Moss Rooms and the Lindow Moss Landscape

A report on the landscape heritage of the Lindow Moss Landscape Character Area for the Lindow Moss Landscape Partnership

Introduction

This report has been produced by Groundwork Cheshire Lancashire and Merseyside on behalf of the Lindow Moss Landscape Partnership (LMLP).

The area being assessed in this report is the project boundary for the LMLP, which is defined by the Lindow Moss Landscape Character Area (LCA)[1]. It covers around 460 hectares and encompasses parts of the parishes of Wilmslow, Chorley, Mobberley and Great Warford. It is roughly congruent with the historic extent of Lindow Common[2]. Defined by a landscape character assessment written to contribute to the Wilmslow Neighbourhood Plan[3] this area is now the focus of a ten-year programme of work being undertaken by the LMLP, which is made up of Transition Wilmslow, the Friends of Lindow Moss, Wilmslow Town Council, Cheshire East Council, Cheshire Wildlife Trust, Mersey Rivers Trust and Groundwork CLM. This partnership is committed to working together to map, conserve, and restore the wider Lindow Moss landscape for the benefit of nature, climate, and people.

The report is an initial examination of moss rooms within the landscape and is primarily a desk-based appraisal, drawing on available sources including reports commissioned by the LMLP. It is a general overview and is not intended to be exhaustive. The report contains recommendations for further specialist study and should be taken as a first examination of the subject, with broad considerations of history, heritage, habitat and management of moss rooms in the context of the landscape heritage of the Lindow Moss Landscape.

THE LINDOW MOSS LANDSCAPE PARTNERSHIP
Environment Agency
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[1] Appendix 1: Maps 1 and 2
[2] Not to be confused with the modern Lindow Common SSSI. See map 4 for c.18th extent of the Common.
[3] *Wilmslow's Countryside: A Landscape Character Assessment*. Countryscape, 2020.

Background

All through the LCA, thin fields emanate outwards like the spokes of a wheel, coiling around the central area of the modern Saltersley Moss.[4] These are the 'moss rooms', evidence of historic manual peat extraction and subsequent enclosure for agriculture; a striking and unique feature of the landscape.[5] These distinctive landscape features define large areas of the Lindow Moss Landscape Character Area. They are long, narrow strips of land (rectilinear), often marked at their boundary by rows of trees or hedges and always orientated towards the interior of the historic peat mass.

Using modern maps or aerial photographs, rectilinear field patterns can be seen to be predominately grouped around four main geographic areas:

- The northern extent of the LCA around Morley Green
- The east of the LCA, concentrated around the Moor Lane and Strawberry Lane area
- The extreme south of the LCA, around Row of Trees
- The area to the east of Paddockhill[6]

These are the four areas that will be the main focus of this report. It is primarily concerned with mapping and recording the present extent of this rare field pattern[7]. The bulk of this is contained in the appendices, which consist of timeline mapping of the evolution of the core areas identified above, as well as a gazetteer of moss rooms, recorded using modern ownership codes applied to parcels as part of mapping work undertaken by the LMLP. This will form the basis of future management recommendations for these fields and, it is hoped, lead to preservation of this important heritage asset. It will also form a basis for the planning for restoration of historic boundaries to a more traditional and ecologically beneficial method of pollarding, coppicing or laying of hedge trees and for further investigation into the possibilities for re-wetting the peat soils where they still remain.[8]

[4] Confusingly known locally as Lindow Moss – here referred to as Saltersley Moss in common with modern OS mapping and to disambiguate from the c.19th usage of 'Lindow Moss' to refer to the historic Lindow Common post enclosure.

[5] 'Lindow Moss has been described as the best example of a moss room landscape in Cheshire'. J. Handley, via discoverlindow.org. The term is widely used within Cheshire, but there are examples of usage and corresponding field pattern in historic Lancashire (M. Leah et al. *The Wetlands of Cheshire*. (Lancaster, 1997), p. 215 and W.D. Shannon, 'Moss Rooms and Hell Holes: the landscape of the Leyland Dispute Maps, 1571-1599', Landscape History V. 36 (2), pp. 49-68)

[6] Appendix 1: Map 3. Underlined are the names used for these areas in this report. The Paddockhill and Row of Trees areas are distinct but are amalgamated in maps 13-28 for convenience

[7] 'Only 1% of ancient enclosure in Cheshire is in the form of moss rooms' R. Edwards, *The Cheshire Historic Landscape Characterisation*. (Cheshire County Council and English Heritage, 2008)

[8] Findings from the 2024 peat survey conducted by the LMLP show that - unsurprisingly given their history - one of the main defining features of moss room soils is a lack of peat in the main, with occasional heavily degraded deposits at the 'inner' end of the strips towards the former bog. Unfortunately fewer landowners granted permission to access and survey in the areas dominated by moss rooms than the average across the LCA as a whole, but enough for conclusions to be drawn.

History

The creation of the moss rooms as they appear today was a result of the rights held by commoners[9] to cut peat on Lindow common for use as fuel; known as the right of turbary.[10] Each commoner was able to dig peat in a strip 'one rod' in width, working inward year on year towards the centre of the bog. [11] This would have meant the creation of drains to enable the peat cutters to take deeper, wetter peat and likely began the process of draining of the moss in a small, piecemeal, way.[12] The 'moss room system' goes back at least seven hundred years but the defined landscape feature that we see today mainly dates to the early to mid-nineteenth century and is entwined with the history of enclosure.[13]

Under the commonage system the parcels were unfenced, although many may have had ditches running up the long sides. Each individual commoner would use their own strip and were not allowed to encroach on their neighbours' strip. This system began to face challenges in the eighteenth century, when instances of encroachment led to more and more moss rooms being fenced and coming under private ownership, usually accompanied by a conversion of these parcels to agriculture.[14] These encroachments could take the form of fencing or otherwise demarcating the boundary of existing moss rooms (frequently hedging), building on moss rooms, or taking allocations beyond the traditional areas held by commoners (encroaching onto a neighbour's land or extending further out into the bog). This process, although legally complex - and certainly viewed by many as just plain illegal - was usually tolerated by manorial lords (the ultimate landowner, including of common land) so long as the individual encroachers paid rent for land claimed. However, the process was broadly unpopular amongst the poorer classes, becoming more so once enclosure formalised and widely extended this process. There is evidence from the LCA of popular resistance to enclosure and in 1810 the local land agent wrote to the landowner, Lord Stamford to say that:

> 'Occupiers of cottages in and about Fulshaw near Wilmslow, collected together in a riotous manner and pulled down and destroyed fences of the new enclosures made by your lordship's tenants'[15]

It must be noted that views of enclosure from the commoners were not always negative and were entirely dependent on the local perspective:

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[9] In this sense, literally 'users of the common land'

[10] An archaic term, the word is derived from Anglo-French *turberie* and Low German, meaning *turf*.

[11] A rod was around 5 metres, one quarter of a chain (roughly 20 metres). See here.

[12] Papers in John Rylands include a deposition by John Comberbirch, who claims that after a flood around the turn of the nineteenth century, 'the parties entitled to moss rooms began at that time to cut drains to lay their moss rooms dry and by that means the water on the other parts of the common got drawn off'. Dr Nye Merrill-Glover, University of Bristol, via email, 2024.

[13] M. Leah et al. *The Wetlands of Cheshire*. (Lancaster, 1997), p. 215. It is likely that peat has been extracted for fuel at Lindow since at least the iron age, and there is some speculation that Lindow Man may have been deposited into peat workings, as was the case for other bog bodies in mainland Europe. See M. Giles, *Bog bodies: Face to face with the past*, (Manchester, 2020), p. 102, for discussion of this phenomenon.

[14] Encroachment is defined as being piecemeal or ad hoc, legally questionable, enclosure; often not done at the behest - and frequently without the knowledge - of the manorial lord. Contrast with Enclosure/Inclosure, more usually driven by landowners
(sic.), which was largely driven from the top down by landowners.

[15] A. Merrill-Glover, via email.

> ‘If squatters or others were being allowed to encroach, or overstocking, either by outsiders or by those with genuine rights, became a serious problem, enclosure may have seemed an attractive solution, even to the small proprietor.’[16]

However, in the main the process was not a popular one. Despite some resistance, Lindow Common was fully enclosed by 1851.[17] The majority of moss rooms were fenced or hedged, often with coppiced or pollarded trees demarcating the boundaries.

The majority species present in moss room hedges today are Willow (*Salix spp.*) and Alder (*Alnus glutinosa*), both tolerant of waterlogging and quick to recover from cutting. It is likely that these would have also been the dominant species at the point of enclosure due to the wet, seasonally waterlogged soils. Examples from other areas would suggest that the principal uses of the by-product produced via this management system would have been rods (willow for weaving, revetment and hurdles, alder likely mostly for charcoal or outdoor tool handles) as well as producing tree hay/winter fodder for stock now being summer grazed in the drained compartments.[18]

The process of enclosure was driven by many factors, not least a growing desire to maximise agricultural outputs. This in itself was the result of drivers such as the effect of the Napoleonic wars on agricultural production (largely through reduced imports) and, conversely, the mini agricultural depression caused post-Waterloo by the flooding of English markets with cheap foreign grain.[19] Locally the overriding factor governing pace and process of enclosure was the attitude of the predominant landowner, the Grey family, Earls of Stamford. Various members of the family drove forward change dependant on their personal interest. In particular George Gray, 5th Earl of Stamford (1737-1819), was an advocate for agricultural ‘improvement’ and consequently tolerated encroachment and encouraged enclosure.[20]

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[16] R. J. P. Kain, J. Chapman & R. R. Oliver. *The Enclosure Maps of England and Wales, 1595-1918* , (Cambridge, 2004), p. 5

[17] A. Merrill-Glover, lecture to Wilmslow Guild: *Landscape history of Lindow Moss in the early modern era (1600- 1850) – peat cutting, moss rooms, enclosure and the Lindow Workhouse*. 16/11/24. GB133 (John Rylands Library) EGR 14/17/11/20-21, *Printed Notices Issued by Legh Richmond, Agent of Lord Stamford, and Thomas Ayre, Agent of Sir Thomas Joseph de Trafford*, 10 July 1851

[18] R. Tabor, *Traditional Woodland Crafts*, (London, 1994), pp. 30-31

[19] F. Richardson, ‘The enclosure of the commons and wastes in Nantconwy, North Wales, 1540 to 1900’, Agricultural History Review V. 65, (2017), p. 69

[20] A. Merril Glover, lecture, ibid. e A. Merrill-Glover, *Mosslands in Early Modern Lancashire: Carbon, Community and Conservation* (Unpublished PhD Thesis: University of Manchester, 2023), p. 184. GB 133 EGR 14/5/5/1-2, *Lease and Counterpart Lease*, 4 December 1773

Moss rooms in the present

The net result of enclosure was the creation of the field patterns evident today and, to an extent, the establishment of the same hedgerows still present, although many will have been periodically restored or restocked. Today many former moss rooms have heavily degraded hedgerows; grown out into rows of trees and in need of management through laying (pleaching), coppicing (to 'reset' the hedgerow), restocking and/or pollarding of mature trees.

Many moss rooms now consist of species-poor grassland in varying condition. More work is needed to create a detailed UKHab map of the moss rooms but high-level habitat codes from initial surveys show the majority as g4: Modified grassland, although with more detailed summer vegetation surveys it is possible that some will key out to g1: Acid grassland, g3c: Other neutral grassland, or other level 4 grassland codes.[21] Other areas have been colonised by secondary woodland (birch-dominated w1f: Lowland mixed deciduous woodland in the main) and less frequently there are areas of woodland with secondary code 13: Scattered dwarf shrubs as the main understory feature.[22] Very occasionally there are areas of w1d: Wet woodland, g1c: Bracken or sub codes of the h1a: Lowland heathland group. The latter is difficult to categorise, as UKHab deals poorly with secondary growth of any species on drained or degraded peat and with further study some areas may key out under the wetland group ('f' codes) as, for example, f1b6: Degraded raised bog. Several former moss rooms are also wet examples of w1f woodland without keying out as true w1d woodland due to the species present.[23]

With regards land use, most former moss rooms continue to exist as agricultural land, overwhelmingly as pasture. A high percentage are used for non-productive agriculture, with the majority of grazing being equine.[24] Ecologically, almost all former moss rooms now managed as pasture are in fairly poor condition, with the majority being moderately to heavily grazed.

Even a quick review of aerial photography for the LCA shows that the typical rectilinear field pattern is still very much in evidence, with concentrations of fields that conform to the 'thin strip' pattern indicative of previous peat extraction around the areas identified in the 'background' section, above; Row-of-Trees (SJ 82446 79438), Paddockhill (SJ 81875 79656), Moor Lane (SJ 82962 80504) and to the south of Morley Green (SJ 82197 81626). Many are now transitioning to birch-dominated secondary woodland on the wetter peat soils towards the centre of the peat mass where not actively grazed.

Using these aerial images, it can be seen that some moss rooms have been consolidated into fields the width of two or more historic parcels when compared with historic mapping but the field patterns remain intact for the most part and are strikingly clear in most areas, perhaps most prominently so around Row of Trees.[25] In almost all cases, the enclosing hedges are no

[21] For more detail on using UKHab codes, please visit ukhab – UK Habitat Classification
[22] Particularly notable in parcel LL0.20, where the habitat might more accurately be described as secondary woodland (31) over primary heathland or wetland codes.
[23] There is an example of wet, seasonally inundated wet woodland that has almost no Alder or Willow spp. present in the canopy at SJ 82869 80503 within parcel LM8.
[24] Map 38 gives a reasonable overview of the stocking type across surveyed areas of the LCA. Within the LCA boundary, equine grazing represented 36 modelled polygons, sheep grazing 5, Alpaca 5 and 'Other' grazing 6. This does not directly correlate to areas of former moss rooms but gives an impression of the dominance of Equine grazing on pasture within surveyed areas of the LCA.
[25] Appendix 1: Maps for evolution of the landscape, particularly maps 13-29. It is notable that even in areas where moss rooms have been consolidated into single ownership, such as parcel HT7.10 off

longer in active management and now frequently comprise mature standard trees, albeit with an unusually high proportion of multi stemmed specimens.[26] Very occasionally some are managed as flailed or otherwise cut hedgerows, predominately hawthorn-dominated h2a: Native hedgerow, although a small number of former moss rooms now used as gardens have examples of hedges either dominated by, or with a notable component of, Privet (*Lingustrum spp.*) or Leyland cypress (*Cupressocyparis leylandii)*.[27] Ditches are obvious and abundant in the landscape and anecdotally subsurface drainage is surprisingly common for (former) peat soils.[28] Many of the ditches follow field boundaries and are a secondary method of demarcation for the field pattern.[29] Further study of the ecology of the ditches is recommended due to their high biodiversity value for their size, capacity as wildlife corridors and function of refugia for a wide range of species.[30]

Newgate, the evidence of the historic boundaries remain – in this case a sparse line of birch in the west of the parcel and what appears to be a ditched scrubby hedgerow to the east.

[26] Multi-stemmed standard trees are frequently indicative of previous management as coppice (grown out stools) or pollards (usually with the branching occurring above the stock browse line).

[27] LM9 and HT7.10 are both examples with *leylandii* components in the hedgerows

[28] Conversations with landowners during survey work. TEP and GCLM, 2024. For the ditch network, LiDAR imagery is revealing.

[29] See Map 37

[30] Water vole, for instance, are present in both moss room and non-moss room ditches across the LCA. These records come from both anecdotal reports and the results of systematic study by a suitably qualified ecologist (SQE)

Restoration

Approaches to restoration of former moss rooms can be broadly categorised into approaches that prioritise ecology and biodiversity and approaches more focused on preserving the landscape character value of these fields - although the ideal is obviously an approach that meets both. One such approach would be an increase in active management of the hedgerows. Although the type, species mix and condition of the hedgerows is not uniform, in general pollarding, coppicing or laying (pleaching) of hedgerow plants would be appropriate and beneficial as it would help to create a more dynamic and diverse structure within the boundaries, as well as increasing vigour in the majority of specimens – all whilst ensuring the preservation of the landscape character through ensuring continuation of these living boundaries.

For the majority of sites, restoration to active bog is going to be impossible due to historic extraction of the peat soils and the highly degraded condition of those that remain.[31] The nature of extraction has meant that soils in surveyed moss rooms are almost exclusively mineral at the 'outer' edge (i.e. the area furthest from the centre of the historic peat mass), grading to thin skims of highly degraded, oxidised peat towards the middle of the mass. Although definitions of peat by depth are problematic[32] (importantly, there is also disagreement over the degree to which thin peats can be successfully restored) it is highly unlikely that these soils can ever return to functioning bog or fen.[33] In the main, a target habitat of g1: Acid grassland would be possible with appropriate management and in some cases targeting w1d: Wet woodland or h1: Dwarf shrub heath may be possible. Further ecological study is required to identify per-parcel target habitats for former moss rooms.

This transition to less intensively drained, more biodiverse and overall wetter grassland could also be a realistic option in many places. Where this is undesirable or impossible due to hydrological and/or land use constraints, an approach of de-intensifying management and reducing stocking rates would be desirable. This could be in conjunction with sward diversification (with the obvious caveat that many acid grassland habitats remain relatively species-poor) via fertility reduction and seeding/green hay or planting of plug plants. Ultimately, reducing pressure on the sward and the soils through mass reduction in grazing pressure should be an aim for future management of all grassland habitats in the LCA (whether on peat soils or not), with a particular focus on removal or reduction in winter grazing to reduce poaching and allow soils to recover - the moss rooms are no different in this regard. Equally, encouraging soils to better retain moisture, again partly through reduction in grazing pressure, but predominately via more sympathetic management of ditch systems, including; reduction in ditch clearing, ditch blocking where appropriate, pulling back ditch banks to allow periodic flooding and

[31] At least in a reasonable timeframe and within a realistic budget. Joosten, H. and Duene e.V, '*Global guidelines for peatland rewetting and restoration*', (Gland, 2021), pp.19 -20

[32] IUCN UK Peatland Programme briefing note – 'Use of Peat Depth Criteria: Accounting for the Lost Peatlands', June 2023

[33] Although there are examples of restoration of shallow peats (in the cited example frequently as little as <30cm on an upland site), the combination of the level of degradation with current land use make these soils unsuitable for restoration with a singular focus on peat, for either nature or carbon. E. Grand-Clement et al, 'New approaches to the restoration of shallow marginal peatlands', *Journal of Environmental Management, Volume 161*, (2015), pp. 417-430. This is not to say that there are not extensive opportunities for nature recovery throughout the moss rooms and the wider LCA – clearly there are – only that a sole focus on peat and carbon-led work is perhaps not the most fruitful avenue as a *blanket* approach

introduction of in-channel large woody debris. The latter would not only create in-channel habitat and hold back medium-high flows but would also encourage seasonal overtopping in suitable areas. This approach of creating semi-permeable dams can also sometimes be used in conjunction with agriculture and does not mean permanent removal of stock. Nature-based solutions such as these to slow the flow of water across the landscape should be a more general aim for the LCA. The ability of more nature-friendly ditch networks and more porous (i.e. less compacted) soils, particularly when combined with a higher percentage of deep rooted grassland species, to hold back flood peaks and manage down-system flooding is well documented and nature-based solutions to downstream flooding should always be considered as a high priority in this area; sitting as it does across three WFD catchments and at the head of the catchment for tributaries to these systems, as well as containing the source/headwaters of Sugar Brook.[34]

[34] '*Natural Flood Management Toolbox'*, Report for the EA, 2017.

Discussion of the data

The desk-based survey carried out to generate the table in Appendix 2 used a range of available aerial mapping, OS data and polygons reflecting land ownership sourced from HM Land Registry to identify rectilinear field patterns as they exist in the landscape today. As part of previous work undertaken by the LMLP all land ownership parcels had been mapped and given an individual code to anonymise the data. These codes have been used here to identify the parcels for internal use, but grid references have also been included. Once these parcels were identified as potential moss rooms, they were cross referenced with the online Cheshire Tithe maps and the parcel name for the area as listed on the Tithe map recorded, along with any additional details.[35] The fact that in the main this was possible shows the continuity of the field patterns, with many historic boundaries still extant.

One feature that became evident was that the area around Paddockhill[36] was fully enclosed by the time the tithe maps were produced.[37] Further work is required, but it seems likely that this area, despite the field patterns being characteristic of moss rooms, may never have had peat soils and as such was never subject to extraction in the same way as other areas. Whilst it is possible that the Tithe maps simply show an earlier period of enclosure and/or that the peat soils were fully exhausted at an earlier date, the evidence includes:

- A lower percentage of tithe map parcels called 'intake', inclosure' (sic.) or similar. Comparing Paddockhill with Row of Trees, Paddockhill has 5.9% of tithe map parcels with these names and Row of Trees has 21.4%.[38]
- A lower percentage of tithe map parcels containing the word 'moss'. Paddockhill has 2.9%, Row of Trees has 19.6%.
- The contemporary 'Clay Lane' divides the broad Row of Trees area from Paddockhill and is possibly indicative of soil type. In addition, the 1882 OS map has two fields named 'Brick Field' at the northern end of Clay Lane, indicating possible industry based on these soils.[39]
- Greater presence of ponds. Although the boundaries for the areas are crude and somewhat arbitrary, the tithe maps show one pond each within the Morley Green and Moor Lane areas and two within Row of Trees. Within Paddockhill there are nine. This could either indicate that marling had taken place and the pits allowed to fill with water once exhausted (common throughout Cheshire) or that the underlying clay soils were capable of either holding water naturally in depressions or of being puddled to form ponds for agricultural use. Either way they are a useful indicator of mineral soils, although not a precise one. If these ponds are the result of marling activity this would be a useful indicator as to soil type.

[35] Cheshire Tithe Maps Online. See Appendix 2 for a more detailed discussion of the methodology.
[36] See Map 30 for modern landownership
[37] In this case the Tithe map for Mobberley, produced in 1838
[38] The areas are not exactly the same size (Row of Trees is bigger) and are somewhat arbitrarily defined by according to prevalence of rectilinear field patterns in a geographic area but are broadly comparable. PH has 68 parcels on the tithe map, whereas RoT has 56. For these purposes the tithe map parcels 'Lindow Moss' and 'Waste (Chorley)' have been counted once, even though they occur in several modern parcels. See Appendix 2 for full list.
[39] See Map 29. These could also be reflective of a band of clay soils between two lower lying areas of organic soils

- Higher preponderance of 'meadow' and 'croft' in field names, indicating established pasture.[40]
- Hedgerows are present in a higher density on the 1882 map,[41] indicating that boundaries had existed for a longer time in this area at the time of the tithe maps than, for example, Row of Trees.[42]
- Modern survey results were hampered by a lack of permission to access but where we have data it shows heavy clay soils throughout this area.[43]
- Overlaying Burdett's map over modern mapping shows the Paddockhill area as within Knowls Green, rather than Lindow Common.[44] This is hardly accurate, but is illustrative that this area may have always lain outside of the peat mass and lacks peat not due to extraction – but because it has never been there.
- Modern LiDAR images appear to show a ridge sloping from the Plough and Flail pub down to the south west and Row of Trees. The Paddockhill fields are mostly situated on this ridge, with the end closest to the road the highest point.[45]

This is not a definitive or exhaustive study and further work is recommended on this area, not least by a suitably qualified person with expertise in interpreting landscape. All that can be said with confidence is that the fields around Paddockhill were enclosed earlier than the majority of former moss rooms, if indeed they were ever part of the Common. It remains to be seen whether these features are reflective of extraction and enclosure or are remnants of medieval field systems. Regardless, these remarkably intact field patterns are still of great interest from a landscape heritage perspective given that they have, in the main, escaped large scale amalgamation as has happened in other areas.

What is remarkable when comparing the 1882 map to modern field patterns for the entire LCA, is how little has changed.[46] Certainly there has been some consolidation; with thinner strips combined to make more substantial parcels, but on the whole, the arrangement of field boundaries is remarkably consistent. In some cases, such as around the north of what is now Newgate Nature Reserve, the field pattern has in fact become more, rather than less, complex in the period c.1880-c.1970 – bucking national trends reflective of the search for ever greater productivity and efficiency from agricultural land. This should, however, be caveated by increased accuracy in mapping over the period and the creation of additional parcels as a result of increased exploitation of the peat resource.

[40] 14.7% of PH parcels with 'meadow', compared to 1.8% for RoT. 20.6% of PH parcels with 'croft', 5.4% for RoT. This is more reflective of management (and consequently could be indicative of an earlier enclosure date) than of soils
[41] Map 13
[42] Compare the presence and depiction of hedges for the fields running south-north around Gore Lane and Edgeview Lane with the strip-like fields running roughly west-east from Paddockhill Lane in Map 13
[43] Eight parcels on the fringes of PH all had heavy clay soils. No parcels in the centre were available to survey
[44] Map 4
[45] Maps 41 and 42
[46] See Appendix 3

Habitat and Management

In addition to the discussion in the 'Restoration' section above, below are some recommendations for future management of former moss rooms divided by target habitat. This is not exhaustive but gives a direction of travel for future management with a focus on nature recovery and biodiversity.

It is clear from the data held that intact peat soils are largely absent within surveyed moss rooms. The benefits to soils, then, is best gained through the creation of more diverse swards. This can be achieved in a number of ways. For grazed areas, reducing stocking rates and/or reducing/removing early season grazing is desirable, but requires sufficiently attractive financial incentives to be in place to encourage management change in this way, particularly for productive agriculture. One of the challenges within the LCA is in the lack of productive agriculture, with the prevalence of equine grazing as noted earlier in this report. Addressing this challenge is a future aim for the LMLP and outside the remit of this report.[47]

Management specifically for mown grasslands where an increase in diversity is desirable could include:

- Vary timings of cuts from year to year between early cuts (late June) and late cuts (late August/September) to maintain maximum diversity and flowering interest.[48]
- Maintain an average sward height between 3-10 cm with a mosaic of heights within this range (including areas of tall uncut vegetation to provide winter refuge for wildlife).
- Rotate areas of non-intervention or no-cut so that no area is left uncut for more than two consecutive years.
- Remove arisings to prevent enrichment.
- Manage undesirable species, ideally by hand pulling. These can include dock spp., creeping thistle, ragwort, nettle and soft rush for meadow habitats but could include rank grasses or scrub encroachment for acid grassland. The target habitat should be considered before radical treatment of any undesirable species (for example Juncus spp. are entirely appropriate in some assemblages).
- Maintain scrub and bracken cover at 20% or lower (or reconsider target habitat type if this not possible). Bramble cover to be assessed dependant on the target habitat but for most grassland types an upper limit between 5 and 20% is appropriate.
- Appropriate management of non-native invasive species (INNS).

With regard to boundaries of former moss rooms, any that are currently fenced or otherwise enclosed should be considered for hedgerow creation. Depending on the site and soils, these hedges could consist of a standard native hedgerow mix or a mix more suitable for wetter conditions with a higher percentage of alder and willow.[49]

For the management of living boundaries, those that have grown out into rows of trees will need to be assessed on a case-by-case basis. Where appropriate, re-introduction of pollarding at a

[47] For the sake of clarity, options including BNG, Countryside Stewardship, Sustainable Farming Incentive, carbon credits and other green finance from the private sector should all be considered as possible offers to farmers and landowners to diversify land use practices. This is far from an exhaustive list.
[48] All management recommendations for mown grasslands are from CWT, *Local Wildlife Sites report*, 2024.
[49] Wherever possible 'dynamic' hedgerow mixes should be considered that provide fruit or nectar for the maximum amount of time per year.

height above the browse line for stock should be encouraged. Where the species mix is dominated by woody shrubs such as hawthorn, coppicing or laying in combination with protection for the regrowth from grazing would be the preferred option, along with retention of trees or single stemmed shrubs at c. 1 per 20 metres. Where this is not possible, hedge trees can be introduced as standards to maximise survival potential.

Once laid, no cutting should be carried out for the first two years, thereafter light trimming rather than heavy flailing is preferable, with subsequent laying carried out every seven to fifteen years dependant on growth. If hedges are required to be flailed for e.g. road safety or visibility, then this should take place on a three-year rotation (i.e. a farmer or landowner would cut a third of their hedges per year) and must be carried out outside of bird nesting season (i.e. cuts between late September and February).

Hedges should be laid in sections to ensure varied heights along a length and in between cycles of laying the aim should be to encourage wide, 'messy' hedgerows; wherever possible with a corresponding hedge on the other side of the road, path, track etc to create a 'green lane' effect and increase connectivity. Any gaps in hedgerows should be filled with the appropriate species for the conditions with an aim to increase hedgerow species diversity where possible. As with other habitat types, management of INNS should be a priority. This is particularly relevant where hedges have an accompanying ditch that could be a conduit for the spread of INNS.

For woodland parcels, management of INNS is also a priority. The most widely spread species across the LCA is Himalayan Balsam (*Impatiens glandulifera*).[50] This species is best hand pulled, ideally before flowering and certainly before seed formation. This differs depending on weather but generally the peak season for removal is April-July.

Also present across the LCA are smaller amounts of:

- Monbretia (*Crocosmia crocosmiifolia*)
- *Cotoneaster spp*.
- Variegated yellow archangel (*Lamiastrum galeobdolon argentatum*)
- Japanese knotweed (*Fallopia japonica*)
- *Rhododendron ponticum*
- *Buddleja davidii*
- Cherry Laurel (*Prunus lauroceras*)[51]

The majority of the above are garden escapes and found disproportionately in areas directly adjoining gardens. They should be hand pulled or spot-treated with herbicide where found. The exception is Japanese knotweed, which is found in small amounts across the LCA and should be stem injected by a suitably qualified professional when identified.[52]

More generally for woodland parcels each one should be assessed using a version of the following criteria:

- What is the soil type? Is there deep peat (>30cm) and if so, what condition is it in?

[50] An invasive non-native species survey is planned for the next year to better map the presence of Schedule 9 species across the LCA, initially from public footpaths using the INNS mapper platform
[51] From personal observations and CWT, *Local Wildlife Sites report*, 2024
[52] One large stand of JK is present on the site at LL1.5 and is currently being removed by the land owner. This area is not a former moss room and from the mapping evidence was not enclosed until the twentieth century.

- Is there drainage present? If so, what effect would there be on surrounding land if it were to be interrupted?
- What age is the woodland and what condition is it in? What is the species composition? Is there a diverse understory? Are there any ancient woodland indicator species?
- If trees were to be felled or were damaged by changes in hydrology, what would the successional habitat be?
- Is there a dwarf shrub layer present? Is sphagnum present?
- What is the landscape and ecosystem value of the woodland? What function is it fulfilling?
- To what level have species and habitats within the woodland been surveyed?

This could obviously be built into a survey methodology quite easily and the results scored to create a prioritisation matrix indicating desirability of wetting or felling the woodland. In most cases clear fell would be ecologically and socially undesirable but there may be arguments for changing hydrology and allowing the woodland to naturally succeed to either wet woodland or ultimately heath or fen.

Where woodland is to be retained, as it will likely be in the majority of cases, scalloping and glading to increase the amount of edge and to increase light under canopy should be considered.[53] Where peat soils are not present the creation of woodland ponds should also be considered due to their immense value to biodiversity, as well as the benefits to declining water-dependant woodland species such as Willow tit (*Poecile montanus*).[54] Equally the promotion of a well-developed scrub layer in woodlands should be promoted through selective felling and underplanting with shrub species to encourage Willow tit and other declining woodland birds reliant on this habitat component such as Dunnock (*Prunella modularis*), Woodcock (*Scolopax rusticola*) and Willow warbler (*Phylloscopus trochilus*).[55] Glading and increasing light within woodlands is beneficial to tree-top nesters reliant on a developed crown such as Lesser spotted woodpecker (*Dryobates minor*), as well as having the benefit of increasing the shrub layer.[56]

For areas of dwarf shrub heath, management should aim to promote the presence of the key indicator species via the removal of scrub where it forms more than 10-15% of cover as well as ensuring a diverse age range of dwarf shrub species. The Biodiversity Metric habitat condition

[53] 'Woodland management should intend to achieve a 'soft' edge in which the woodland fringe contains an eco-tone from rank grassland to scrub to woodland. The transition to woodland provides habitats for an abundance of birds and invertebrates.' CWT, *Local Wildlife Sites report*, 2024, p. 9

[54] Willow Tit has not been recorded on site since 2002 but there are breeding populations within a conceivable distance for expansion (although the species is notorious sedentary) and the species is a conservation priority locally given the presence of these populations. Creating open water within woodlands is a net benefit for a number of species – Willow tit as a fast-declining species is a useful figurehead here. Update for V2 – a juvenile Willow tit was captured by a local ringing group on Saltersley Moss in late summer 2025. Thought tot be a post-breeding dispersal, this record is a hopeful sign that suitable habitat is available in the locality, as the species is known to disperse only over fairly small distances.

[55] Dunnock and Willow warbler are confirmed breeders within the LCA, Woodcock is present as a winter visitor and a probable, if cryptic, breeder. Management recommendations from N. Symes and F. Currie, *Woodland Management for Birds*, (Sandy, 2005).

[56] Lesser spotted woodpecker was previously recorded within the LCA in the period 2010-2014 but has not been recorded since. This may be due to national declines, but a lack of standing and fallen deadwood in most woodlands within the LCA is an issue for the species.

assessment sheet for heathland is a helpful document, detailing as it does the key markers of good condition for this habitat type: [57]

- The appearance and composition of the vegetation should closely match the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, herbs, and lower plants for the specific heathland habitat type should be very clearly and easily visible (per UKHab descriptions).
- There should be at least two dwarf shrub species frequent, with cover between 25-75% for lowland heathland, 50-75% for upland dry heath, or more than 20% for upland wet heath.
- All age classes (pioneer, degenerate, and mature) should be present, with at least 10% pioneer heather in the lowlands or at least 10% degenerate/mature in the uplands.
- Unshaded bare ground should be between 1-10%.
- No signs of disturbance in sensitive areas, including managed burns.
- No more than 33% of heather shoots should be grazed, or flowering heather plants should be at least frequent in autumn.
- Less than 1% cover of invasive non-native species or shallon (Gaultheria shallon). Less than 5% cover of bracken (Pteridium aquilinum).
- Cover of scattered trees and/or scrub should be less than 20% for upland heaths, less than 15% for lowland dry heaths, and less than 10% for lowland wet heaths.
- No signs of any damaging activities or contamination to the habitat, such as artificial drains, peat extraction, silt, leachate, or eutrophication.

The first four criteria must be passed for the habitat to achieve 'good' status alongside four or five of the remaining criteria.

Management recommendations for other habitat types are to be decided dependent on the target habitat, the method of funding the work, the constraints for the site and the current land use.

[57] These are from V.3.0 of the Metric, sourced from Gov.uk

Conclusions

It can be seen that boundary creation/restoration is a net benefit for biodiversity via creation of corridors, addition of living biomass to a landscape and increases in connectivity and so, almost by definition, smaller parcels of land, where boundaries are defined by hedgerows or lines of pollards/coppice stools are a positive for biodiversity and nature recovery.

To an extent then, restoration of historic boundaries adjoining and demarcating former moss rooms appears a win-win, for both nature and landscape heritage. However, as ever with landscape restoration in an historic landscape where biodiversity is a principal driver, a question needs to be asked about exactly *when* one is aiming to restore to.

The moss rooms were created, extended and managed in order to exploit the peat resource, for reasons that made complete social and economic sense at the time. However, we may not choose to make the same land use decisions today. Therefore, restoration to a state of active peat extraction would quite obviously be a nonsense, quite apart from the exhaustion of the peat resource in most cases.

Equally, a restored landscape reflecting any kind of intensive agriculture (lest we forget, the aim for the early enclosers) would be anathema to nature conservation, as well as damaging to any remaining peat. These feel like obvious statements, but it puts into perspective the nature of the decision to be made. Realistically, options for future management must be palatable for restoration of a recognisable landscape, as well as being of maximum benefit for nature and carbon.

Boundary restoration and creation (where necessary) is essential to meet both heritage and nature conservation needs and should be seen as the starting point for any programme of restoration. The question of rewetting the peat soil, however, is more complex. From a heritage perspective, moss rooms, either in their original state as extraction sites, or in their second act as agricultural parcels, would have been drained – to the benefit of peat cutters or livestock. Even today ditches define the boundaries of many moss rooms and a more thorough and detailed understanding of this ditch network, along with a hydrological understanding of groundwater and both channel and surface flow throughout the LCA, is essential before delivery of any major changes to the network. [58]

Decision making about the future of field boundary ditches will also largely be driven by landowner amenability to change, alongside consideration of disruption to subsurface land drainage to rewet soils. It can be argued that from a restoration perspective, the imperative has to be carbon and nature as twin aims. With this in mind, rewetting of intact peat soils where they persist within moss rooms is desirable, regardless of the 'inaccuracy' of this approach from a heritage perspective.[59] This will be a small number of sites if the findings to date on presence and condition of peat soils are replicated across the LCA and as such, the focus in the main should be on habitat restoration. It is recommended that where permission to access has not been given more resource is allocated to landowner engagement so that further surveys can be carried out.

[58] Map 39

[59] There is space for former moss rooms that are either unsuitable for rewetting - or where this is unpalatable to landowners - to do more for nature whilst remaining 'dry'. It is also important to recognise that intact peat soils are rare within surveyed moss rooms

A recommendation of this report is that the partnership carry out a parcel-by parcel survey of the existing former moss rooms in order to survey:

- The condition of the boundary/ies. This should include a hedgerow survey where they are present, noting both woody and non-woody species as well as identifying condition of hedges.[60] Biodiversity Metric habitat condition sheets would suffice for an initial overview and gaps should be noted and mapped. Ditches should be noted and mapped (MRT methodology) and presence/condition of grown out pollards/coppice stools noted. The majority of this work could be conducted from public footpaths and by volunteers.
- Current land use where not already covered by the peat survey.
- Soils. Peat presence, depth and condition where permissions have been gained and the LMLP does not already hold this data.
- Target noted features such as degraded former boundaries, INNS, threats and locally significant species

Other recommendations for further study include:

- Acquiring licencing for the Tithe map data from Cheshire East, overlaying this on the project webmap and conducting a more comprehensive GIS analysis of the relationship between tithe map parcels/field names and modern field patterns/ownership
- Further archival work – particular focus on records for the a) pre enclosure history of the moss and b) the pre tithe map moss rooms, particularly around Paddockhill. The principal aim would be to identify – so far as possible – if this area was part of the historic common and, if so, whether the rectilinear fields should be considered as moss rooms.
- Further ecological study is required to identify per-parcel target habitats for former moss rooms
- Further research into the 'Paddockhill ponds' to see if their origin can be traced to marl extraction
- More detailed hydrological work, with a focus on flow (Scalgo etc) and modelling for any changes to the ditch network.

Ultimately a decision about 'restorability' of moss rooms from a carbon perspective (which in the main will mean rewetting as a first step) will be overwhelmingly influenced by the presence or otherwise of peat soils, informed further by condition and depth where they are present. As previously stated, these field patterns were created as the result of peat extraction, and it cannot be presumed that peat will be present in the un-surveyed areas. In the main the preliminary results of the peat survey show that the extent of mapped peat across the LCA is less than shown on either the British Geological Society[61] or Natural England[62] peat maps and it must be presumed that where these datasets contain moss rooms, the peat is highly likely to be exhausted. Therefore, an approach focused on the potential for nature recovery and increased

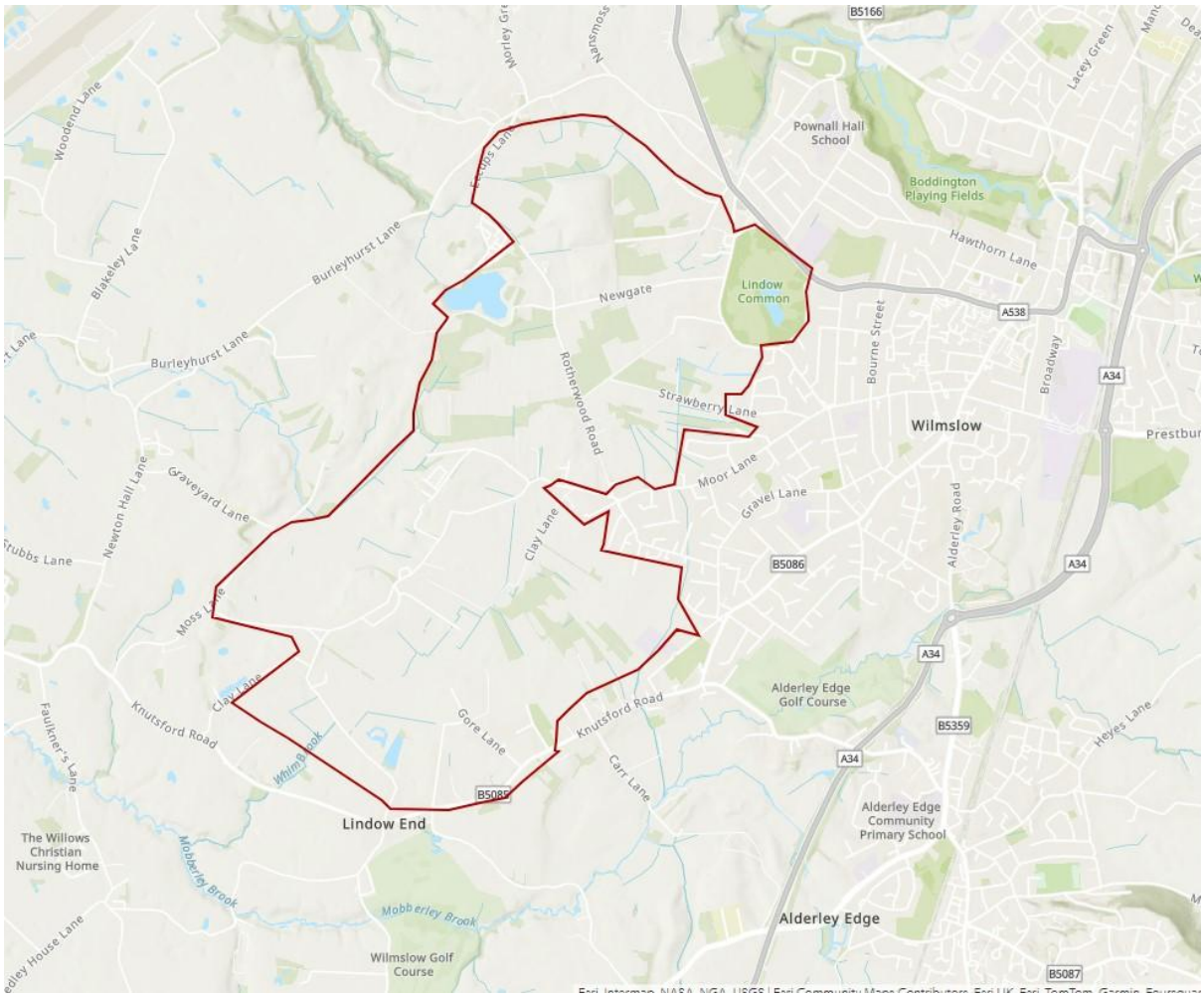
[60] A methodology could be designed specifically for this work, including hedge height, thickness and number of species per metre. This will help assess condition as well as providing a crude estimate of hedgerow age.

[61] BGS

[62] Peaty Soils Location (England) | Natural England Open Data Geoportal

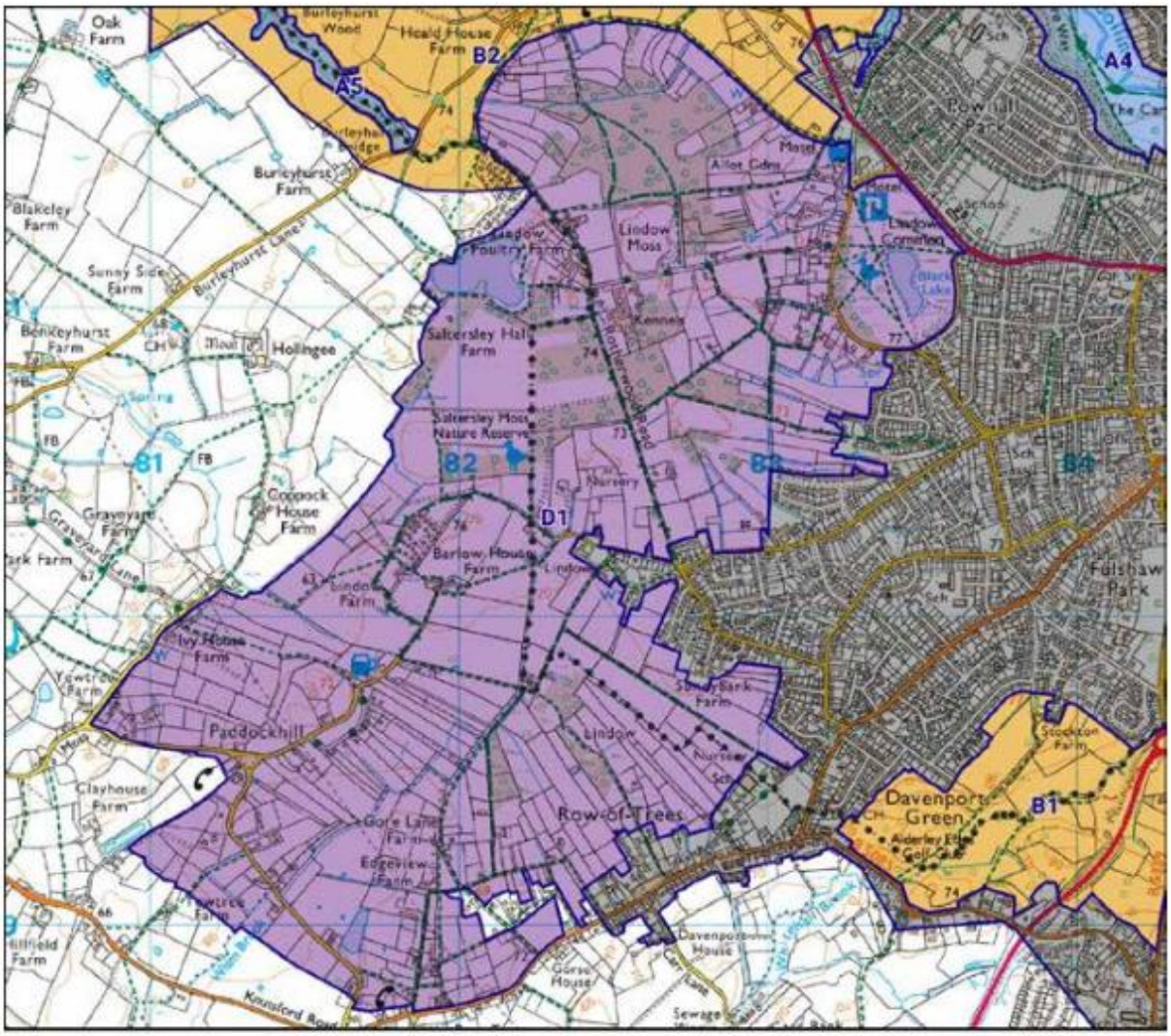
biodiversity in the moss rooms, alongside prioritisation of preservation of the heritage asset, should be the preferred option.

Appendix 1: Maps



Map 1: Lindow Moss Landscape Character Area (LCA)

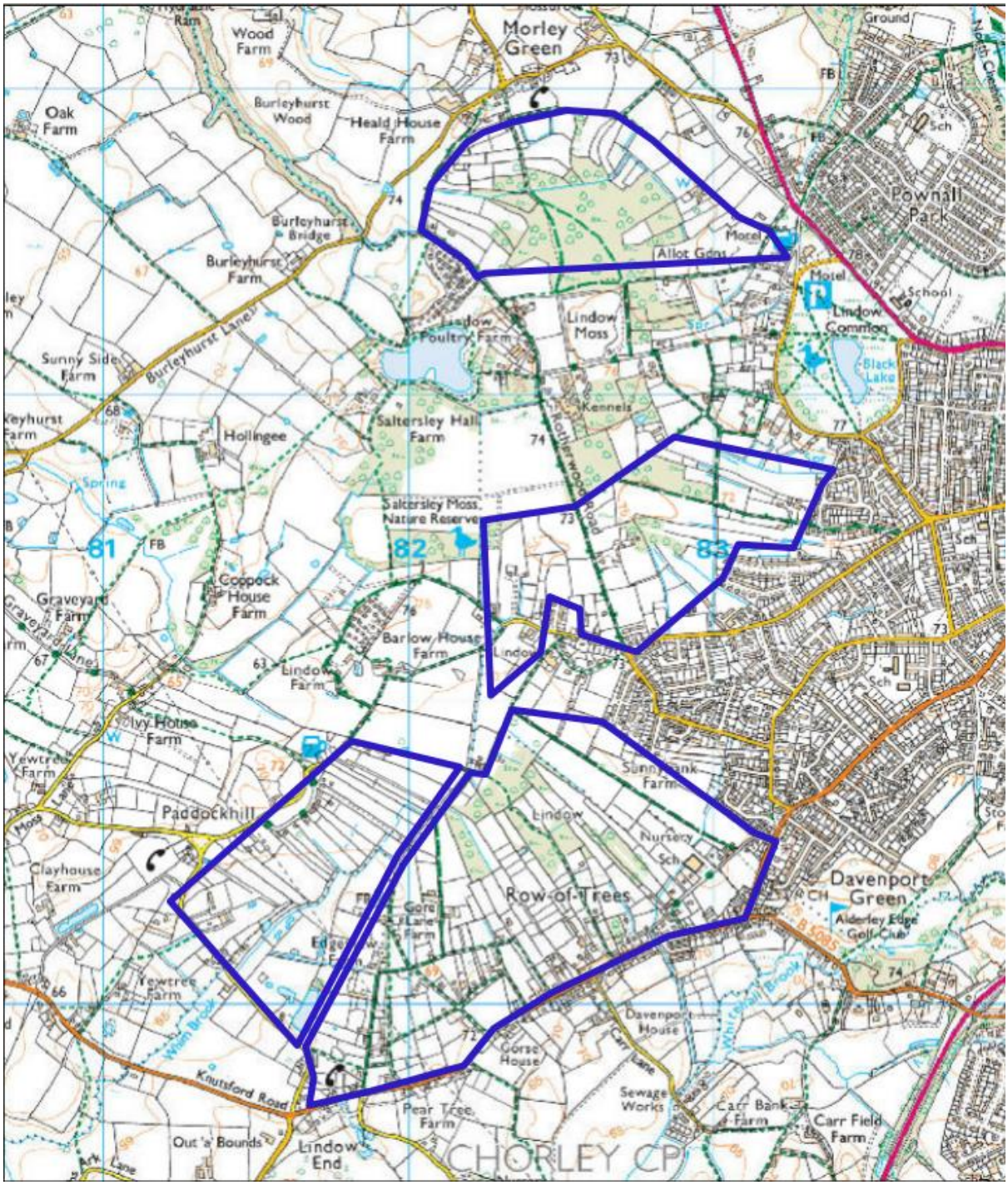
©ESRI



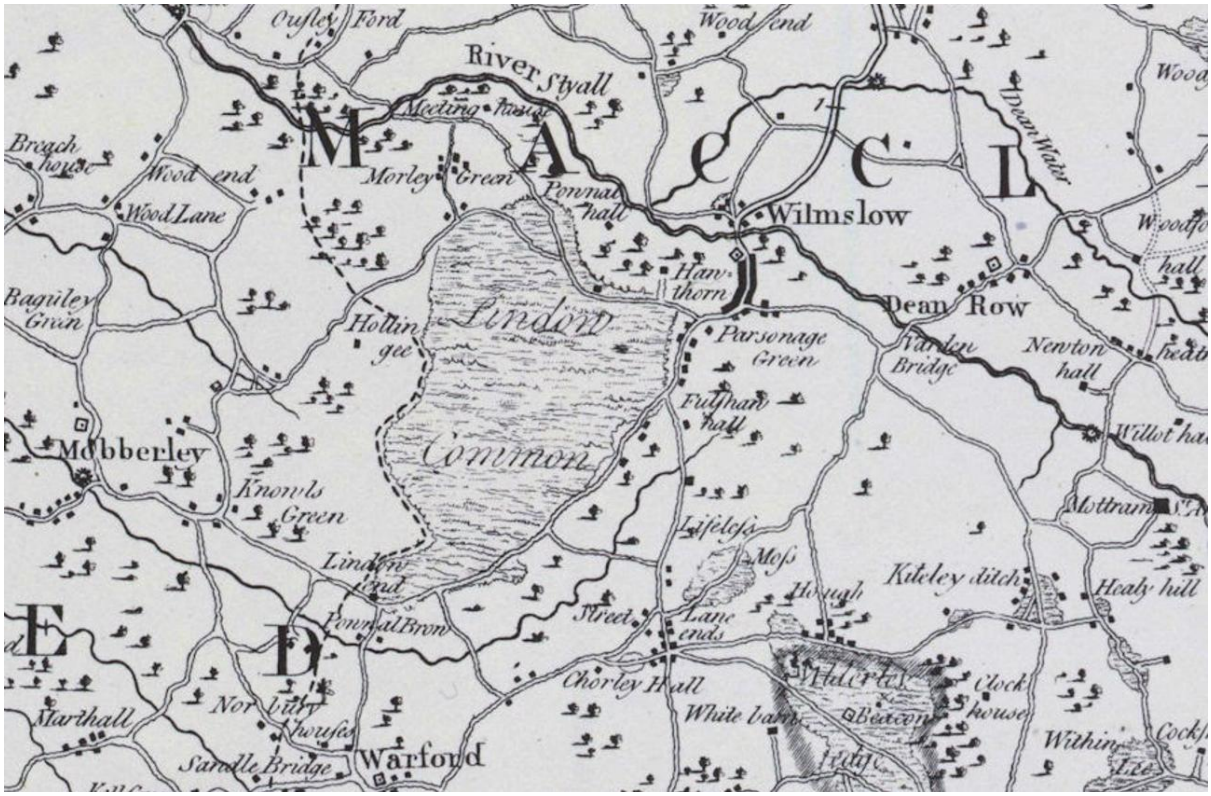
Map 2: Lindow Moss Landscape Character Area (LCA)

'Wilmslow's Countryside: A Landscape Character Assessment'

Produced as part of the Wilmslow Neighbourhood Plan (2020)



Map 3: Broad areas with modern concentrations of rectilinear field patterns. Morley Green is in the north, Moor Lane/Strawberry Lane central, Row of Trees to the South and Paddockhill abutting Row of Trees to the immediate northwest.



Map 4: Burdett's map of Cheshire, excerpt

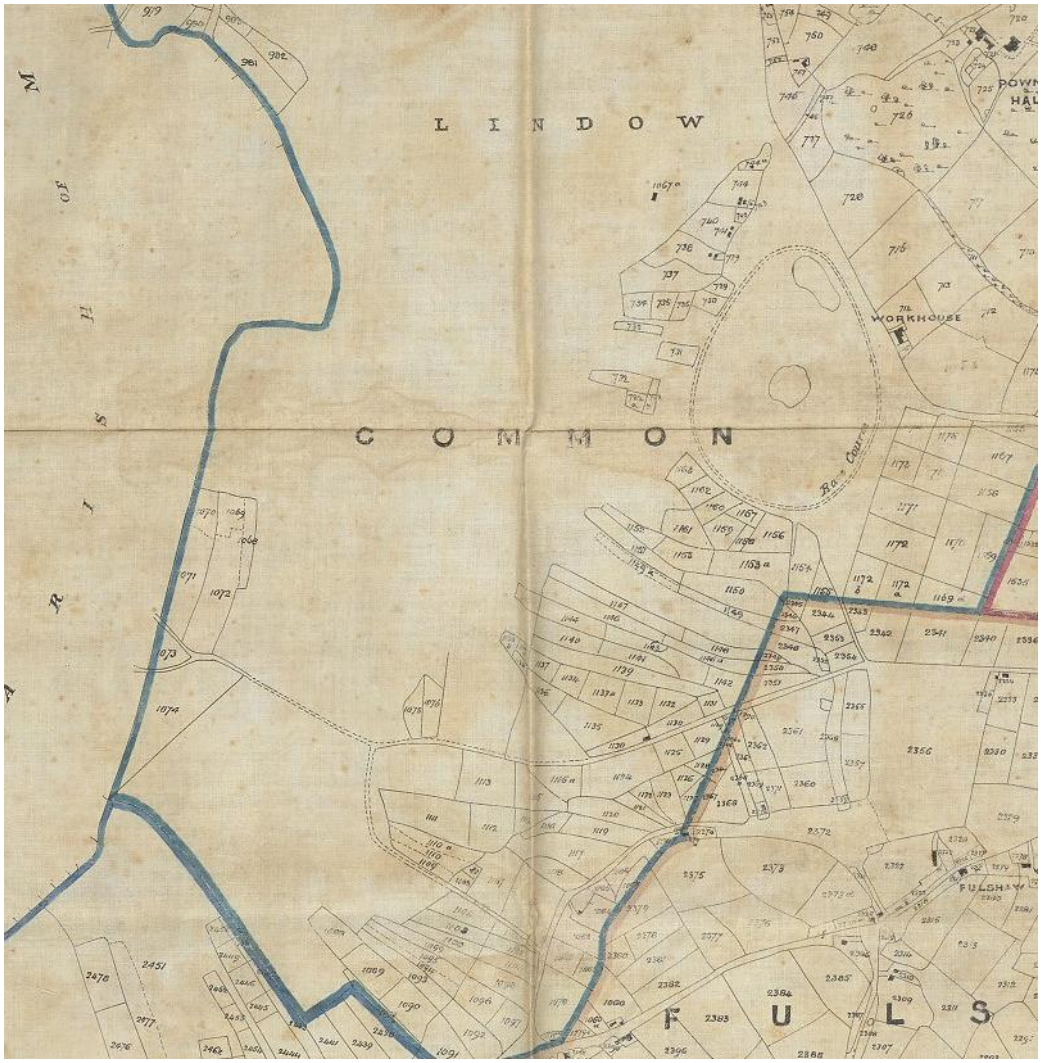
Stuart, James and Burdett, Peter Perry. 'The county palatine of Chester: reduced from the large survey in four sheets'. 1794. Reproduced with the permission of the National Library of Scotland

Map 5: JRL20030914. EGR14/17/32/1. Plan of the Parish of Wilmslow

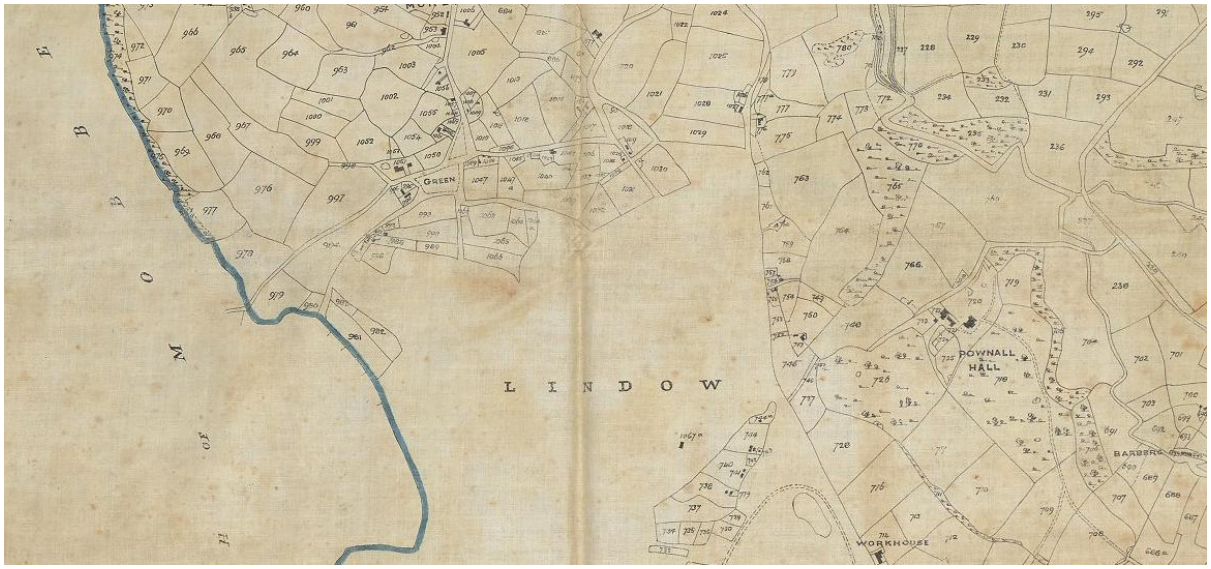
‘Plan of the whole of Wilmslow parish, compiled by James Cawley of Macclesfield, surveyor. The plan shows the boundaries of the townships of Pownall Fee, Bollin Fee, Fulshaw and Chorley. Every parcel of land in the parish is delineated and numbered, and the plan also shows the Manchester to Crewe railway, roads and tracks, buildings, woodland, and areas of waste and common, including Lindow Common. There is an enlarged plan of the town of Wilmslow’

Image courtesy of John Rylands Library, University of Manchester.

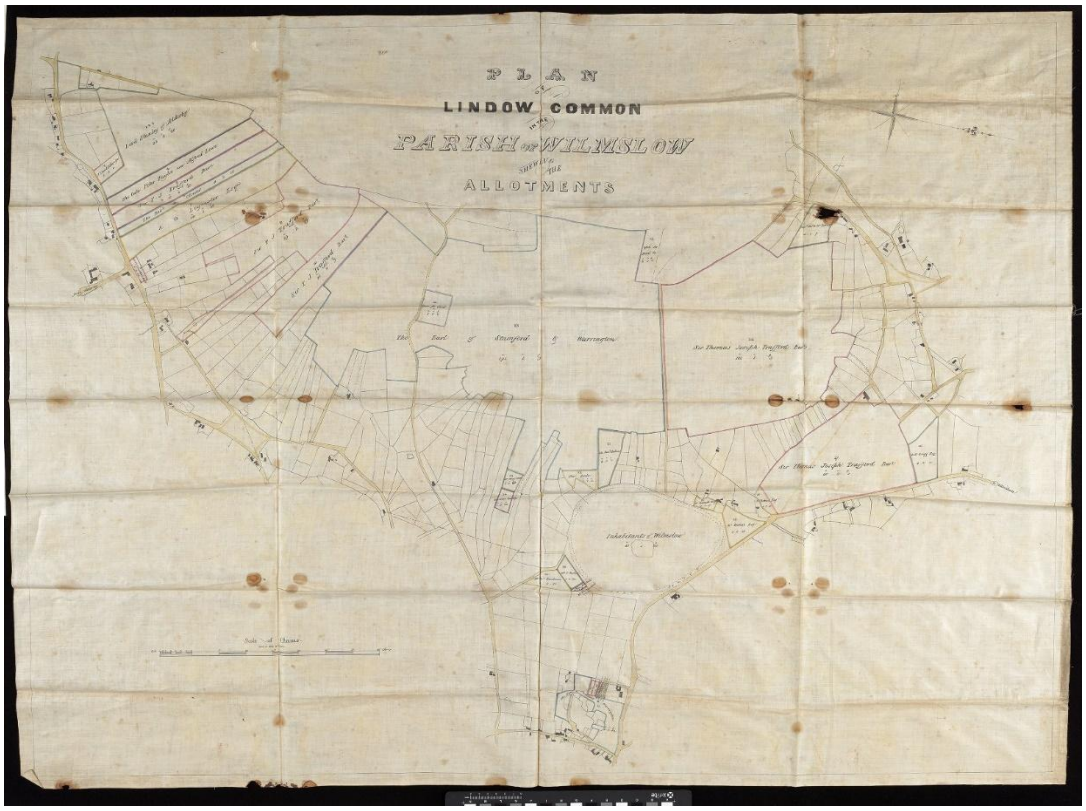
Map 6: Row of Trees (black box) from JRL20030914



Map 7: Moor Lane from JRL20030914



Map 8: Morley Green from JRL20030914

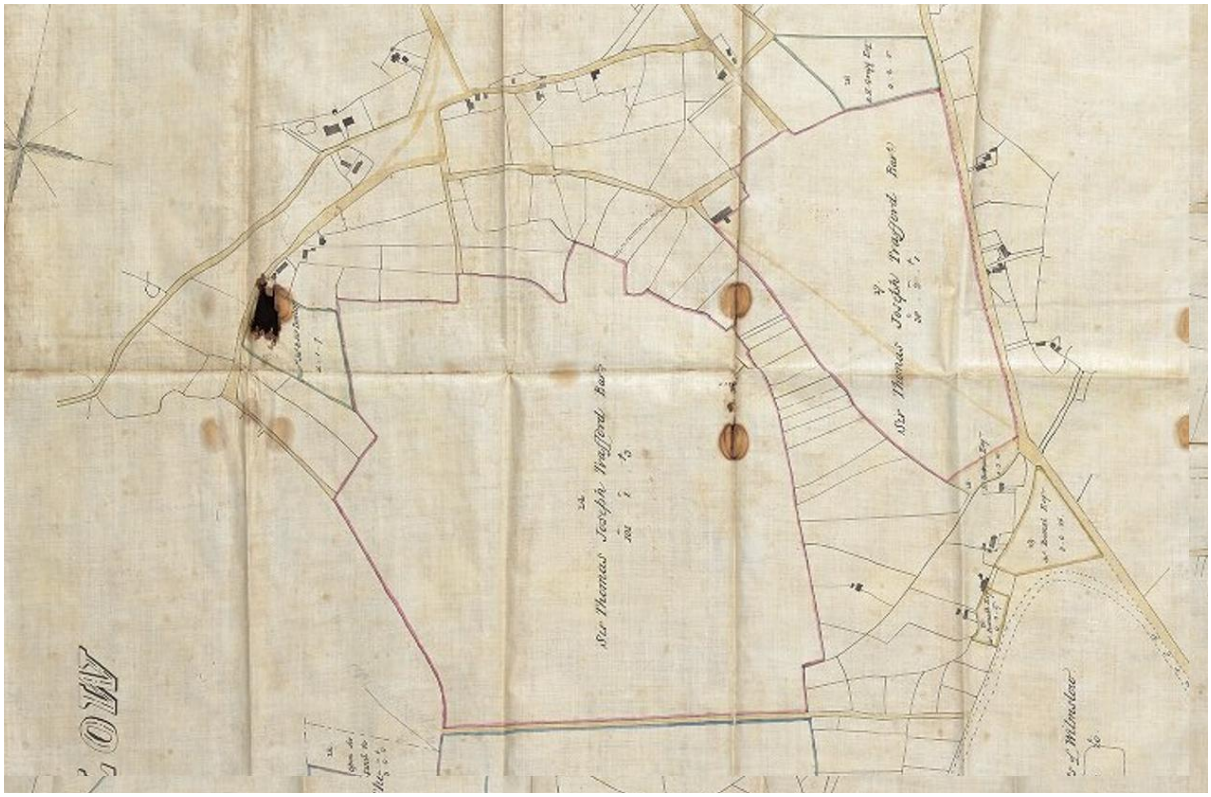


Map 9: JRL20030915. EGR14/17/32/2. Plan of Lindow Common in Wilmslow

Plan of Lindow Common in Wilmslow, showing the allotments. The parcels of land allotted to the 7th Earl of Stamford and to Sir Thomas Joseph de Trafford bart are numbered and annotated with their acreages. Other parcels of land are shown, together with surrounding roads and buildings.

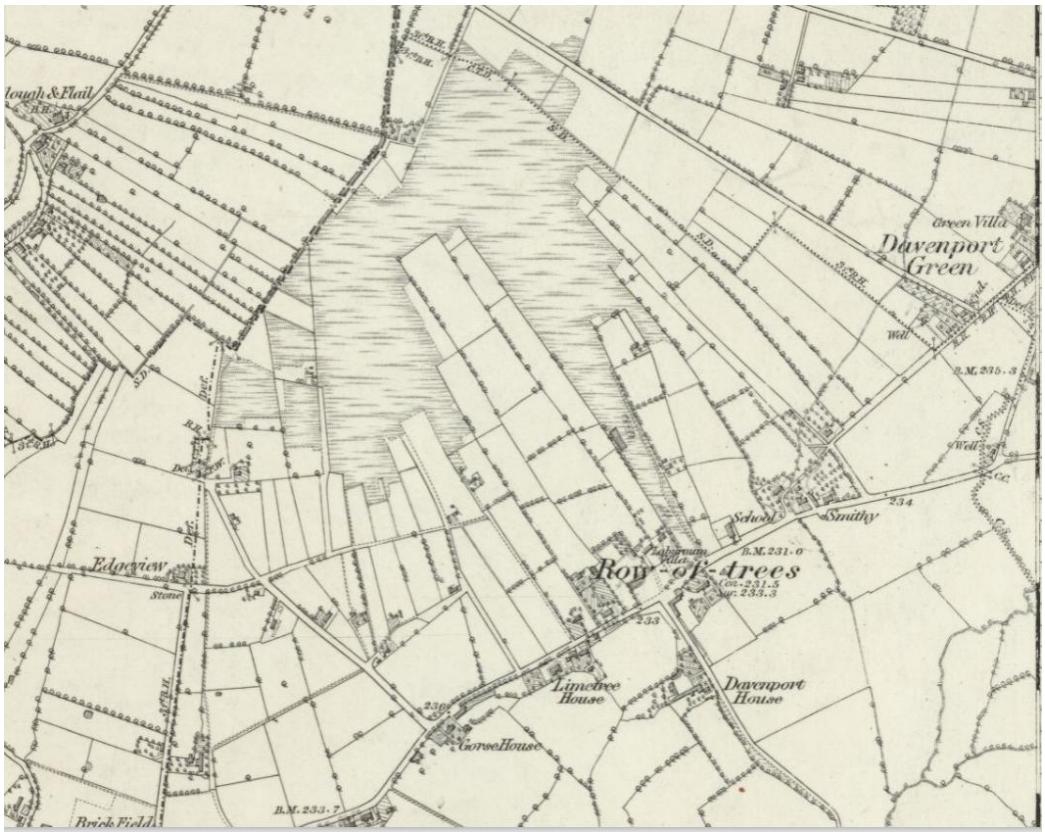
Map 10: Row of Trees from JRL20030915

Map 11: Moor Lane from JRL20030915

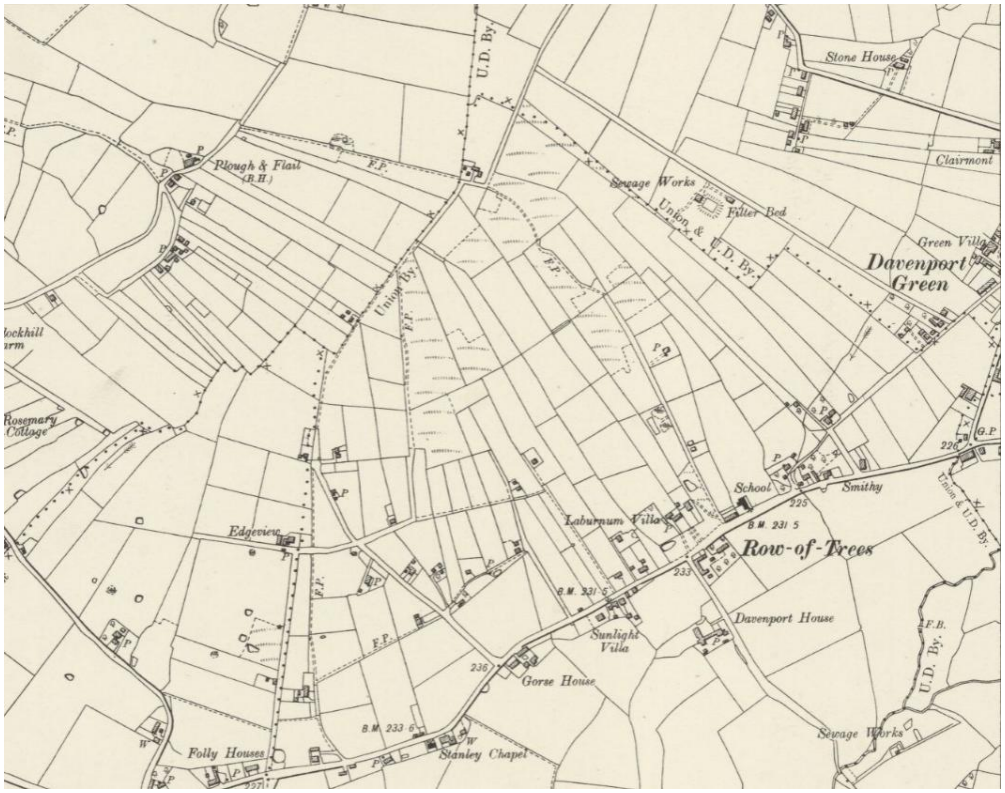


Map 12: Morley Green from JRL20030915

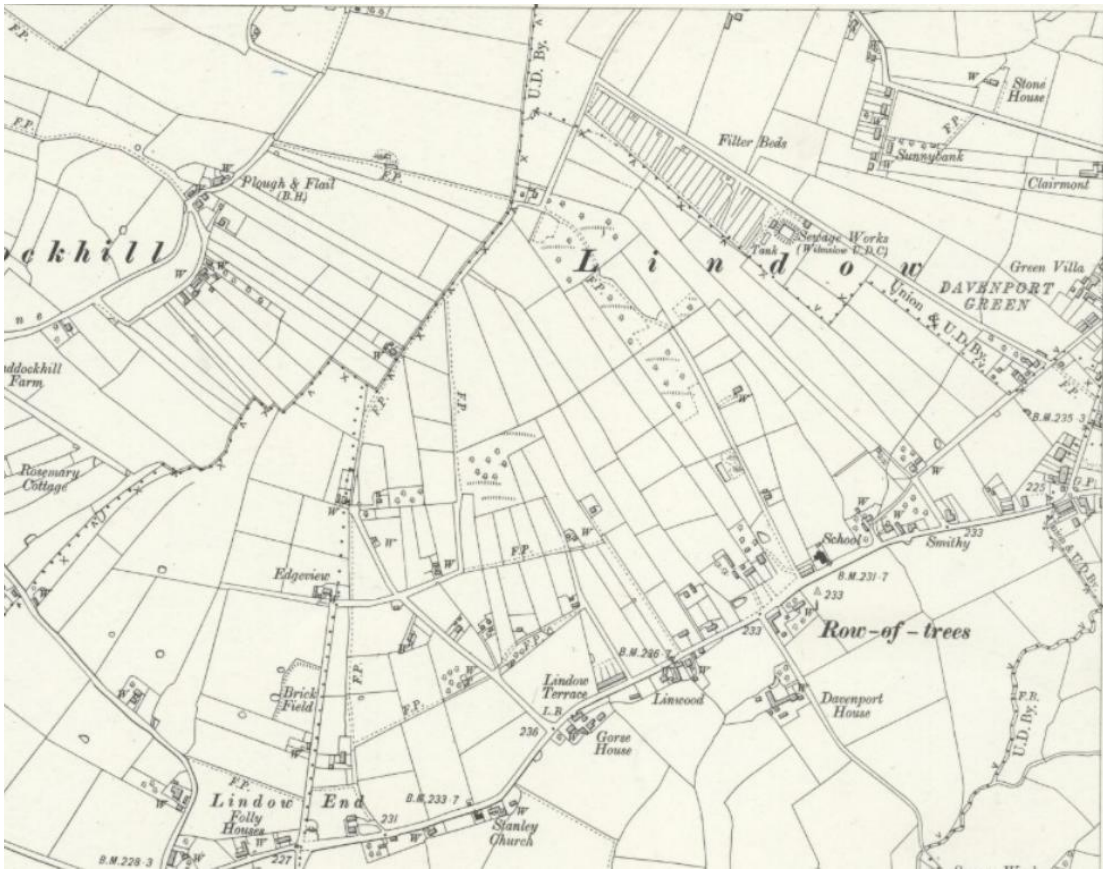
Maps 13-29 below are reproduced with the permission of the National Library of Scotland.



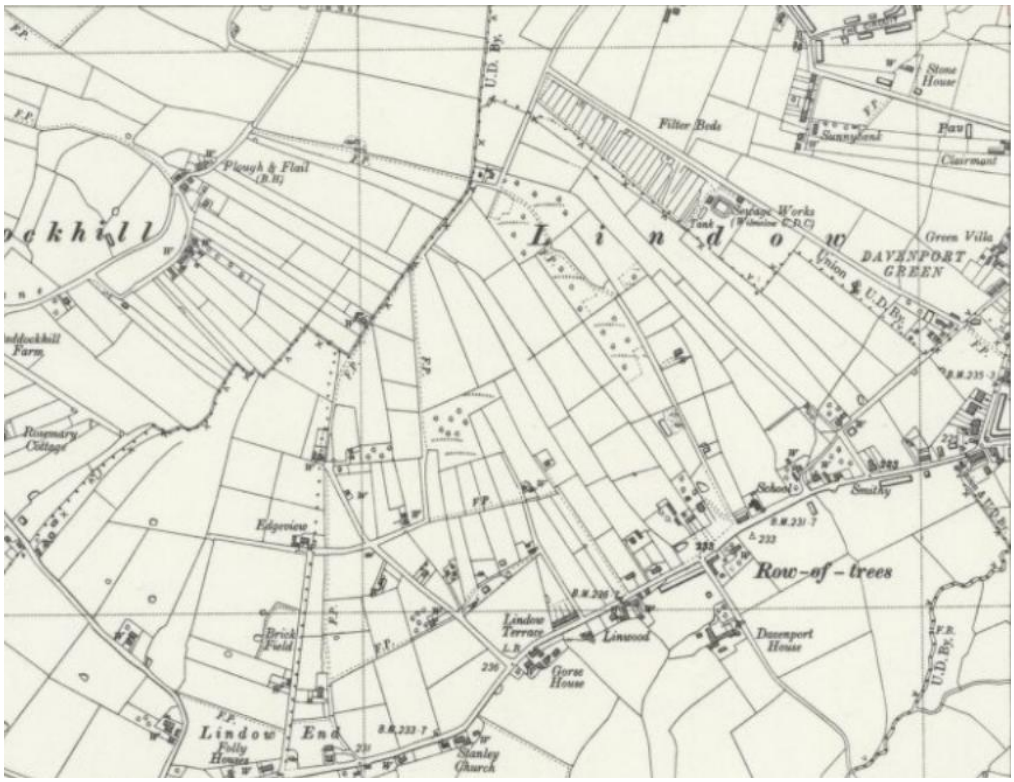
Map 13: **Row of Trees and Paddockhill**, OS Six Inch Eng Wal, Cheshire Sheet XXVIII. Pub. 1882



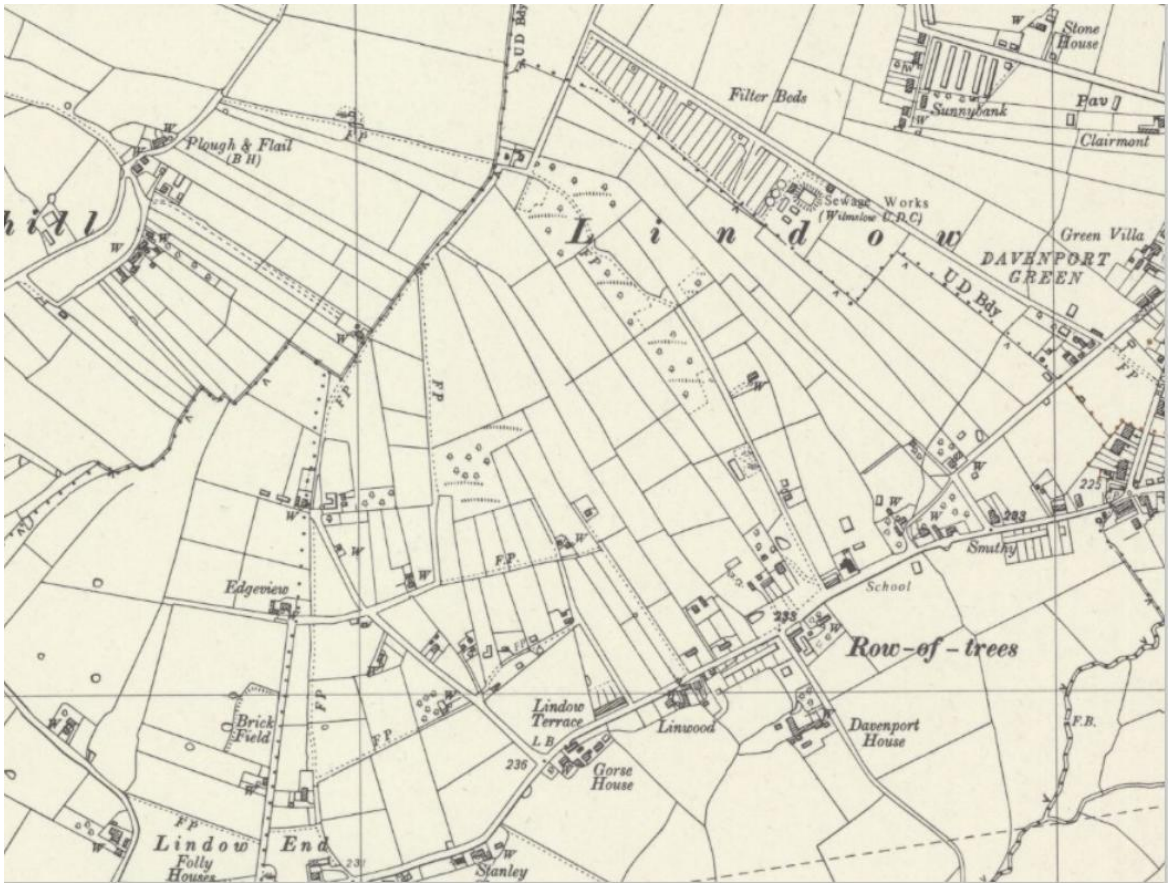
Map 14: Row of Trees and Paddockhill, OS Six Inch England and Wales, Cheshire Sheet XXVIII. Pub. 1899



Map 15: Row of Trees and Paddockhill, OS Six-inch England and Wales. Cheshire Sheet XXVII.NE. Pub. 1911



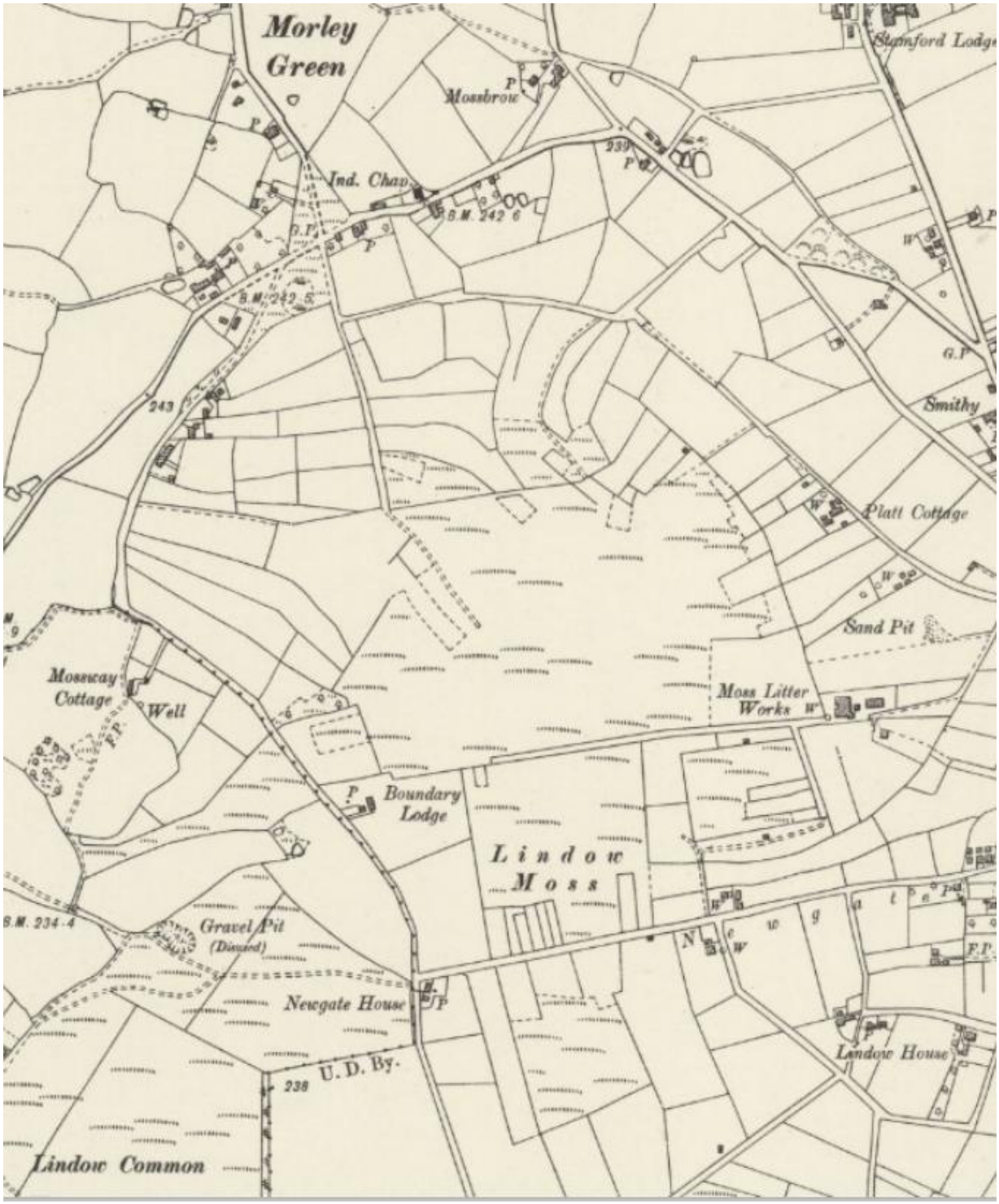
Map 16: Row of Trees and Paddockhill, OS Six-inch England and Wales. Cheshire Sheet XXVII.SE. Pub. 1946



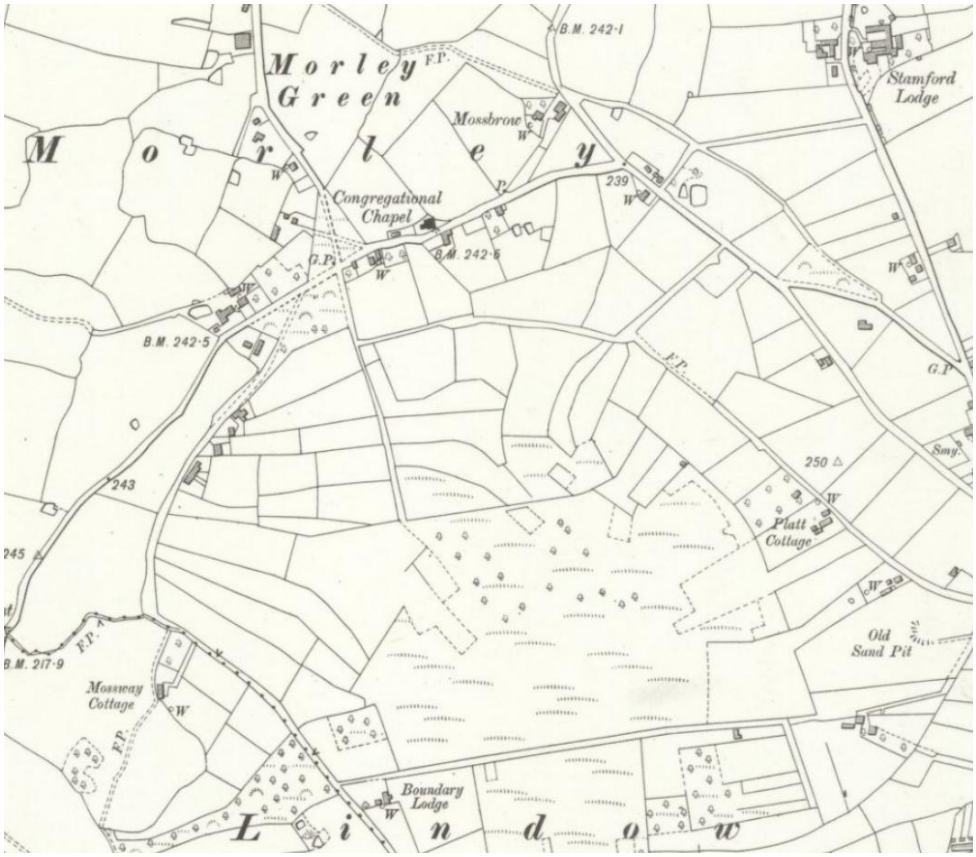
Map 17: Row of Trees and Paddockhill, OS National Grid Maps, SJ87NW – A, Pub. 1954

Map 18: Row of Trees and Paddockhill, OS National Grid Maps, SJ8279-SJ8379 – AA, Pub. 1971

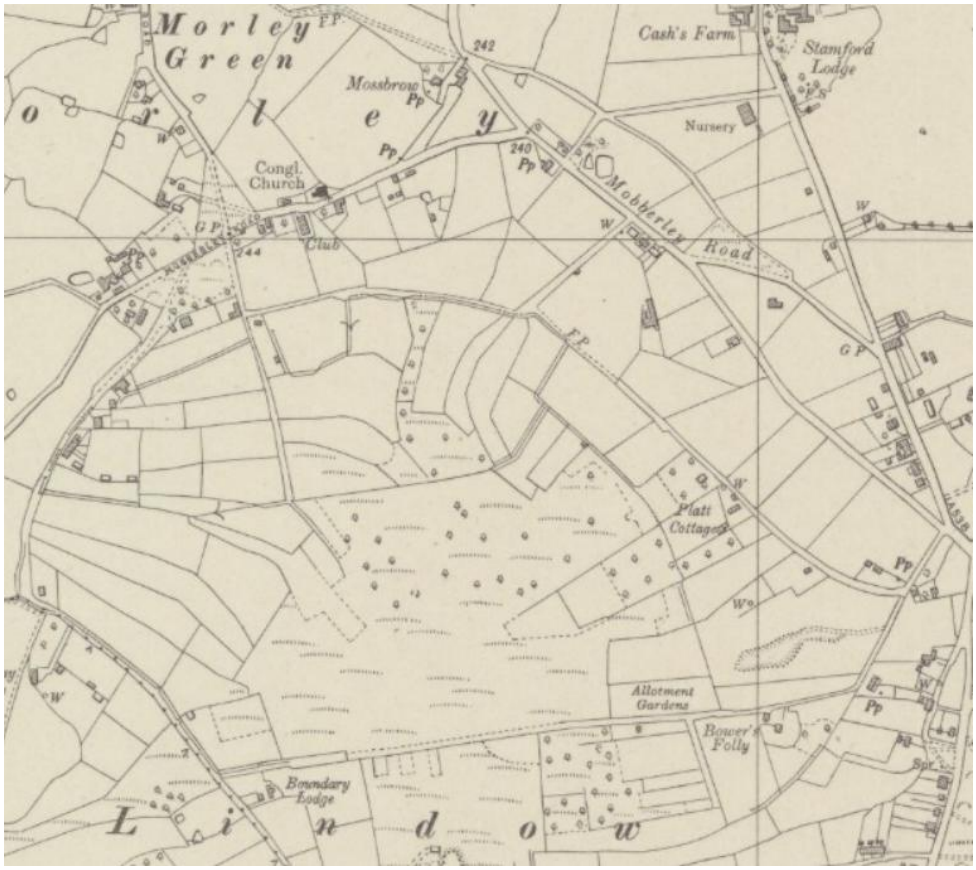
Map 19: **Morley Green**, OS Six Inch Eng Wal, Cheshire Sheet XXVII. Pub. 1882



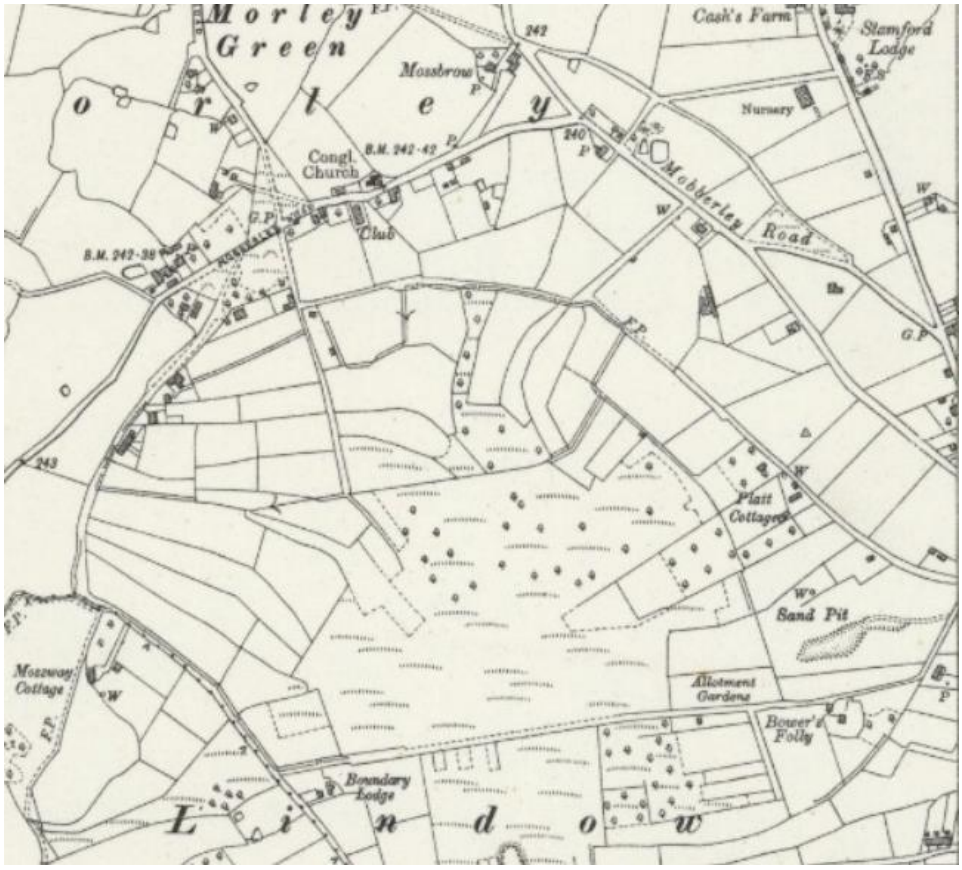
Map 20: Morley Green, OS Six-inch England and Wales, Cheshire Sheet XXVII. Pub. 1899



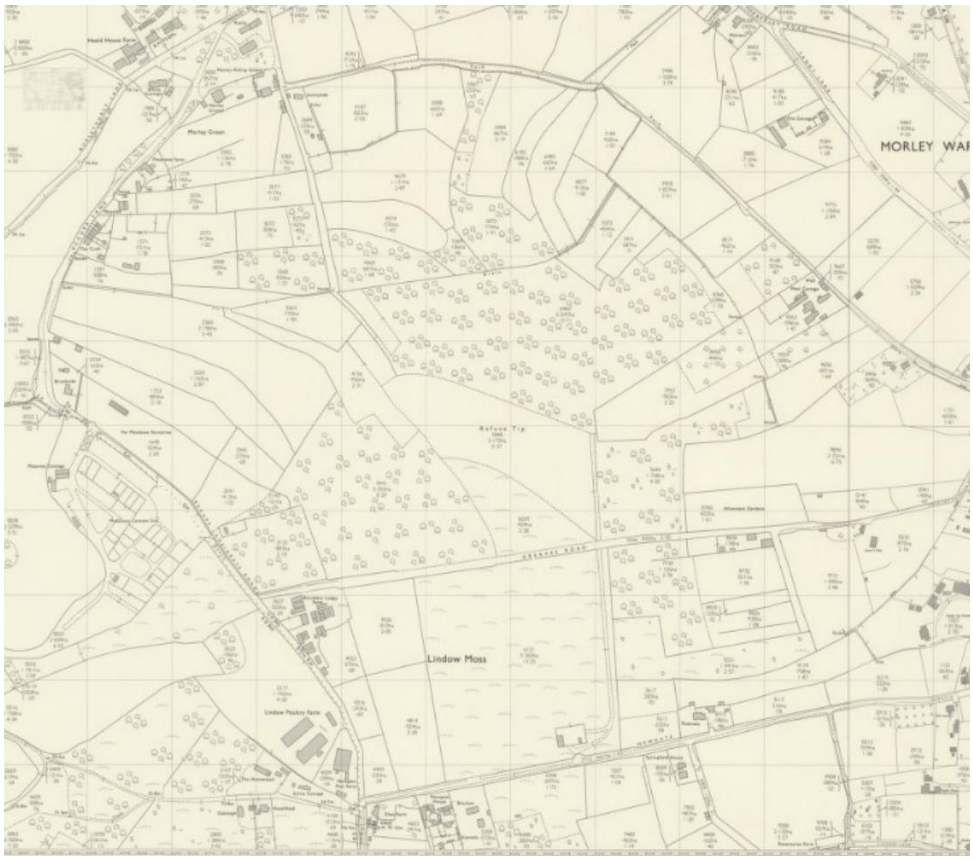
Map 21: Morley Green, OS Six-inch England and Wales, Cheshire Sheet XXVII.SE. Pub. 1910



Map 22: Morley Green, Ordnance Survey National Grid Maps. SJ88SW - A. Pub. 1954

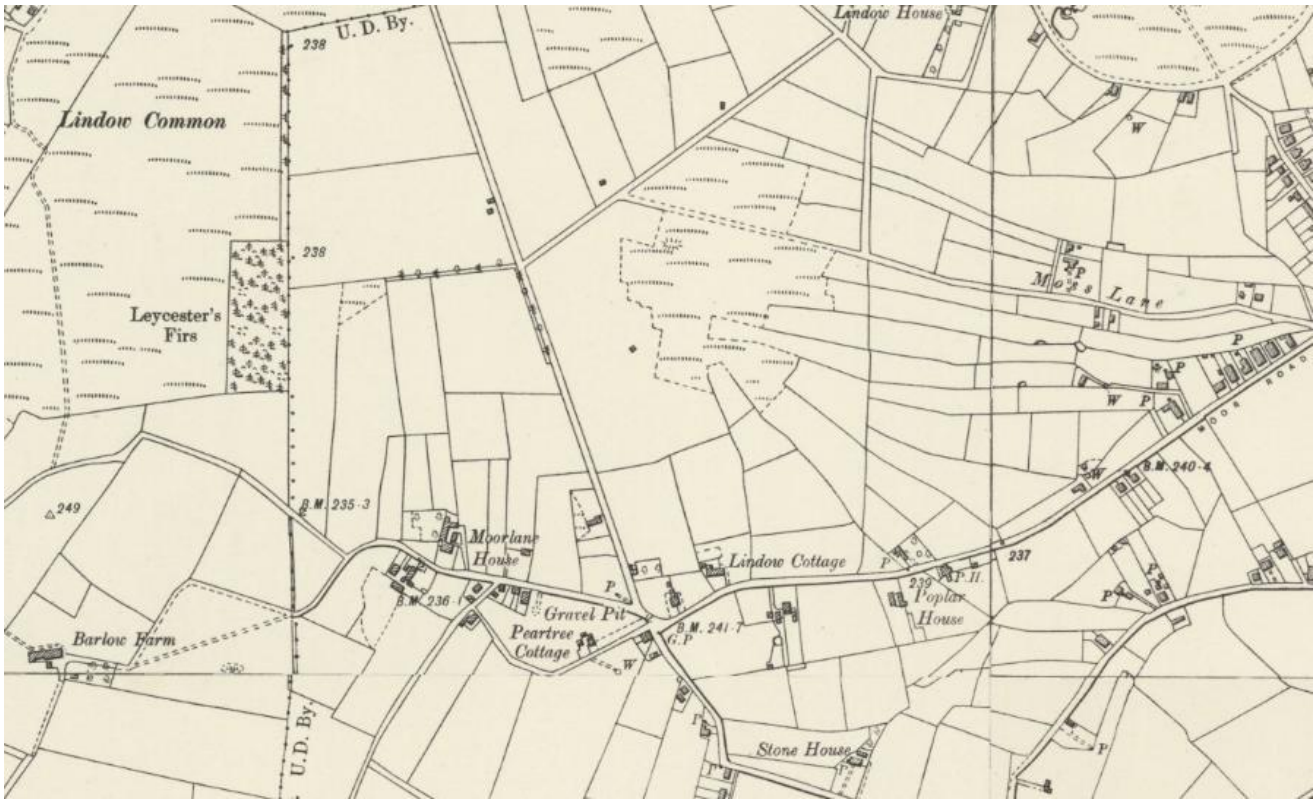


Map 23: Morley Green, OS Six-inch England and Wales. Cheshire Sheet XXVII.NE. Pub. 1935



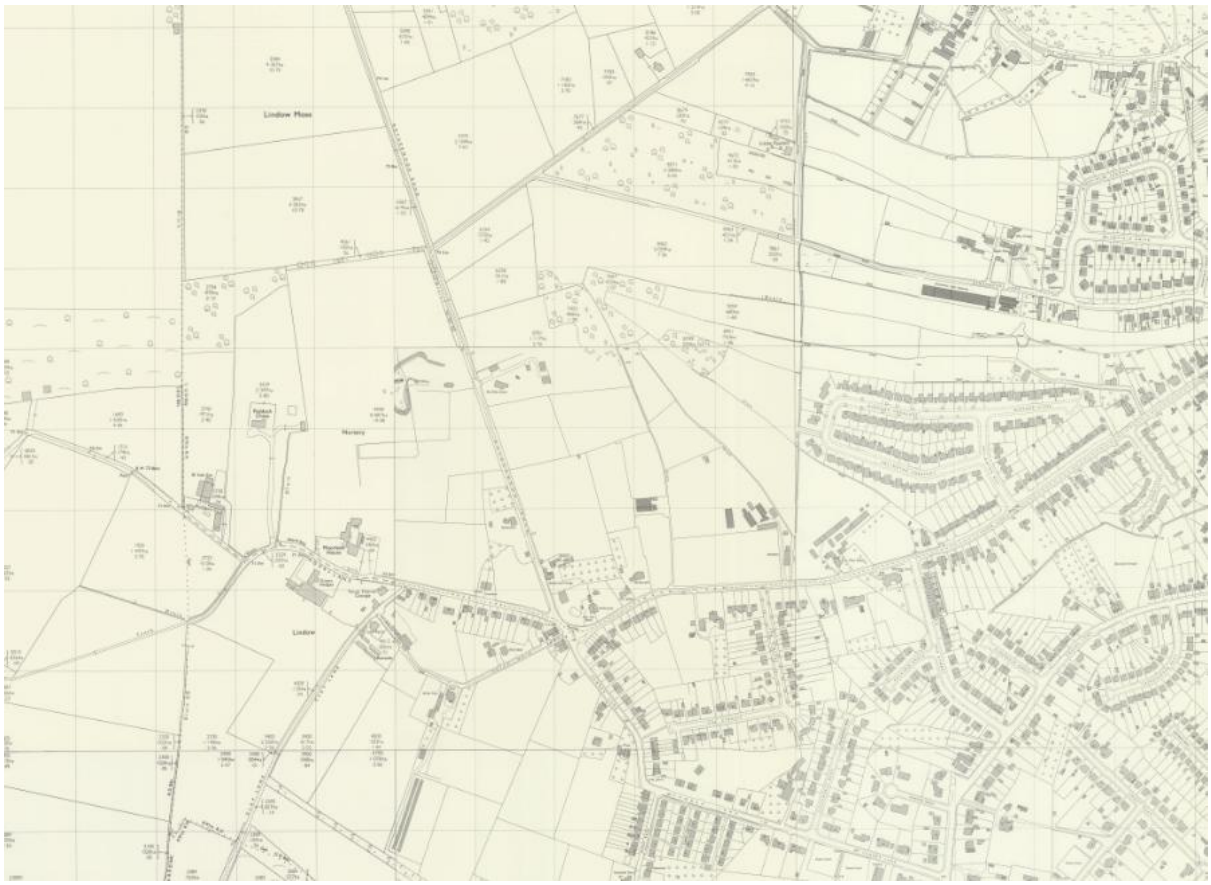
Map 24: Morley Green, Ordnance Survey National Grid Maps. SJ8281-SJ8381 - AA. Pub. 1970

Map 25: **Moor Lane**, OS Six inch, Cheshire Sheets XXVII and XXVIII, Pub. 1882, excerpt. Historic mapping is harder to source for this area as it sits betweeen several sheets



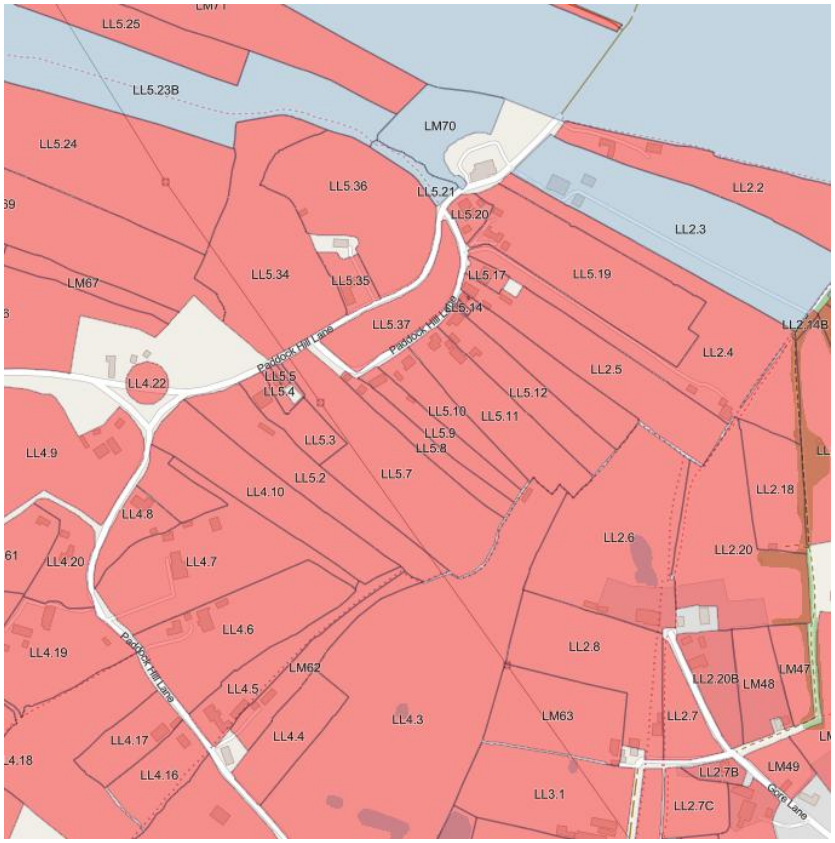
Map 26: Moor Lane, OS Six inch 2nd Ed. Cheshire sheets XXVII.NE, XXVIII.NW and XXVII. SE. Pub. 1899, excerpt.

Map 27: Moor Lane, OS 25 Inch Cheshire Sheets XXVIII.9, XXVII.8 and XXVIII.5, Pub. 1909

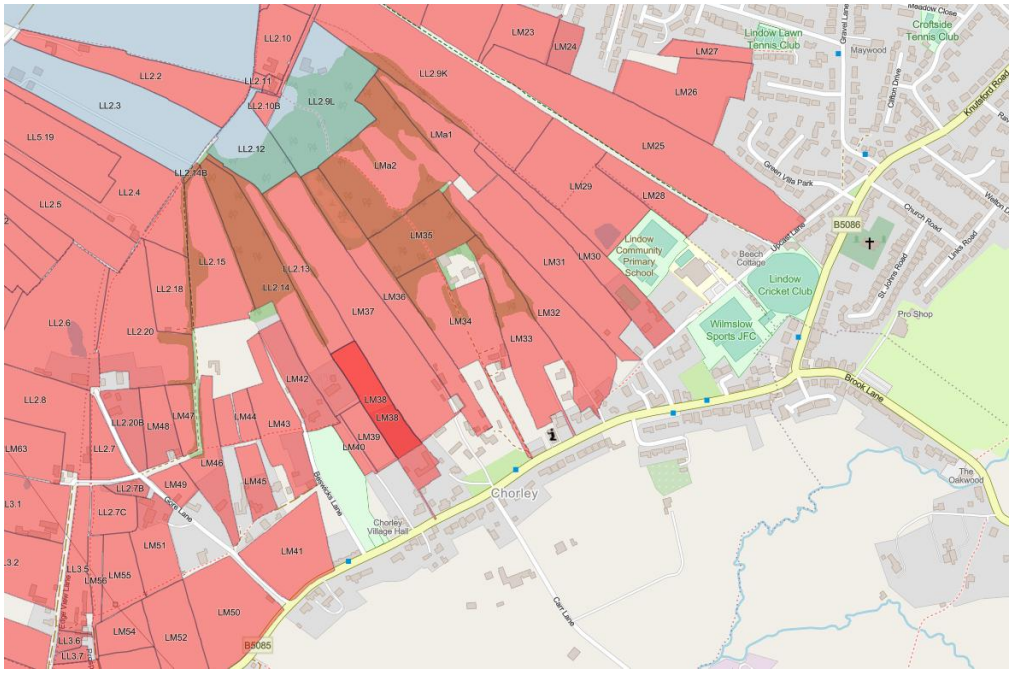


Map 28: Moor Lane, OS 1:1,250 – 1:2,500. 1944-1974, excerpt. Note beginnings of development of secondary woodland, particularly to the north of Battery Lane and a smaller area to the East of Rotherwood Road.

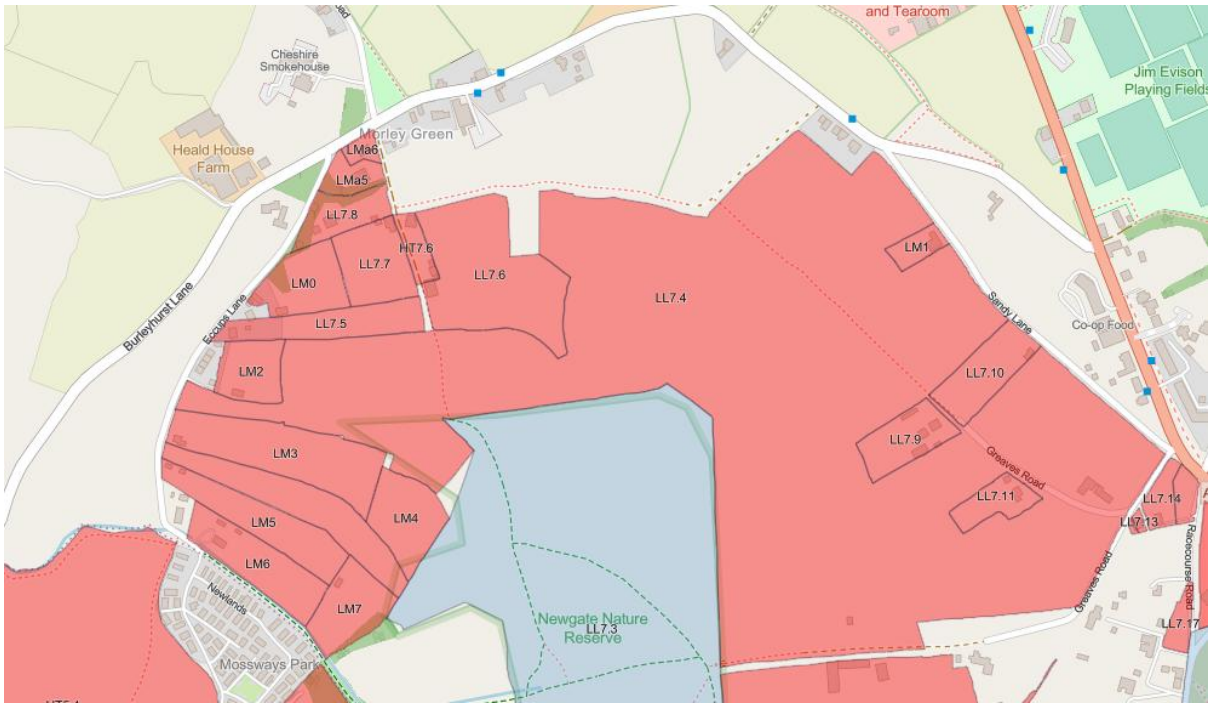
Map 29: OS Six inch, Cheshire Sheets XXVII and XXVIII, Pub. 1882. Focus is on the two fields named ‘Brick Field’ at the northern end of Clay Lane



Map 30: Paddockhill, modern land ownership, reflective of field patterns in the main. Map data © OpenStreetMap, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map Layer by Esri. Content produced and owned by TEP



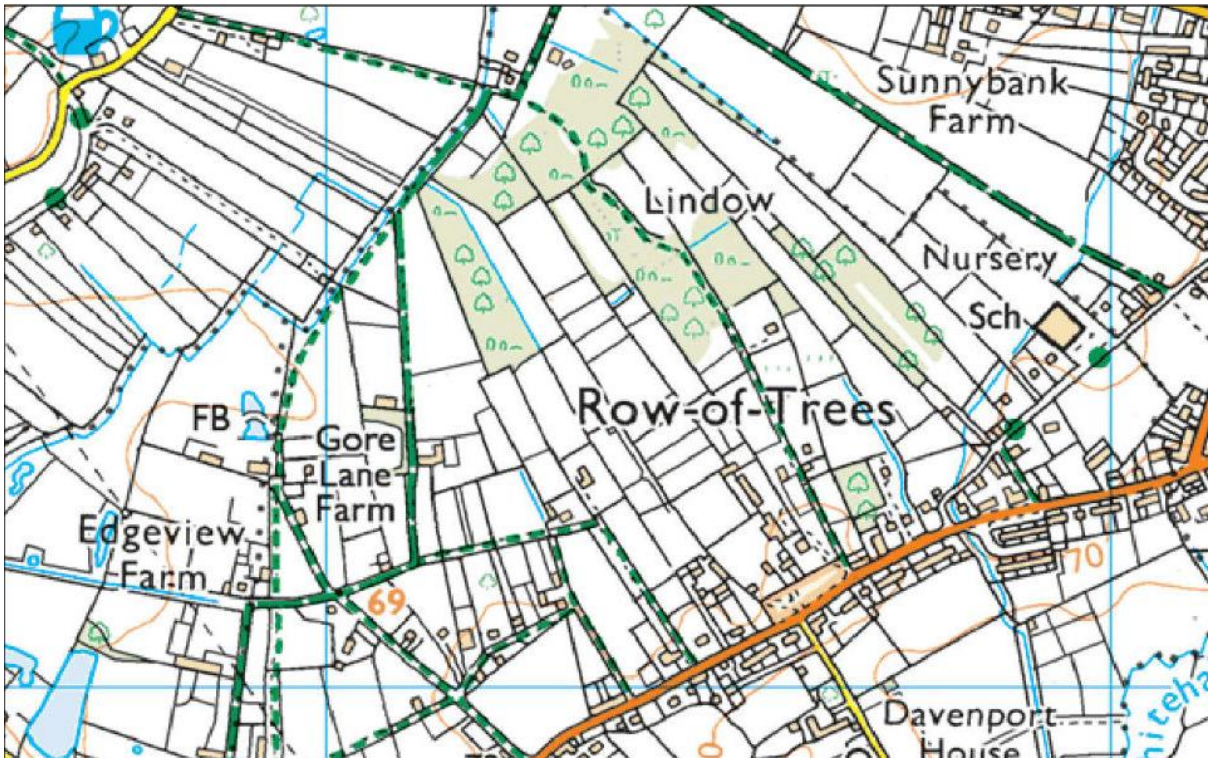
Map 31: Row of Trees, modern land ownership, reflective of field patterns in the main. Map data ©OpenStreetMap, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map Layer by Esri. Content produced and owned by TEP



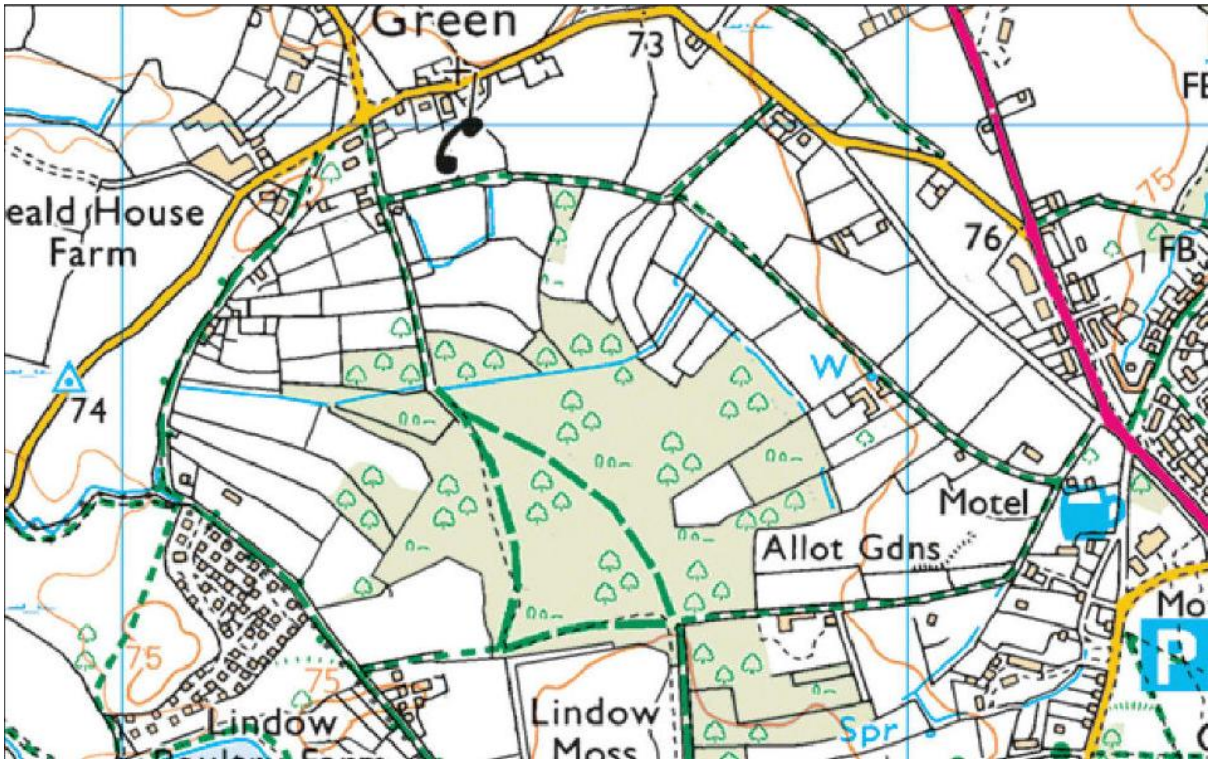
Map 32: Morley Green, modern land ownership, reflective of field patterns in the main. Map data ©OpenStreetMap, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map Layer by Esri. Content produced and owned by TEP.

In this example, the image is misleading to an extent due to the large parcel under single ownership (LL7.4), the aerial image below gives greater clarity

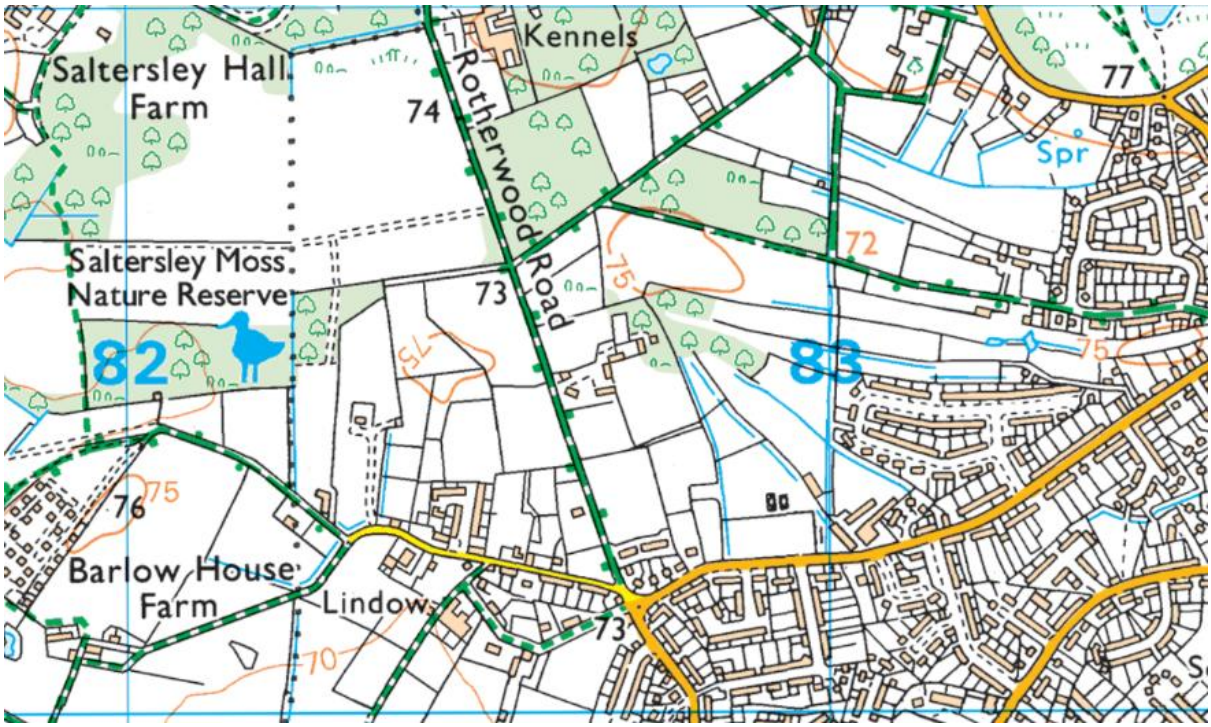
Map 33: Morley Green aerial image. Sourced via Google Maps. Imagery ©2024 Airbus, Maxar Technologies. Map data ©2024



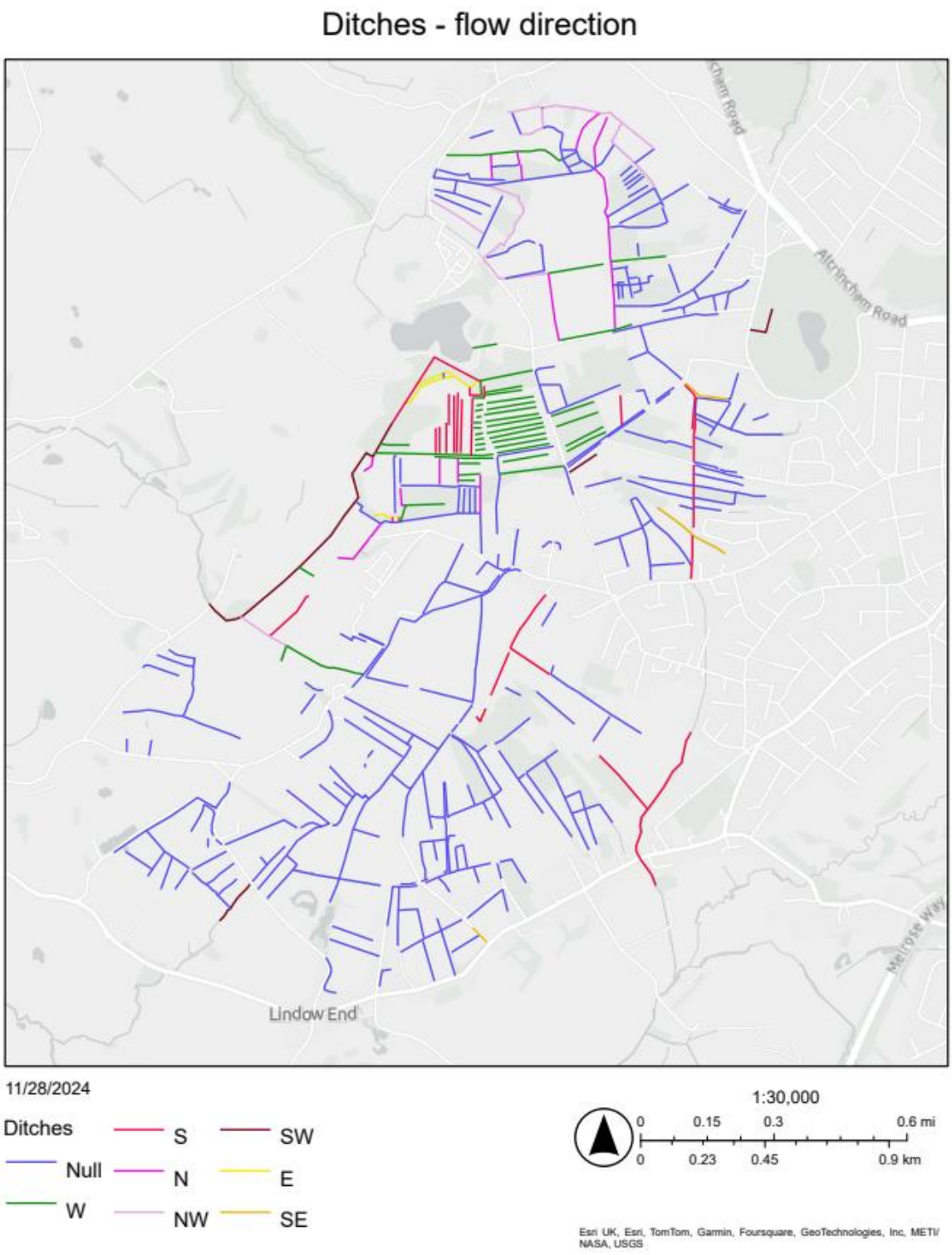
Map 34: Row of Trees and Paddockhill, modern OS data © Crown copyright and database rights 2024 OS AC0000818457



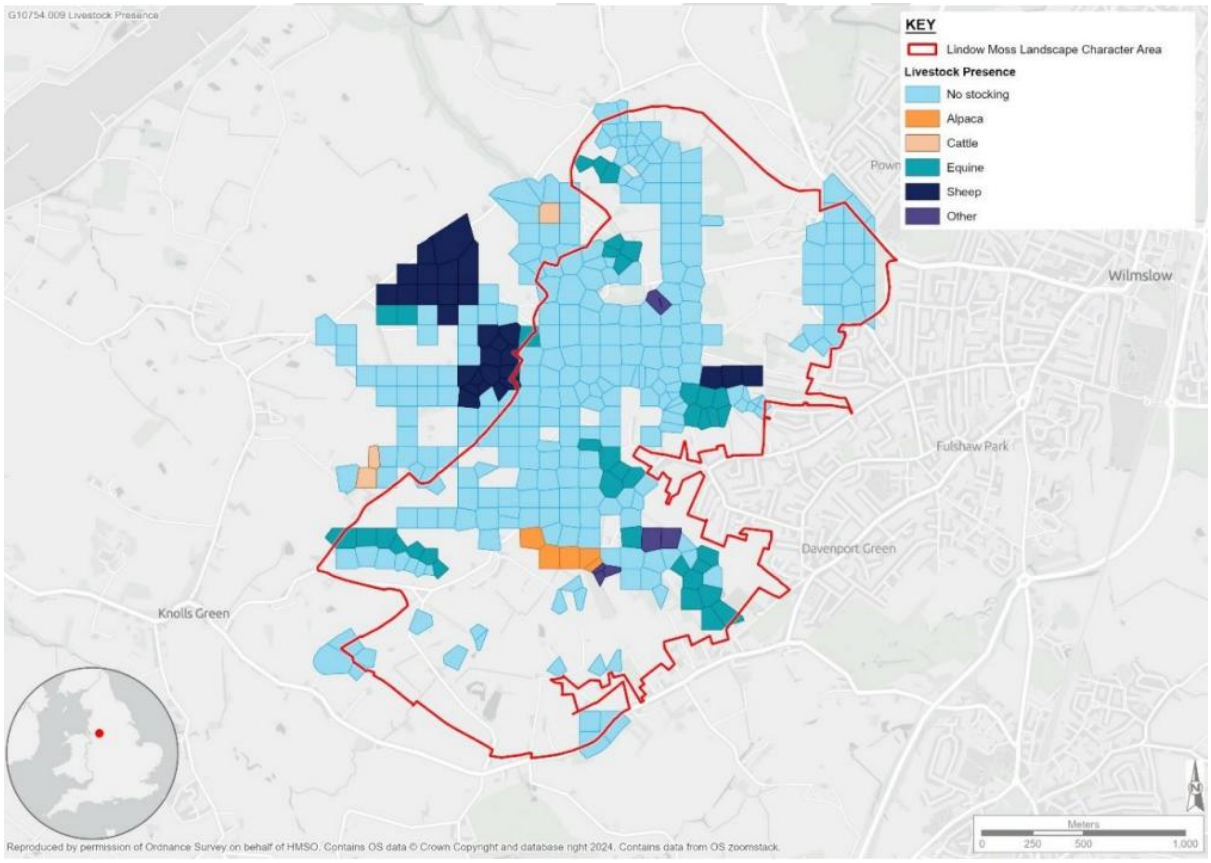
Map 35: Morley Green, modern OS data © Crown copyright and database rights 2024 OS AC0000818457



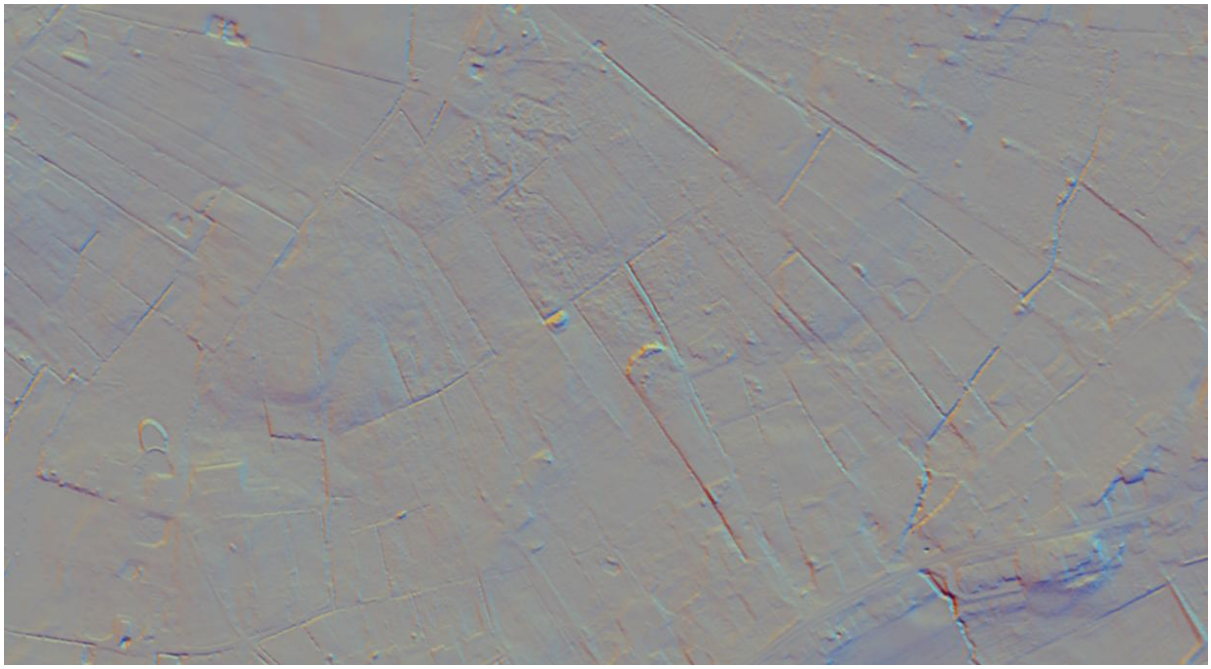
Map 36: Moor Lane, modern OS data © Crown copyright and database rights 2024 OS AC0000818457



Map 37: Modern ditches. Derived from a report by Mersey Rivers Trust, 2024.



Map 38: Model-derived estimation of stocking type across the LCA. Derived from ground-truthed point data. Draft report into peat and the LCA – TEP 2024.



Map 39: Row of Trees, LiDAR DTM 50cm-1m Eng Scot Wal (plus Relief Visualisation ToolBox colourisation), via NLS maps, see Using LiDAR layers for landscape research - Map images - National Library of Scotland)

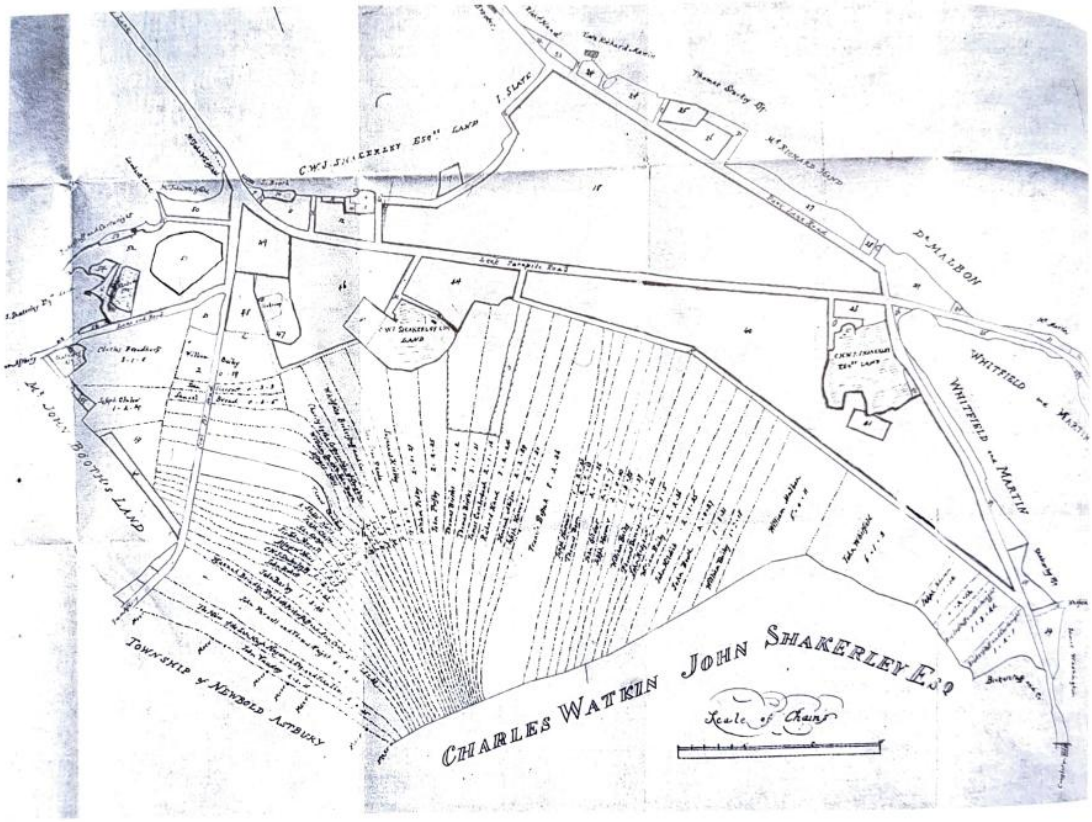
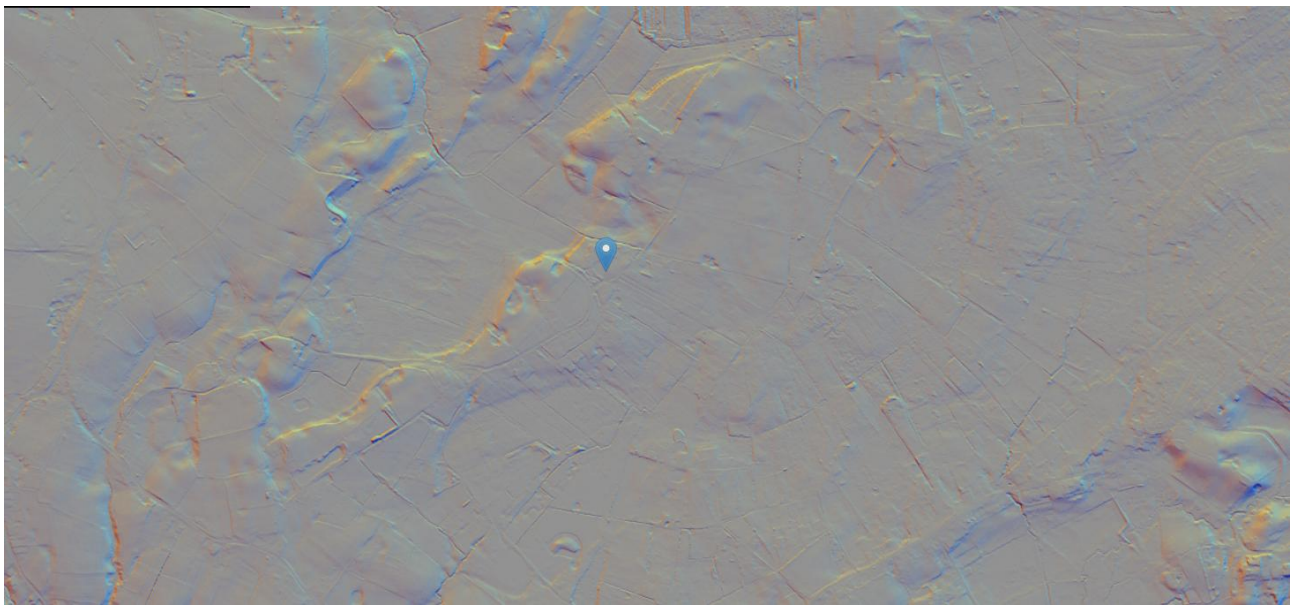
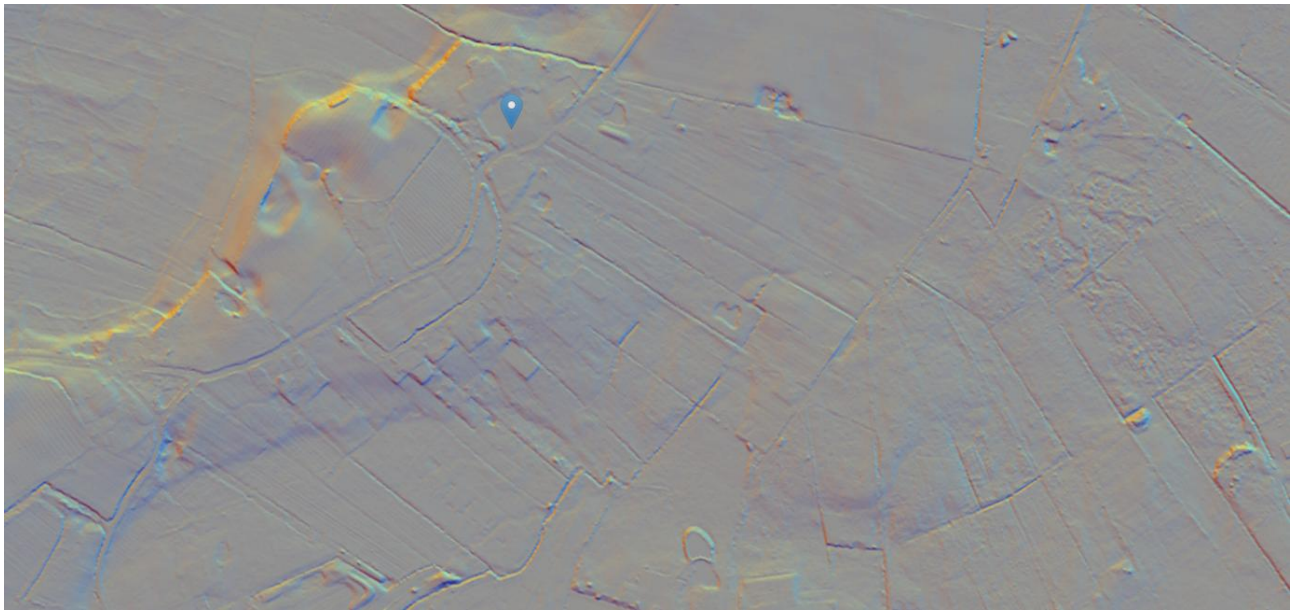


Plate 13 Congleton Enclosure Award 1795, showing the former moss-rooms on the north side of Congleton Moss (by permission of Cheshire County Council Archives and Local Studies QDE 2/8)

Map 40: Historic extent of moss rooms, Congleton Moss. Leah, M. D. et al. *The Wetlands of Cheshire*. Lancaster University Archaeological Unit, 1997. p92



Map 41: Modern LiDAR image showing the Paddockhill and Row of Trees areas. The Plough and Flail pub is marked and the fields to the east are the Paddockhill potential moss rooms. LiDAR DTM 50cm-1m Eng Scot Wal (plus Relief Visualisation ToolBox colourisation), via NLS maps, see Using LiDAR layers for landscape research - Map images - National Library of Scotland)



Map 42: The same image as above but zoomed in on the Paddockhill fields. The ridge can clearly be seen, as can the direction of the more gentle slope to the south east. LiDAR DTM 50cm-1m Eng Scot Wal (plus Relief Visualisation ToolBox colourisation), via NLS maps, see Using LiDAR layers for landscape research - Map images - National Library of Scotland)

Appendix 2: Table of moss room locations

Some notes on the table and methodology

The table below has been assembled using a desk-based approach, reviewing any rectilinear field patterns within the LCA, with a focus on parcels on the fringes of the historic Lindow Common. This has been achieved by overlaying the 1777 Burdett map on a modern basemap, as well as by visual inspection of field patterns from aerial imagery and modern OS mapping. The parcels are identified based on land ownership data, as the majority of former moss rooms in the modern landscape are still registered as parcels with HM Land Registry as individual narrow strips, even where ownership may encompass multiple moss rooms[63].

The codes used below have been applied by GCLM staff as part of the work to identify landowners throughout the LCA. They were applied to anonymise land ownership data and do not correspond to HMLR codes. Approximate grid references are included, usually for the centre of a land parcel, and an approximate area (Row of Tree, Morley Green etc) has been applied for ease of interpretation per the main body text of the report, although these are quite general as applied and should be interpreted as such. Each ownership parcel has also been cross referenced with the tithe maps for the area (courtesy of Cheshire East Tithe Maps Online at Cheshire Tithe Maps Online)[64] and a parcel name applied as displayed on the tithe map. This often provides a level of insight into former land use, although it is not a complete dataset. This information should be taken at face value and only cursory conclusions drawn. The most interesting aspect is the number of parcels named 'intake'. This is a clear reference to enclosure of former peat extraction sites and give the clearest indication that the parcel is indeed a former moss room. Where it is thought to be of interest some parcels have been included that are clearly moss rooms on the tithe map but do not exist on the ground today (such as parcel LMS12).

Parcel ID	Grid Reference	Approximate Area	Tithe map parcel name	Notes
LL7.5	SJ 82253 81771	Morley Green	Croft	
LL 7.4 (part of)	SJ 82235 81658	Morley Green	Lindow Moss	Not shown as enclosed on the tithe map (1841) but shown as enclosed in the allotment map (1840), although not as a moss room, rather as one rectangular parcel. By the time of the 1882 map these parcels are divided and in most cases hedged. Note the change in terminology from the C18th 'Common' to mid C19th 'Moss' – possibly reflecting enclosure, although the land still functioned as a common where unenclosed
LM6	SJ8216781492	Morley Green	Inclosure	
LM5	SJ8217781535	Morley Green	Inclosure	
LL7.4 (part of)	SJ 82213 81570	Morley Green	Lindow Moss	

[63] Although it is surprisingly rare for *ownership parcels* to encompass multiple moss rooms, even where tenants may have access to multiple adjoining strips. Even where adjoining strips are owned by the same person or persons, they still tend to be registered as induvial rectilinear fields.

[64] © Cheshire Archives and Local Studies

LM3 and LM4	SJ 82166 81633	Morley Green	Lindow Moss	
LL7.4 (part of)	SJ 82614 81829	Morley Green	Lindow Moss	
LL7.4 (part of)	SJ 82649 81827	Morley Green	Lindow Moss	
LL7.9	SJ 82920 81632	Morley Green	Lindow Moss	
LL7.10	SJ 83022 81719	Morley Green	Lindow Moss	
LL7.4 (part of)	SJ 82955 81602	Morley Green	Lindow Moss	
LMS12	SJ 83019 81140	Newgate[65]	Intake	Field pattern does not exist today
LL0.6 and LL0.7	SJ 83044 81042	Newgate	None	Modern field pattern and ownership is comprised of two former moss rooms now fenced as one. Plot to immediate East is named 'Intake', suggesting that this is the same
HT3.7	SJ 83133 80698	Moor Lane[66]	Intake	Modern land ownership parcel made up of three tithe map parcels
HT3.7B	SJ 83150 80580	Moor Lane	Intake, Inclosure	Modern ownership takes in two tithe map parcels
LSSM3	SJ 83070 80527	Moor Lane	None	Modern ownership extends further towards bog in rectilinear pattern
LSSM4	SJ 83058 80487	Moor Lane	None	South of this parcel (modern Burford Crescent) contains additional moss rooms on tithe map
LM8	SJ8297580468	Moor Lane	Lindow Moss	Not shown as enclosed on tithe map but enclosed by 1882 map
LM9	SJ8296280441	Moor Lane	Intake	
LM10	SJ8296680418	Moor Lane	Lindow Moss	Not shown as enclosed on tithe map but enclosed by 1882 map
LM12	SJ 82805 80292	Moor Lane	Intakes	Field pattern just visible today but two moss rooms under one ownership
LSSM5	SJ 82961 80380	Moor Lane	Lindow Moss	Not shown as enclosed on tithe map but enclosed by 1882 map
LL1.9	SJ 82396 80363	Moor Lane	Lindow Moss	Not shown as enclosed on tithe map but enclosed by 1882 map
LL1.6	SJ 82263 80391	Moor Lane	Near Long Piece, Top Rough	
LL1.8	SJ 82336 80407	Moor Lane	Far Long Piece, Little Rough, New Intake	
LL2.9	SJ 82276 80070	Moor Lane	Big Intake	
LM27	SJ8295579830	Row of Trees	None	Land use listed as meadow although not named
LM26	SJ 82922 79773	Row of Trees	Intake	Three strips on tithe map
LM25	SJ8283879696	Row of Trees	Intake	Three square parcels on tithe
LM28	SJ8287179589	Row of Trees	Lindow Moss	
LM29	SJ8275379599	Row of Trees	Intake	Amalgamation of three parcels from tithe map into one ownership,

[65] Moss rooms have been included that do not fit within the broad groupings used throughout the report where they are of interest, hence the category of 'Newgate' here

[66] Includes surrounding areas such as Strawberry Lane

				although field boundaries remain mostly intact with some subdivision
LM30	SJ8278279484	Row of Trees	Intake	Building now on southern end but otherwise remarkably intact field pattern
LL2.9K	SJ 82336 79964	Row of Trees	Lindow Moss	Unenclosed on tithe maps. 1882 map shows southern parcel as a series of strips and intact mossland at the northern end
LMa1	SJ 82521 79689	Row of Trees	Intake, Top Piece	4 fields plus area of waste (Chorley) on tithe map. Amalgamated into two plus mossland ('waste') by 1882
LM31	SJ8270779486	Row of Trees	Brook Croft, Higher Acre, Moss, Intake	Four fields on tithe. Parcel names run south to north indicating established agricultural use extending to new enclosed parcel at the northern end of the modern ownership
LM32	SJ8269879394	Row of Trees	Waste (Chorley), House Meadow, Top piece (x2), Intake (x3)	Seven parcels on tithe. 'Top piece' twice might indicate two stages of enclosure with the 'top' of the parcel moving north.
LM33	SJ8265379349	Row of Trees	Road Piece, Lower Piece, Waste (Chorley)	
LM34	SJ8255579376	Row of Trees	Road piece, front piece, homestead, intake (x 2), top piece	Modern ownership does not include southern parcels on tithe map. Comparatively rare example of dwellings in the middle of a moss room section, possibly reflective of earlier enclosure or edge of peat mass (this is certainly the case today)
LM36	SJ8244679414	Row of Trees	Intake	
LM37	SJ8238879397	Row of Trees	Homestead, New Enclosure, Dear Bought, Vetch Field, Clover Field, Plantation	Vetch and Clover fields interesting as will be a comparatively early use of clover etc to fix nitrogen, in line with the agricultural improvement movement
LM38	SJ8242079232	Row of Trees	Waste (Chorley)	A good percentages of parcels in this section (Waste – Chorley) are enclosed by the 1882 map
LM39	SJ8240179185	Row of Trees	Waste (Chorley)	
LM40	SJ8237679159	Row of Trees	Waste (Chorley)	
LM41	SJ8227378993	Row of Trees	Waste (Chorley)	

LM42	SJ8227679292	Row of Trees	Waste (Chorley)	
LM43	SJ8223579232	Row of Trees	Waste (Chorley)	
LM44	SJ8219579215	Row of Trees	Waste (Chorley)	
LM45	SJ8216479198	Row of Trees	Waste (Chorley)	
LM46	SJ8212679198	Row of Trees	Waste (Chorley)	
LM47	SJ8208779218	Row of Trees	Waste (Chorley)	
LM48	SJ8204979191	Row of Trees	Waste (Chorley)	
LM49	SJ8207779109	Row of Trees	Waste (Chorley)	
LL2.13	SJ 82290 79440	Row of Trees	Waste (Chorley)	
LL2.14	SJ 82276 79363	Row of Trees	Waste (Chorley)	
LL2.20B	SJ 81995 79209	Row of Trees	Waste (Chorley)	
LL2.20	SJ 82022 79345	Row of Trees	Waste (Chorley)	
LL3.5	SJ 81907 78988	Row of Trees	Big Croft, Nats Croft (sic.)	
LL4.3	SJ 81642 79180	Row of Trees	Moss Room, Lindow Moss Room (x2), Lindow, Far Lindow, Moss Room and Road	Only northern extent of the modern ownership. One of only two modern parcels containing a tithe map parcel named 'moss room'
LM63	SJ8181079165	Row of Trees	Moss	Also covers some of the modern LL2.8 parcel
LL2.6	SJ 81890 79414	Row of Trees	Lindow, Moss (x2)	Strips at western boundary of modern parcel
LL4.5	SJ 81460 79224	Row of Trees	Pit Field, Moss Field	
LL6.2	SJ 80999 80393	Row of Trees	None	
LL4.10	SJ 81426 79458	Paddockhill	Long Croft, near Long Croft, Far Long Croft	
LL5.2	SJ 81520 79452	Paddockhill	Round Croft, Paddock Hill Croft, Moss Meadow	
LL5.7	SJ 81621 79450	Paddockhill	Moss Room, Near Cragg	Brows covers what is now the boundary between two modern

			Brow, Far Cragg Brow, Brows	plots, LL5.7 and LL5.8. One of only two modern parcels containing a tithe map parcel named 'moss room'
LL5.8	SJ 81646 79497	Paddockhill	Brows, Near Intake, Far Intake	Comparing tithe map to modern ownership becomes very difficult in this area with multiple narrow strips causing inaccuracies between the two map layers. Best guess has been applied but LL5.7-LL5.9 are to be interpreted loosely with regards the tithe parcel names
LL5.9	SJ 81652 79516	Paddockhill	Near Intake, Far Intake	
LL5.10	SJ 81662 79541	Paddockhill	Brows (x3)	Three parcels named as Brows, several strips over from the one mentioned above
LL5.11	SJ 81721 79541	Paddockhill	Near Brows, Cottage and Garden, Near Field, Far Field	
LL5.12	SJ 81765 79561	Paddockhill	Homestead, Top Meadow, Bottom Meadow, Rough	
LL5.13	SJ 81795 79576	Paddockhill	Lands, Far Land, Rough	
LL2.5	SJ 81853 79582	Paddockhill	Cottage and garden, Orchard, Top Meadow, Bottom Meadow, Lindow Piece, Near Long Croft, Middle Long Croft, Far Long Croft, Near Celix, Middle Celix, Celix	Amalgamation of two former crofts (?) into one modern ownership
LL2.4	SJ 81997 79578	Paddockhill	Long Meadow, Rough, Patch, Far Field, Bottom Beswick, Far Walley Meadow, Middle	Mass amalgamation into modern ownership from separate tithe parcels

			Walley Meadow, Far Park Room, Middle Park Room, Top Park Room	
LL5.19	SJ 81860 79689	Paddockhill	Near Field and Cottage, Top Beswick, Middle Field, Middle Beswick, Top Walley Meadow	
LL2.3	SJ 81921 79767	Paddockhill	Longs, Near Pingot, White Meadow, Top Kinsey Croft, Near Rough, Middle Kinsey Croft, Bottom Kinsey Croft, Craggs, Pingot	
LL2.2	SJ 82004 79798	Paddockhill	Long Croft, Middle Croft, Bottom Croft, Green Lane	

Appendix 3 – Stability of field patterns in an agricultural landscape

One of the defining features of the LCA from a heritage landscape perspective is the remarkable continuity of field patterns from the Tithe maps to the present day. This is not unique, but it is unusual. [67]

By comparing the LCA – comprised of a complex arrangement of smaller parcels predominately under pasture - with an arable landscape in north Nottinghamshire (as below) one can see an incomparable level of field consolidation. In particular, the consolidation of nine smaller fields into one large parcel in the centre of the image is notable, but nearly all parcels have been enlarged (with consequent boundary removal). The second example is from an area of the Dunham Massey estate, showing a former arable field on Henshall Lane, which at the time of the tithe mapping was comprised of fourteen separate parcels, all presumably with their own hedges. Today this is a former pumpkin field, subdivided only by ditches, but a single field for the purpose of management.[68]

Comparable lowland peat examples are relatively difficult to find – as many were historically drained for the purpose of arable production and as such had no history of turbary. The field boundaries are often demarcated by the historic ditches – something present to a lesser extent within the LCA than other comparable areas – even if for management purposes entire parcels are under one crop or rotation, regardless of these ditches.[69]

[67] There is a comparable example from Mossley, south of Congleton, see Map 40, above

[68] Although the aerial image suggests further subdivision these are further ditches and a footpath – not boundaries.

[69] The former Tarleton Moss near Preston is a good example – prime arable land that has changed little in terms of field pattern since the first edition OS, but significantly in terms of farming practices.

Land west of Treswell Wood, Nr. Retford, Notts, 1st ed. OS. Reproduced with the permission of the National Library of Scotland

Land west of Treswell Wood, Nr. Retford, Notts, 2001. ESRI World Imagery (Maxar (Vivid) imagery, 2021)

Henshall Lane, Dunham Massey, Tithe map for Warburton parish, c.1839, © copyright of Cheshire Archives and Local Studies, sourced from Cheshire Tithe Maps Online

Henshall Lane, Dunham Massey, ESRI World Imagery (Maxar (Vivid) imagery, 2021)

Appendix 4 – Paddockhill and Moss Lane

Following discussion and comments on this report from John Handley (Professor Emeritus University of Manchester and member of the Lindow Moss Landscape Partnership Steering Group) additional study has been conducted on the area between Paddockhill and Moss Lane. This is roughly enclosed on the east and west sides by Paddockhill running from the small area of common land at c. SJ 81325 79536 to the Plough and Flail pub and by Moss Lane from the junction with Paddockhill Lane to the bridge over Sugar Brook at c. SJ 81256 80125. It is bounded to the South by Paddockhill Lane, as shown in maps i and ii, below.

This area is also considered to be an area of interest for former moss rooms although fields are now much consolidated. This can be seen on the 1882 map (map iii), showing rectilinear fields running broadly east-west in the hollow visible on the modern LiDAR (map iv), with the larger fields to the east comprising the higher ground on the boulder clay ridge to the southeast of the Plough and Flail. Comparison with the modern aerial (Map i) and OS (Map ii) images below show the extent of the consolidation, with most strips combined with neighbours to create double or triple width fields compared to the original layout.

A table analysing the tithe map field names has been included below. Parcels are considered in the same way as in Appendix 2, above, and are listed in rough order from the southwest corner (junction of Paddockhill and Moss Lane) running west to east then progressing north, strip by strip, to Sugar Brook, where the field pattern changes on early mapping to larger, squarer fields and the boundary of the LCA turns to follow the Sugar Brook. Again, as in Appendix 2, modern parcel names have been used to distinguish areas in line with LMLP mapping of ownership carried out in 2024.

It can be seen that there are a reasonable number of field parcel names with what we might consider to be 'peatland names' (in bold below - 14 of 70 field parcels, increasing to 20 of 70 if one includes the italicised terms 'rough' and 'turf' alongside 'moss'), decreasingly slightly to the north of the topographical depression and, as one might expect, concentrated in the centre of this depression. There has been a slight loss of coherence in the interpretation of the historic field boundaries due to consolidation, as mentioned above but the broad pattern of outer boundaries is still coherent to an extent.

Peat survey work in this area shows a concentration of remaining peat in a range of conditions from highly desiccated, hydrophobic, degraded peat to fairly intact, wet, sphagnum peat across parcels LM67, LM68 and LM69. It is likely that if permission to survey were granted on other surrounding areas these would also show peat deposits due to the topography of the area. It is unclear why areas of almost intact sphagnum peat remain in these areas, given their history of extraction (as it is clear that parcels LM67-69 do have enough characteristics to be viewed as examples of former moss rooms). It is speculated that this smaller peat lens, bounded on both sides by clay and sand ridges,[70] was less valuable as a resource for fuel and so was not extracted to the same extent as other areas given the amount of peat available in other nearby areas. It is also possible that surveyors discovered one small area of intact peat amongst wider areas of the more heavily degraded peats seen in other former moss rooms. This area also does not have as clear a direction of extraction as others, given the smaller, contained presumed

[70] The 2024 peat survey clearly showed these two mineral soil areas, although comparatively little surveying was conducted to the west of Moss Lane, as it lies outside of the LCA. Also see map vii below, showing an area to the west of Moss Lane marked 'Sand Pit' on the 1838 Mobberley Tithe map

extent of peat soils here, as opposed to other areas situated on the fringes of - and working towards the middle of – the larger peat mass centred on Saltersley Moss. This lack of direction of extraction may have led to more haphazard incidents of extraction, rather than the systematic direction of extraction seen in other former moss rooms, where most show mineral soils on the 'outside', grading to heavily degraded peats towards the 'centre'.

It is also perhaps worth stating that modern modelled peat maps, such as the NE peaty soils layer and the newer England peat map, do not show this area of peat, although BGS maps do show alluvium in this area.[71] Results from peat surveying carried out by the LMLP in 2024 has been passed to Natural England and it is hoped that future models will use this data.

Parcel ID	**Grid Reference**	**Approximate Area**	**Tithe map parcel name**	**Notes**
LM64	SJ 80864 79674	Paddockhill/ Moss Lane	Paulden Meadow	
LM65	SJ 80982 79586	Paddockhill/ Moss Lane	Bottom Croft (x2)	Bottom Croft noted as arable
LM66	SJ 81113 79655	Paddockhill/ Moss Lane	Top Croft (x2), Bottom Croft (x2), Birch Croft, *Rough*, Sand Hole Croft	Sand Hole Croft suggests sand extraction and mineral soils
LM68	SJ 81048 79734	Paddockhill/ Moss Lane	Near Meadow, **Moss Croft**, *Turf Croft*	Turf Croft crosses a modern landownership boundary so is noted twice.
LM67	SJ 81248 79679	Paddockhill/ Moss Lane	Turf Croft, High Croft	
LM69	SJ 81174 79762	Paddockhill/ Moss Lane	Near Meadow (x2), Far Meadow **Moss Piece**, **Moss**, Top Croft, Far Meadow, **Moss Croft**, *Top Rough*, Near Field, Far Field, **Moss Room (x2)**	
LL5.24	SJ 81189 79862	Paddockhill/ Moss Lane	Lower Field, Top Field (x2), Fitch Piece, **Middle Moss**, **Top Moss**, *Rough (x2)*, *Top Rough*, Croft,	Note abundance of 'moss' placenames

[71] See maps viii-x

			Moss Room (x3), **Near Moss Room**, Near Field, Middle Field,	
LL5.34	SJ 81473 79667	Paddockhill/ Moss Lane	**Far Moss Meadow**, **Near Moss Meadow**, Near Knoll, Half Acre	Largely corresponds to a modern area of higher ground ('Knoll') and larger, non-rectilinear fields on the tithe mapping, with the exception of the two 'moss'-named parcels. Fields patterns are little changed today from tithe map
LL5.35	SJ 81570 79670	Paddockhill/ Moss Lane	Lee Field	Corresponds to a modern area of higher ground and larger, non-rectilinear fields on the tithe mapping. Lee Field crosses modern ownership so is noted twice
LL5.36	SJ 81585 79780	Paddockhill/ Moss Lane	Lee Field, Far Knoll	Corresponds to a modern area of higher ground and larger, non-rectilinear fields on the tithe mapping
LL5.23B	SJ 81251 79938	Paddockhill/ Moss Lane	Near Cragg, Middle Cragg, Higher Cragg, Patch, First Meadow, Second Field, Third Field, Fourth Field, Pasture Field, Low Meadow, Kench Hall	Predominately arable
LL5.21	SJ 81649 79807	Paddockhill/ Moss Lane	Long Croft	
LM70	SJ 81678 79866	Paddockhill/ Moss Lane	Far Field	Modern Plough and Flail
LL5.25	SJ 81321 79977	Paddockhill/ Moss Lane	Near Field, Middle Field, Top Field	

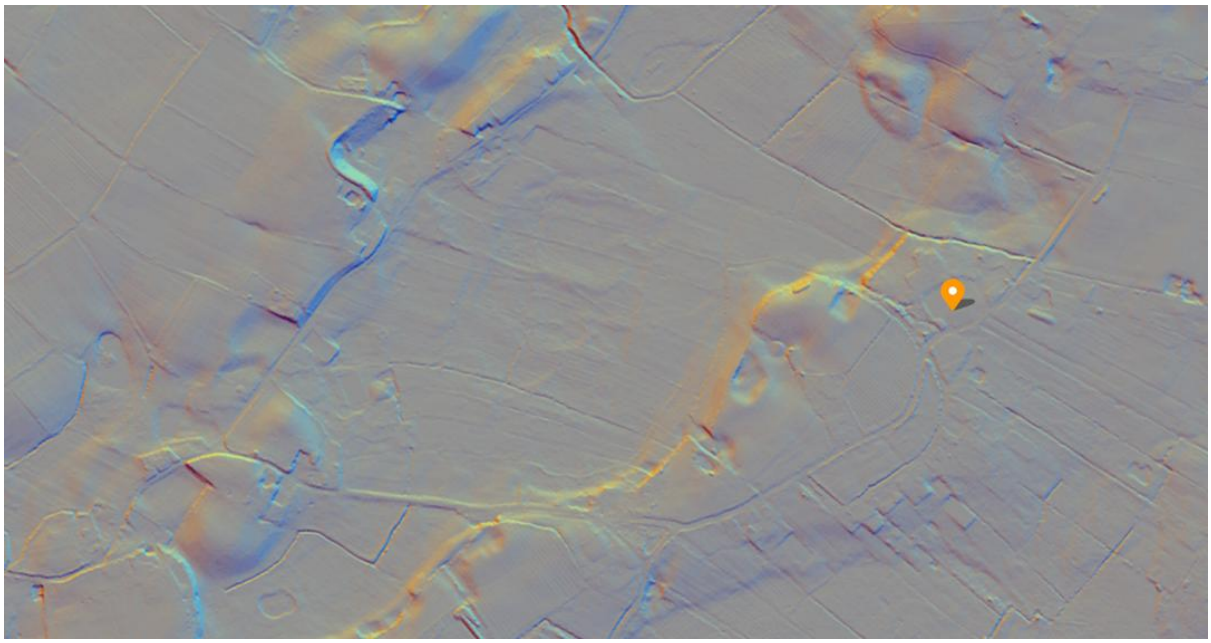
LM71	SJ 81391 80019	Paddockhill/ Moss Lane	Near Hall Room, Far Hall Room, Nearest Hall Room, Middle Hall Room, Further Hall Room	First two are adjacent to Sugar Brook. Interestingly, although all contain 'room' in their names, none accord to the shape expected of a *moss* room and are instead wider, squarer fields that, bar some minor consolidation, are still similar in shape today to the tithe mapping

Maps

Map i: Modern aerial image, ESRI World Imagery (Maxar (Vivid) imagery, 2021)

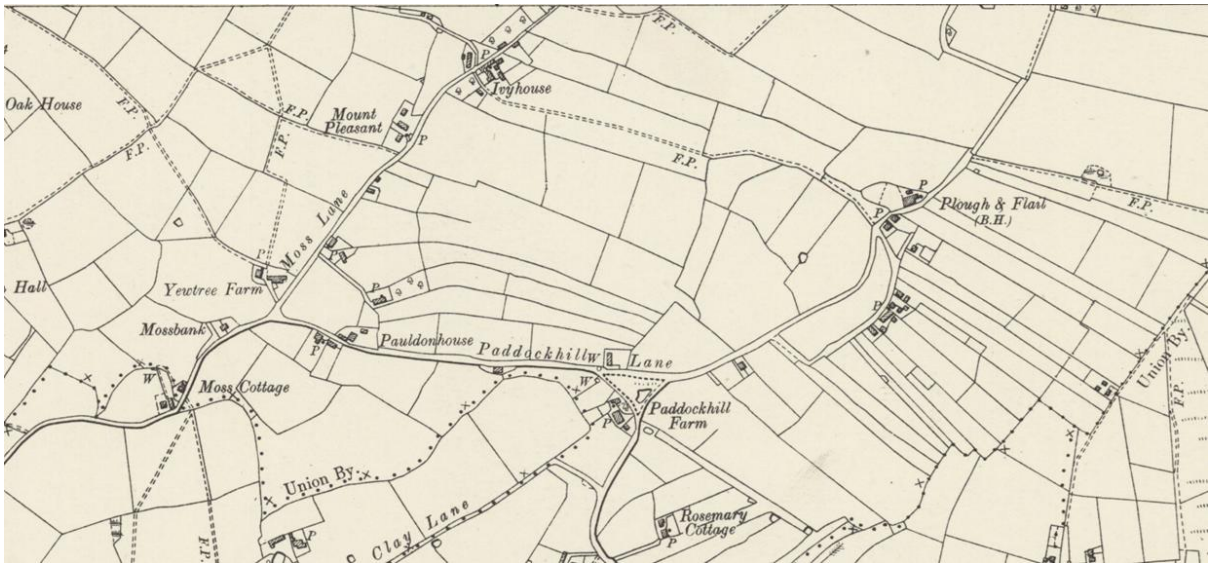
Map ii: Modern OS data © Crown copyright and database rights 2024 OS AC0000818457

Map iii: Excerpt. OS Six Inch Eng Wal 1842-1952. Cheshire Sheet XXVII. Pub 1882



Map iv: LiDAR. The Plough and Flail pub is shown as an orange pin. LiDAR DTM 50cm-1m Eng Scot Wal (plus Relief Visualisation ToolBox colourisation), via NLS maps, see Using LiDAR layers for landscape research - Map images - National Library of Scotland)

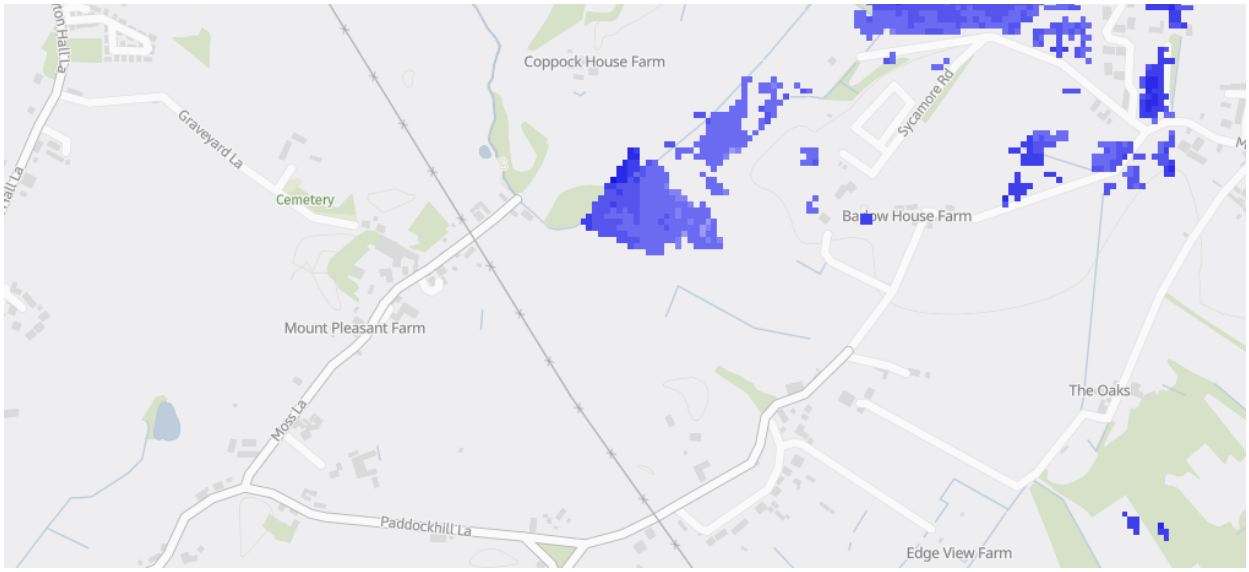
Map v: Excerpt NE. OS 25-inch Eng Wal 1841-1952. Cheshire XXVII.12. Pub. 1898



Map vi: Excerpt. OS Six Inch Eng Wal 1842-1952. Cheshire Sheet XXVII. SE. Pub 1899

Map vii: Tithe Map. Excerpt. The Plough and Flail is again marked with an orange pin. The black box encloses an area marked ‘Sand pit’ to the west of what is now Moss Lane. © Cheshire Archives and Local Studies

Map viii: BGS Superficial Geology. Blue is Devensian Till, Yellow is Alluvium, Brown is Peat and Pink is Devensian Glaciofluvial deposits (sands and gravels).



Map ix: Natural England: England Peat Map – Peaty Soil extent and depth (2024)

Map x: Natural England: Peaty Soils Map (2008)

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