have existed on many of the commons, for in most of the local parishes manorial custom allowed commoners to plant and protect trees on common land. In 1794 Meadows Taylor of Diss, maltster and attourney, bought nineteen 'poplar timber trees' – almost certainly black poplars – which were growing on The Lows

Common in Palgrave, next to Cockstreet Bridge and therefore just across the River Waveney from his malt house in Diss (NRO MC 257/23/3/1).

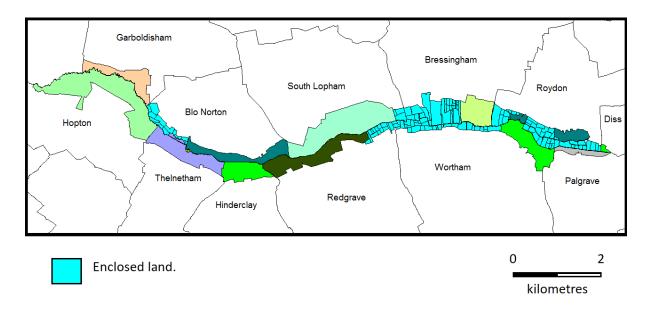


Figure 1. The extent of open common land, and enclosed private land, in the study area in c.1800.

The main uses of the damp commons are described in a survey of the manor of Lopham, drawn up in 1673, which includes an account of the 'diverse Commons and waste grounds belonging to this manor wherein the tenants of this manor have common apurtement to the tenements' (NRO PT 12/54). They included:

Another common called ffen grddn [ground] which lyeth between the several tenements and lands of the tenants of Sth Lopham of the west and north west parts and the River ... and Redgrave of the East and South East parts and extendeth from Lopham ford to the close of the demesnes of this manor ... in which common the tenants may have and take thatch for the covering of their tenements And also may take turf for their firing

- as well as having the right to 'the feed and fuel ... and so have used to do time out of mind which common containeth by estimation four hundred acres'.

Reeds and sedge, and peat, and grazing, together perhaps with some fuelwood, were the main resources provided by the common fens but where areas of sand and gravel existed they, too, might be extracted. Blomefield reported how in Diss 'the tenants can dig sand, gravel, turf, &c. on the waste, and make hemp pits [for retting hemp stalks, prior to the extraction of the fibres] on Diss Moor' (Blomefield 1810, I,14). It is possible that some of the drier ground towards the margins of the common fens was managed as meadow, cut for a hay crop – there are references to Lammas Meadows beside the Little Fen in Thelnetham in 1821 (SRO FL636/1/1). But for the most part the common fens were grazed, cut for thatching materials, and dug for peat.

Most of the valley floor fens appear to have been exploited by the commoners of individual parishes, rather than being 'intercommoned' or shared between several. The principal exception were the

parishes of North and South Lopham, which shared the use of Lopham Fen (even though this lay entirely within the latter parish), an arrangement probably reflecting the fact that the two townships had originally formed a single territorial and economic unit. Where two common fens met there was thus a physical barrier running along the parish boundary, preventing livestock from straying from one parish to the other, such as the 'ancient drain' mentioned in the enclosure award for Thelnetham, forming the boundary with Hinderclay (SRO FL636/1/1. 1821).

By the eighteenth century, as noted, a sizeable minority of the land on the valley floor – around a quarter - was held in severalty, that is, occupied as private land, free from communal use and access. Some of this had been enclosed from the commons in the course of the sixteenth, seventeenth and eighteenth centuries. The area called The Freth in South Lopham, covering 60 acres, for example, was separated from the common fen some time in the sixteenth century to endow a parish charity. By the nineteenth century it was being 'let at £8 per annum, the income of which is given to the poor by the feoffees every Christmas and Easter' (NRO PD 111/44). Deeds from 1754 describe how part of Palgrave Low Common had been granted to one John Cock of Palgrave to build a house on (NRO MC 257/23/3/1). But much of this enclosed land appears to have been private property even in the Middle Ages. As early as the mid thirteenth century there are references to blocks of enclosed land described as 'marsh' which were located on the floodplain. Richard Ingald of Wortham was thus granted - for homage and service, and a payment of 14 shillings in silver - an acre of marsh in Wortham, lying between the marsh formerly belonging to Richard le King and that of Simon de Hotune (SRO HD 1538/437/19). Similarly, in 1337 Richard son of Ingald of Wortham received one portion of marsh in the same parish, again flanked my marshes owned by others (SRO HD 1538/437/44. 1337); while in the mid thirteenth century there were grants of land 'in the marsh of Bressingham' (SRO HD 1538/437/22).

The use of the term 'marsh' implies that the land was pasture, surrounded by dykes or ditches and better drained than the common fens. References to enclosed marshes continue through the postmedieval period. In 1738, for example, John Prentice inherited '5 acres of Marsh, and a third part of 10 acres of Marsh, in Roydon' (NRO MC 257/23/2). But some of the enclosed ground was described in documents as meadow, and was presumably cut for hay, like the 'one meadow called by the name of Crofte Meadow containing by estimation six acres more or less and abutting upon the Street or Way there called Fenn Street way towards the south and upon a Marsh or Fenn called Brissingham towards the north' which was part of a farm in Wortham in 1783 (SRO HA116/4/12/2). Many of the old-enclosed parcels of land shown on the tithe maps drawn up around 1840, especially in the parish of Bressingham, have names which feature the term 'Meadow'. However they were used, these private parcels were invariably bounded by drainage dykes, the creation or maintenance of which might be a condition of a grant or lease, as in the case of a marsh in Diss in 1714 (NRO MC 257/3, 682x9). By the middle of the nineteenth century, as we shall see, some of the valley-floor land was under cultivation, and while there are few direct references to arable before this time it is probable that some of this enclosed land was so used. In 1816 the lands called the Pound Pieces in Diss, lying near the footpath from Diss Common to Cockstreet and 'next the River Waveney', were described as 'eight enclosures of arable land and meadow containing 14 acres' (NRO MC 257/3, 682x9). There are also scattered references to privately owned alder carrs, like that in South Lopham which was given to the South Lopham Estate charity in the 1670s by John Jessop (NRO PD 111/44).

It is noteworthy that most of the documentary references to enclosed, private land come from places where the map evidence also suggests the existence of such land – in Wortham, Roydon, Bressingham and Blo Norton. Quite why early enclosure should be concentrated in these parishes remains unclear – there does not appear to be any obvious correlation with soil type, etc. It is, however, apparent that many blocks of early-enclosed land were associated with medieval manorial sites located on the edge of the floodplain; around the site of Bush Hall in Roydon, near the Manor House in Wortham, and beside Blo Norton Hall. The latter land was specifically described as the lord's demesnes in a survey of 1673 (NRO PT 12/54). It is thus likely that much of this land was never common, and was always reserved for the use of the manorial lord, although as noted further private land was created, through encroachment on the common fens, over subsequent centuries.

Parliamentary Enclosure

The great fen commons were mainly enclosed by parliamentary awards between 1802 and 1826 (Bressingham in 1802, Palgrave in 1814, South Lopham in 1815, Hinderclay in 1819, Redgrave in 1818, Thelnetham in 1821, Blo Norton in 1820, and Hopton in 1826); Garboldisham, 1840, is something of an outlier (NRO C/Sca 2/51, C/Sca 2/188, C/Sca 2/44, C/Sca 2/127; SRO FB 132/A2/1, FB 132/A2/2; FL 636/1/1). Only in Diss and Roydon were valley-floor commons uneffected by parliamentary enclosure, in the latter case because there was no enclosure act and in the former because – unusually – this particular common was retained in its original state under the terms of the enclosure act (NRO C/Sca 2/94). Such a concentration of enclosure activity in the early decades of the nineteenth century is part of a familiar pattern, shared with other areas characterised by extensive commons. Prices were high during the Napoleonic War years and even when they fell back in its aftermath landowners were in an optimistic frame of mind and willing to invest the sums necessary to enclose, and if possible bring into cultivation, commons and `wastes'.

By the terms of each enclosure award the commons were divided into blocks of private property which were allotted to the manorial lord, as owner of the soil; to the rector or tithe impropriator, in lieu of tithes foregone; and to the various holders of common rights, as compensation for their loss. Each of the allotted parcels had to be enclosed by a hedge or, in the case of the fens, by a drainage ditch, to be dug and maintained at the expense of the new owner. All the awards in the area also set aside a plot of land as a 'poors allotment' of 'fuel allotment' in recognition of the fact that the local poor (even those without common rights) were still, at the point of enclosure, using the fens as a fuel source, at a time when their wealthier neighbours were normally burning wood or coal.

In addition to dividing up the fens into neat rectangles of private land, defined by straight drainage ditches, the enclosure commissioners who supervised the whole process also made provisions for the wider public benefit. Some larger arterial drains were thus created. In the enclosure award for Bressingham (1802) for example they ordered that:

The Drain or water course which we have caused to be made over the great Common in Bressingham aforesaid for the purpose of Draining and carrying water from off the same Common shall at all times thereafter be scoured cleansed and emptied maintained and kept

in repair by and at the expense of the several proprietors of the land adjoining thereto on either side in proportion to the extent of their respective lands against the said drain and that the arches which we have caused to be built and made over the said Drain shall be maintained and kept in repair , by the Surveyors of the Highways of the said parish of Bressingham for the time being.... (NRO C/Sca 2/51).

The award for Redgrave similarly instructed those allotted land within Redgrave Fen to 'make and forever thereafter keep open a sufficient Drain from the North West side of the eighth allotment to the Reverend Marmaduke Wilkinson through the said Poors Allotment that part called Ling Bench to the River' (SRO FB 132/32). Where alloted lands abbutted directly on the Ouse or the Waveney the new owners were similarly obliged to keep the river well scoured: in South Lopham they 'shall for ever hereafter scour out and cleanse such parts of the County River as adjoins the said allotments towards the south' (NRO PD 120/67). Enclosure awards sometimes set out portions of the former common fens for 'public' purposes. In Bressingham, for example, a 'cattle watering place' was established and part of the fen was allotted to the Highway Surveyors as a source of gravel for road maintenance (NRO C/Sca 2/51).

The Post-Enclosure Landscape: the survival of the fens

Large areas of land on the valley floor were thus enclosed and ditched as a consequence of the enclosure acts but some remained as open and largely undrained fen, usually because it was allotted to the parish poor but sometimes, as at Roydon, because it lay within parishes unaffected by parliamentary enclosure. As already mentioned, all of the local enclosure acts set out a portion of fen as a 'poors allotment' or 'fuel allotment', although in the case of Hopton this lay outside the area of the valley studied here. The 1802 award for Bressingham typically described how 'the said allotments shall be employed for the purpose of raising fuel for the necessary firing of the said poor persons or be otherwise appropriated and the produce and profits existing there from applied for their use and benefit' (NRO C/Sca 2/51). The management of the allotments was in the hands of Trustees, variously constituted but generally comprising the wealthier elements of the community. The Lopham enclosure award, for example, described how the poors allotment was given to:

The Lord of the Manor of Lopham, and also to the Rector, Churchwardens, and Overseeers of the Poor ... and to their respective successors for ever ... For .. the purpose of providing Fuel for the necessary Firing of the said poor persons, or otherwise appropriated, and the Produce and Profits arising therefore applied for their use and benefit; the Fuel so directed to be raised and cut, taken, and used by them, in such Quantities and Portions, and at such times in the year, and under such Orders, Rules and Regulations, and in such manner as the Lord or Lords, Lady or ladies of the said Manor, and the Rector, Churchwardens and Overseeers of the Poor of the said Parishes of North Lopham and South Lopham ... or the major part of them, shall from time to time deem most beneficial for such persons (NRO C/Sca 2 188).

The Report of the Commissioners for Charities and Education described in the 1830s how the two allotments in Blo Norton, containing 15 acres and 10 acres respectively, were administered by the

lord of the Manor, the rector, churchwardens and Overseers of the Poor for the parish, 'for the benefit of poor persons settled and residing in the said parish and not occupying to the value of £15 a year. The land to be cut for providing fuel for the said poor or to be let and the profits arising therefrom to be distributed among them according to such regulations as the trustees should make'. Here, the allotments were enough to supply about 8,000 turves for each poor family annually. 'For widows and persons incapable of cutting it themselves, the turves are cut at the expense of the parish' (NRO PD 111/44).

The area occupied by such land varied from parish to parish. In Blo Norton the two allotments covered 25 acres; in Bressingham the area was roughly the same; in both Hinderclay and Thelnetham it was 29 acres; in Garboldisham, just under 30 acres; but in Redgrave it was 80 acres, while in South Lopham 124 acres were given for the poor of that parish and a further 104 acres allotted for the use of those in North Lopham, an arrangement reflecting the shared use of the common prior to enclosure (NRO PD 111/44, PD 197/87, PD 120/67, NRO C/Sca 2/51, C/Sca 2/188, C/Sca 2/44, C/Sca 2/127; SRO FB 132/A2/1, FB 132/A2/2; FL 636/1/1).

Whatever the size of the allotments, they were located in the most poorly drained areas, overlying peat and mainly adjacent to the rivers. The Charity and Education Commissioners candidly described in 1832 how that at Redgrave occupied land 'unprofitable for any other purpose than supplying fuel, and is kept and employed for that use'. Indeed, it is likely that it was the extent of such land, as much as the size of the local population and the proportion that could be considered 'poor', that determined the extent of the fuel allotments. The fact that they were established on the dampest land, or on the deepest peat, perhaps explains why in Thelnetham the allotments formed three separate parcels rather than one consolidated block (SRO FL 636/1/1).

It is possible that some of the fuel allotments were, from the start, used in a variety of ways by the local poor, and not just dug for peat - especially for grazing livestock. The tithe maps surveyed around 1840 generally describe their land use as 'turf' or 'fen' but the allotments in Thelnetham were all described as 'pasture', as were those at Garboldisham and one of the two at Blo Norton, with the Trustees for the Poor in all cases listed as the occupiers, as well as the owners. But such a description may also reflect the way that the grazing on the land in question was being let, on a yearly basis, to a local farmer. At South Lopham in 1832 this brought in £7 or £8 a year, 'which is not more than sufficient for keeping the drains and fences in repair' (NRO PD 111/44). In 1874 the allotments were still being leased for cattle grazing for £8 per annum, but the shooting rights were now also let, at £5 (NRO PD 120/58 1869).

In such cases turf cutting continued – grazing and shooting were simply additional income streams, providing the cash required for maintenance work. But as time went on allotments might be leased out in their entirety and the income used to buy coals for the local poor. In 1875 a Charity Commission report into the various charities in the parish of Blo Norton ruled that:

The Trustees shall take steps to discontinue the gratuitous use of any portion of the land ... by the poor inhabitants of the said Parish for the purposes of cutting and getting fuel therefrom, and they shall cause so much of the said land as has been so used to be let from time to time, either with or without the right of cutting fuel therefrom ... (NRO PD 111/44).

It is unclear how far similar arrangements were made in the case of other fuel allotments in the area, but even where they were not, cutting of turf and other 'traditional' uses probably dwindled through the late nineteenth and early twentieth centuries. Particularly useful information survives for Redgrave Fen. Here, by 1883, the fen was divided into 64 allotments, seven of which were vacant, although how the parcels were defined on the ground is unclear (SRO FB 132/L1/6). The Redgrave Fen Trustees Minute Book survives for the years 1895-1937 and shows that the fen was now exploited by a list of only around 30 named 'allotment holders', all of whom had to be agricultural labourers (SRO FB 132/L1/8). Various references hint at how the land was used. In 1895 it was proposed 'That the allotment holder may remove Trees, Plants, Shrubs &c from another allotment or the lands adjacent to it without permission from the said allotment holder', but that the Trustees were to be paid the value and the money passed on to 'the person from whose allotment such may have been taken'. It was also agreed that 'any soil, sand or peat &c removed by permission of the Trustees be paid for & the money received be paid into the General Fund'. There was a separate area within the fen, known as the 'Widow's Ground, which was let annually for sedge cutting. The right to shoot game was also let annually: in 1900 the Trustees rejected a tender put forward by an allotment holder on the grounds that, by the terms of the charity, such an individual 'must be a poor man & therefore does not seem to be a fit person to both hold an Allotment on the Fen & to hire the shooting as well'.

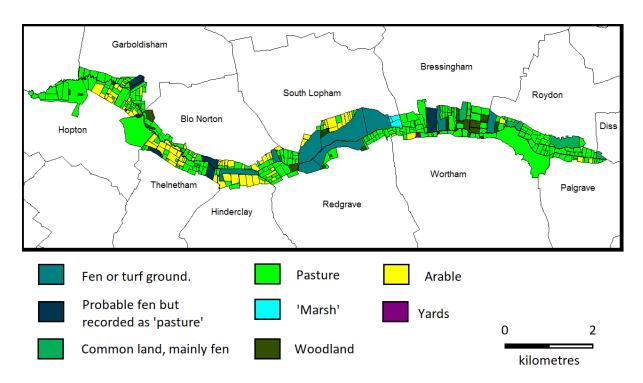


Figure 2. Land use within the study area in c.1840, as indicated by the tithe maps and apportionments.

As well as making money from these things, the Trustees also sold sand from the fen in the 1890s, to be used in 'Mr Wilson's brick kiln'. 'Soil' was also dug and sold, perhaps for horticultural use. The income from these things was used for clearing the river, a task contracted out to a variety of

individuals. It also paid for the maintenance of the access road, gates and fencing: any remaining surplus was used to buy coal for the allotment holders. Keeping gates and fences in good repair was necessary to prevent illegal grazing of cattle and horses, with an implication that such grazing, on the part of allotment holders, was normal. A ruling by the Trustees in 1920, that notice boards be erected stating that persons other than allotment holders would be prosecuted for removing wood, sedge, turf and hay, likewise suggests that the allotment holders routinely exploited the fen for these materials. But there are signs that such practices, and the use of the fen more generally, were by then in decline. Through the 1920s the meetings of Trustees became more sporadic and were now concerned solely with the letting of shooting rights and the distribution of coal. The last meeting appears to have been held in 1937 (SRO FB 132/L1/8). By 1962 it was considered that 'allotment holding has long fallen into disuse, also has peat cutting and sedge cutting'; the fen was let for shooting (SRO FB 132/L1/11,13). There is no evidence that turf cutting continued on any of the poors allotments in the fens much beyond the 1920s.

Some of the land which the tithe maps suggest was undrained fen did not comprise poor allotments. Some, as in Roydon, was unenclosed common land; another area in Roydon, and perhaps one in Bressingham, were privately owned turf grounds. Calculating the extent of undrained fen from the tithe apportionments of c.1840 is difficult because it is not entirely clear whether all the surviving commons extending onto the flood plain comprised 'fen', and because of the fact that some poors allotments were recorded as 'pasture', even though later maps show them as undrained fen. Some privately owned parcels bearing the name 'fen', but recorded as pasture, may also have remained as waterlogged ground. It seems likely, however, that the area of undrained fen in 1840 within the study area amounted to around 2.2 square kilometres, compared with around 6.6 square kilometres in the pre-enclosure landscape (Figure 2).

Post-Enclosure Land Use: private land

Reference has just been made to the tithe apportionments and associated maps, drawn up in the years around 1840, parish by parish, as tithes were commuted to fixed cash payments under the terms of the 1836 tithe commutation act. These documents record the owner and occupier of each parcel of land in the parish; usually, although not invariably, its name; and what was perceived to be its principal use. The latter information, however, was usually provided in the basic terms required in order to decide whether it contributed to the 'great' or 'small' tithes; in particular, all forms of grassland, including very rough grazing and hay meadows, are often simply described as 'pasture'. Most of the private, enclosed land in the valley floor was described as 'pasture', although some was probably cut for hay as a number of parcels, especially in Bressingham, bore names featuring the term 'meadow' (NRO DN/TA 684). A small proportion was described as 'marsh'. How well drained all this land was remains unclear but the creation of a network of open drains as boundaries around the principal allotments – drains which the enclosure awards insisted should be kept clear of vegetation and silt by the various allottees - will have served to lower the water table, reducing the amount of sedge and reed in the vegetatian and increasing the proportion of grasses. The extent to which waterlogging had been reduced by the cutting of drainage ditches and, perhaps, by the installation of sub-surface land drains is indicated by the fact that a surprising amount of the land was now being cultivated as arable, including some parcels abutting directly on the rivers. In all, arable land

accounted for around 1.1 square kilometres, or around 13 per cent, of the study area. Arable was most prominent in the central and western sections of the study area, a reflection in part of the fact that it was more a feature of land recently enclosed from the fens, than it was of long-enclosed parcels. Old enclosed meadows and pastures were perhaps too valuable to break up and cultivate at times of rising prices; the choice of how to use land newly enclosed from the fens was perhaps more evenly balanced.

The tithe maps probably show the valley floor at the high point of farming and reclamation, although there are signs that in the following decades the amount of arable land expanded further. A map of the St Johns estate, drawn up in 1869, show that three fields beside the Waveney in the far north east of Palgrave, under pasture at the time the tithe maps were surveyed, were now all arable (HE 402/1/1869). The landscape of the valley floor was thus far more diverse than it had been before enclosure featuring, in addition to extensive tracts of undrained fen, areas of meadow, pasture and arable, together with small blocks of woodland, all forming in many places a complex mosaic of niches and habitats (Figure 2).

Land Use in the Late Nineteenth and Early Twentieth Centuries

The period from the late 1870s, until 1940, was one of acute agricultural depression, which led to a contraction in the national arable acreage and localised abandonment of marginal land. The impact of these developments on the study area is to some extent shown on the Second Edition Ordnance Survey 6-inch maps, surveyed soon after 1900. These are not directly comparable with the tithe surveys made six decades earlier, for they do not map land use. They do, however, distinguish

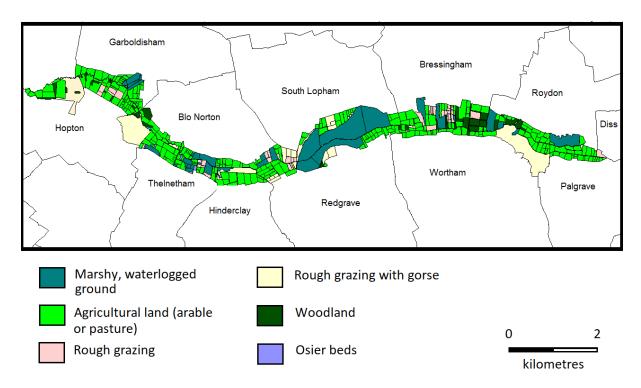


Figure 3. Types of land depicted on the Second Edition 6-inch Ordnance Survey maps, c.1900.

between good-quality agricultural land, whether arable or pasture; rough grassland; rough ground containing gorse; waterlogged land; osier beds; and woodland. All but the last two of these categories might have been mapped by the tithe surveyors as 'pasture' but the Ordnance Survey suggests, nevertheless, an expansion of waterlogged and marshy land, in at least one case at the expense of arable. This said, any increase in wetland may have been partly offset by the partial terrestrialisation which the maps suggest of both Hinderclay Fen and Lopham Fen. There had also been some expansion of woodland, especially through the development of large new areas of carr in Bressingham and Roydon; and a number of small osier beds had now been established in Thelnetham and Bressingham, perhaps another indication of increasingly waterlogged conditions resulting from a decline in farm incomes and a consequent reluctance to invest in the maintenance of drainage works.

Three and a half decades later, in the 1930s, the maps produced by the Land Utilisation Survey likewise suggest some deterioration in the intensity of agricultural exploitation, albeit again imperfectly (not least because Figure 4 is based on the available 1-inch (1:63360) mapping). Around 48 per cent of the valley floor land was classified as 'rough' pasture, and 1.5 per cent, all in Garboldisham as 'agriculturally unproductive'. And while around 4 per cent of the land was evidently still under arable cultivation, especially in Hinderclay and Lopham, this was significantly less than the c.13 per cent of a century earlier.

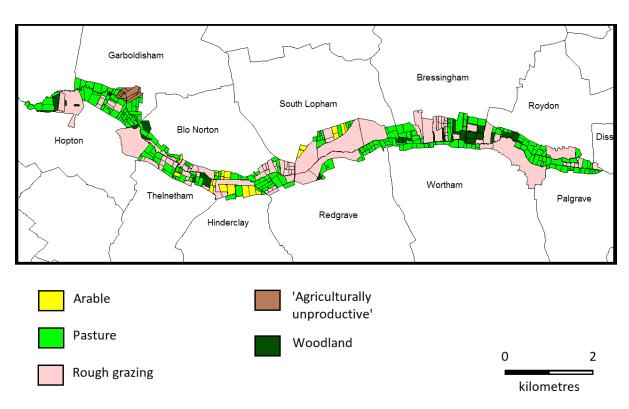


Figure 4. Land use in the study area in the 1930s, as recorded by the Land Utilisation Survey.

The decline in arable, increase in the area of woodland and waterlogged land, and the gradual cessation of management on poors allotments previously discussed, together ensured that the valley floor landscape had a far rougher and wilder appearance in 1940 than in 1840. In some ways it may have been more neglected, less intensively managed than it had been in the seventeenth or

eighteenth centuries, when the common fens were regularly exploited for sedge, reeds and peat, and grazed for part of the year. Since the 1940s the area of arable land has expanded once again, greatly exceeding its extent in 1840, ensuring that agricultural land has come to contrast ever more sharply with the increasingly wild and now partly wooded former poors allotments, most of which are now managed as nature reserves. But memories of the local landscape as it was before post-War devastation, in the depression years, should not obscure the intensity with which it was managed in still earlier periods.

River Management.

In medieval times, the maintenance of drainage in areas which were particularly subject to inundation, and in which the susceptible land was of high agricultural value, was the responsibility of 'commissions of sewers', the earliest of which was established in Lincolnshire in 1258 (Purseglove 1989, 44). These institutions, which were answerable to central government and could levy a local rate towards the cost of maintaining river walls and sea defences, and other flood prevention work, proliferated over subsequent centuries and survived until 1930, by which time they had been supplemented by other forms of private cooperative organisation, especially the Drainage Commissions established by individual acts of parliament in the course of the eighteenth and nineteenth centuries. These forms of administration were modified by the Land Drainage Act of 1918 but were only systematically reformed by the Land Drainage Act of 1930 (Purseglove 1989, 68-71). This established a system of Catchment Boards (which in 1948 became River Boards, and in 1964 River Authorities), within which – in areas where there was a particular need of flood prevention – Internal Drainage Boards (IDBs) were established, empowered to levy a rate on those likely to benefit from flood amelioration measures.

No permanent public body of these kinds was ever established to deal with drainage in the upper reaches of the Ouse and Waveney, presumably because of the relatively low value of the land and the fact that, until the early nineteenth century, most of it comprised common land. There were some attempts to put drainage on a more organised footing. In the late 1880s the District Association for the Prevention of Floods in the Valley of the Little Ouse between Redgrave and Thetford was established, 'with a view of remedying the bad state of the River, and for some time the various Owners and Occupiers have held meetings to settle on the necessary steps, and a Committee was appointed to view the River' (Holt-Wilson archive). This reported on a number of issues concerning the narrow, obstructed and silted character of the river channel, and the resulting poorly-drained condition of adjoining land. It is unclear what became of this initiative, but it is likely that it fell victim to the onset of agricultural depression from the late 1870s.

In the absence of any overall drainage authority, responsibility for the maintenance of the principal water courses – for ensuring that they remained scoured, and did not become blocked by fallen trees, silt or vegetation – devolved to local authorities, usually by the sixteenth century the churchwardens in particular parishes; and further devolved by them to individual landowners. Such obligations were also enshrined in the details of individual allotments of land made by enclosure awards. References to keeping rivers free of debris appear sporadically in local accounts, leases and other documents. The farming accounts of Benjamin Chittock of Garboldisham in the 1790s, for

example, include payments to 'William Browne and John Prentice for cleaning the River' (NRO BR 149/1); payments for 'river and water works' and 'river and drain works' appear in the Garboldisham Estate accounts in the 1890s (NRO MC 239/1, 678x7); tenancy agreements for the Denmark Green Fenlands from the mid nineteenth century ordered tenants 'at all times during the said term to keep River and ditches clear and free of weeds so as to prevent obstruction of water' (NRO PD 100/285). Sometime neighbouring landowners, on opposite sides of the two rivers, combined their efforts to keep the channel clear. The Redgrave Fen minute book thus contains numerous references to the Trustees' attempts to liaise with the Trustees of Lopham Fen. In April 1903, for example:

It was decided to write to the Lopham Trustees offering to clean the River at the same time as the Lopham Trustees. It was considered that both sides of the river might be cleansed at 1/- per rod & if the Lopham Trustees were agreeable thereto the Redgrave Trustees would find men to cleanse the whole river if Lopham pay half the expense (SRO FB 132/L1/8).

Occasionally, larger groups of landowners combined together to organise 'river work'. In 1733 the principal landowners in Blo Norton thus agreed to pay Samual Askew, John Creeme and seven other men £8 15s., plus 5s worth of beer, to clear the river between Thelnetham Bridge and Lopham and to 'make the River handsome and in such a manner as they do not find any fault with the same' (NRO MC 649/2/787X2). In 1815 a public meeting was organised to discuss lowering the bed of the River Waveney between Lopham Fen and Frenze (NRO MC 257/3, 682x9. 1531-1816). It was presumably as part of such a short-term collective venture that a map was produced, now in Norfolk Record Office, showing 6,479 yards of the 'River Waveney, cleaned out in Autumn 1883', between Bressingham and Suston (NRO MC 257/51). The impression conveyed by the sources is that considerable efforts were made to keep the rivers, and other principal channels, flowing freely, even if no organised and permanent body devoted to such a task ever emerged in the area.

Given the apparent absence of such an organisation, the existence of what are clearly straightened sections of the two rivers is puzzling. There are two main engineered sections on the Ouse: one, 700 metres in length, to the north of Hinderclay Fen and another, of around 500 metres, to the south and south east of Blo Norton Hall. There is one, rather less straight but evidently artificial, on the Waveney, extending for nearly a kilometre upstream of Denmark Bridge in Diss. There are also a number of shorter sections, of both rivers, which may have been straightened in the past.

It is difficult to ascertain the date of such changes, given the paucity of early maps in the district; all appear to have been in place before the local fens were enclosed by parliamentary acts in the early nineteenth century, although the straight section by Blo Norton Hall is referred to as New Cut in nineteenth-century documents. The longer straight sections by Hinderclay Fen, and above Denmark Bridge, in contrast, are followed by the county boundary, suggesting a medieval origin. The lower sections of the streams draining into the river have also been straightened in a number of places. These appear to have been realigned when the common fens through which they ran were enclosed, in part to speed up the flow of water and thus improve drainage, and in part to facilitate the allocation of land, in the form of measured parcels.

Summary

- The majority of the land in the floodplain of the upper Waveney and the upper Little Ouse was, throughout history, common fen, which was cut for thatching and bedding, dug for turf, and grazed during the drier times of the year, probably mainly by cattle and horses: small areas were probably also mown for hay. But a minority was always enclosed land, better drained and used as pasture, meadow and perhaps as arable. The area of woodland appears to have been limited by the end of the Middle Ages but place names hint at the earlier presence of tracts of wet woodland. Nevertheless, scattered trees existed on both commons and on private land.
- Enclosure in the early nineteenth century saw the area of undrained wetland fall by around 66 per cent, as open fen was replaced by a network of mainly small fields, surrounded by drainage dykes.
 By c.1840 a significant proportion around 13 per cent of the study area was arable land. There had also been a slight increase in woodland. The valley floor had developed into a complex mosaic comprising extensive areas of fen, drained pastures and meadows, cultivated land and woodland.
- The depression years of the late nineteenth and earlier twentieth centuries saw the development of
 a wetter and wilder landscape. The area under cultivation fell markedly; there was further expansion
 of woodland; pastures became more waterlogged; and fens ceased to be grazed, cut or dug.
- Strenuous efforts have always been made to ensure that rivers and major streams were kept freely
 flowing, in order to reduce flooding; this seems to have been true even before nineteenth-century
 enclosure, and even at times of agricultural depression. But no permanent organisation was ever
 established to oversee and co-ordinate such work.

Sources

The research presented in this report is based on maps and documents held in the Norfolk Record Office in Norwich (references prefixed NRO) and in the Suffolk Record Office in Ipswich and Bury St Edmunds. In addition, the following published works are referenced in the text:

F. Blomefield, *An Essay towards a Topographical History of the County of Norfolk*, Second edn., 11 vols. (London, 1805-10).

J.Purseglove, *Taming the Flood: a history and natural history of rivers and wetlands* (Oxford University Press, Oxford, 1989).

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