

<b>Topic Schedule</b>	<b>04. Natural Places and Soils</b>
<b>Information required by the Act and NPF4 regarding the issue addressed in this section</b>	<p><b>Town and Country Planning (Scotland) (Act) 1997, as amended:</b></p> <ul style="list-style-type: none"> <li>• section 15(5)(a) ‘the principal physical, cultural, economic, social, built heritage and environmental characteristics of the district’</li> </ul> <p>Other statutory requirements relating to this Topic Schedule:</p> <ul style="list-style-type: none"> <li>• SEA (Environmental Report)</li> <li>• Habitats Regulation Appraisal (HRA)</li> <li>• Forestry and Woodland Strategy</li> </ul> <p><b>National Planning Framework 4</b> (adopted 13 February 2023)</p> <ul style="list-style-type: none"> <li>• Policy 4 – Natural Places - LDPs will identify and protect locally, regionally, nationally and internationally important natural assets, on land and along coasts. The spatial strategy should safeguard them and take into account the objectives and level of their protected status in allocating land for development. Spatial strategies should also better connect nature rich areas by establishing and growing nature networks to help protect and restore the biodiversity, ecosystems and natural processes in their area.</li> <li>• Policy 5 – Soils - LDPs should protect locally, regionally, nationally and internationally valued soils, including land of lesser quality that is culturally or locally important for primary use.</li> </ul> <p><b>These two natural environment topics – natural places and soils - were brought together because there are overlaps regarding the emphasis on protection and designation. Also included are landscape and geodiversity themes on the same basis.</b></p> <p><b>This Topic Schedule aims not to repeat the content of other topics covered by the LDP2 Evidence Report.</b> Other Topic Schedules which should be read alongside this Topic Schedule on Natural Places and Soils include:</p> <ul style="list-style-type: none"> <li>• 01 - Climate Change</li> <li>• 02 - Biodiversity and West Lothian’s Nature Network</li> <li>• 03 - The Water Environment and Flood Risk</li> <li>• 05 - Forestry, Woodland and Trees</li> <li>• 06 - Countryside Belts</li> </ul>

	<ul style="list-style-type: none"> <li>• 08 - Health, Wellbeing and Inequalities</li> <li>• 20 - Minerals</li> <li>• 26 - Blue and Green Infrastructure and Open Space</li> </ul>
<b>Links to Evidence referenced in this topic schedule</b>	<p>WLC 047 <a href="#">Local Nature Conservation Sites dataset</a></p> <p>WLC 053 <a href="#">James Hutton Institute Soil data and maps</a></p> <p>WLC 071 <a href="#">European Habitats Directive</a></p> <p>WLC 077 <a href="#">Local Landscape Areas</a></p> <p>WLC 078 <a href="#">Lothians Landscape Character Assessment</a></p> <p>WLC 084 <a href="#">Scottish Landscape Character Types Map and Descriptions</a></p> <p>WLC 085 <a href="#">SiteLink Register</a></p> <p>WLC 100 Ramsar <a href="#">Convention on Wetlands of International Importance: Ramsar sites</a></p> <p>WLC 104 <a href="#">National scale land capability for agriculture</a></p> <p>WLC 148 <a href="#">Nature Conservation (Scotland) Act 2004: Biodiversity Duty on all responsible authorities</a></p> <p>WLC 169 <a href="#">Scotland's Soils</a></p> <p>WLC 204 <a href="#">Sustainable Land Management</a></p> <p>WLC 319 <a href="#">Landscape Capacity Study for Wind Energy Development</a></p> <p>WLC 332 <a href="#">Local Landscape Designation Review</a></p> <p>WLC 341 <a href="#">Scottish Bare Peat Viewer</a></p> <p>WLC 349 <a href="#">Planning Guidance - Planning for Nature : Development Management and Wildlife</a></p> <p>WLC 354 <a href="#">Planning Guidance - Soil Management &amp; After Use of Soils on Development Sites</a></p> <p>WLC 382 <a href="#">Supplementary Guidance - Wind Energy Development</a></p> <p>WLC 394 <a href="#">West Lothian Geodiversity report</a></p> <p>WLC 395 <a href="#">West Lothian Natural Capital Assessment</a></p> <p>WLC 397 <a href="#">West Lothian phase 1 habitat survey 1993 – GIS layer</a></p> <p>WLC 404 <a href="#">West Lothian Soil Sustainability Report</a></p> <p>WLC 416 <a href="#">The Management Plan for Blawhorn Moss NNR 2017-2027</a></p> <p>WLCXX West Lothian Landscape and Countryside Belt Review Method Statements</p>
<h2>Summary of Evidence</h2>	
<p><b>Purpose, scope and structure of this Topic Schedule</b></p> <p>This Topic Schedule focuses on natural places and soils in West Lothian. This Topic Schedule and its evidence are set out in the following sections:</p> <ol style="list-style-type: none"> <li>1 Natural Places in West Lothian</li> <li>2 Countryside and landscape designations in West Lothian</li> <li>3 Soils in West Lothian</li> <li>4 Soil Carbon Sequestration</li> </ol>	

## Part 1 – Natural Places in West Lothian

- 1.1 National Planning Framework 4 (2023) policy 4 requires LDPs to identify and protect locally, regionally, nationally and internationally important natural assets, on land and along coasts. The spatial strategy should safeguard them and take into account the objectives and level of their protected status in allocating land for development.
- 1.2 There are a number of designated sites within West Lothian that carry statutory protection at the European, National (UK and Scottish) and West Lothian levels (**WLC 077**). These sites are referred to as international, national and local sites, and set out below. The Habitats Regulations implement the Habitats Directive in Scotland and provide protection to European protected species and European sites (**WLC 071**). Protected areas account for 16% of the land coverage of West Lothian. West Lothian Council landholdings comprise 51% protected land.
- 1.3 Internationally designated sites have protection under European law and are commonly known as European sites. They comprise:
  - Ramsar Sites – classified under the Convention on Wetlands of International Importance (**WLC 100**). There is one Ramsar Site within West Lothian, part of the Firth of Forth RAMSAR;
  - Special Areas of Conservation (SAC) – designated for their habitats and species under the European Commission’s Habitats Directive (92/43/EEC). In West Lothian there is Blawhorn Moss SAC north of Blackridge and Craigengar Moss SAC in the southwest Pentlands; and,
  - Special Protection Areas (SPA) – designated for their birds under the EC Wild Birds Directive (2009/147/EC) - part of the Firth of Forth SPA is in West Lothian.
- 1.4 Nationally designated sites in West Lothian include Sites of Special Scientific Interest (SSSIs) which are notified for the special interest of their habitats, flora, fauna, geology or geomorphology. SSSIs are designated by NatureScot under the Nature Conservation (Scotland) Act 2004 (**WLC 148**) in order to protect the special interest of the site from damage or deterioration. It is an offence for anyone to intentionally or recklessly damage the protected natural features of an SSSI.

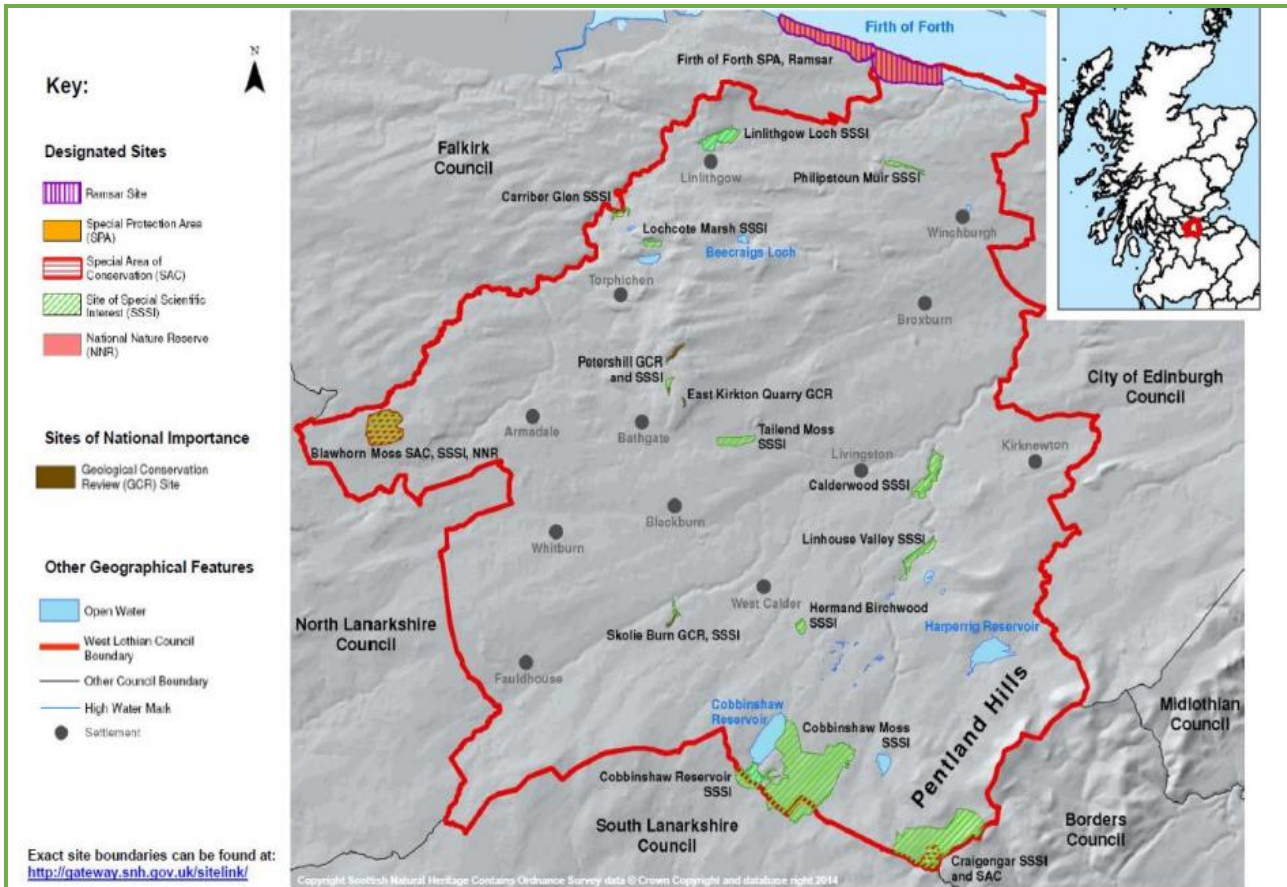


Figure 5. International and national natural heritage designations in West Lothian. Source: WLC’s Planning for Nature Guidance (**WLC 349**), 2020.

- 1.5 In addition, for West Lothian, there is one National Nature Reserve (NNR) (Blawhorn Moss) which has habitats and species that are internationally important. The management plan for the nature reserve (**WLC 416**) indicates that: ‘Blawhorn Moss is in superb condition as an active lowland raised bog’.
- 1.6 There are 16 SSSIs in West Lothian as set out below with a range of special features including 3 further bogs, 3 water habitats, and 4 geological areas, notably limestones. There are four woodland areas of which two feature ‘upland mixed ash’ and are at risk to Chalara Ash Dieback disease, now prevalent in West Lothian. As requested by NatureScot, the ‘latest assessed condition’ has been found for all the SSSIs in West Lothian under SiteLink (**WLC 085**) which reveals that ‘unfavourable’ is the most common condition with a few cases of Unfavourable recovering and Favourable maintained.

Table 14. Location, type, special features and condition of SSSIs in West Lothian.

Name	Location	Type - Special Features - Latest Assessed Condition
Blawhorn Moss	Blackridge	Biological - Raised bog Wetlands - Unfavourable Recovering, 21 Aug 2008

Calderwood	Mid Calder	Biological - Upland Oak woodland and valley fen Upland oak woodland - Favourable Maintained, 29 May 2014 Valley fen - Unfavourable No change, 7 Aug 2009
Carribber Glen	nr. Linlithgow	Biological - Upland mixed Ash woodland Unfavourable No change, 19 May 2014
Cobbinshaw Moss	nr. Harburn	Biological - Intermediate bog (blanket) Unfavourable No change, 3 Nov 2022
Cobbinshaw Reservoir	nr. Harburn	Biological - Open water transition fen Unfavourable Recovering, 12 Sept 2023
Craigengar	Pentland Hills	Biological - Blanket bog; Subalpine dry heath; Spring head, rill and flush; and rare marsh saxifrage Blanket bog - Favourable Recovered, 30 Mar 2023 Spring-head, rill and flush - Unfavourable Declining, 11 Sept 2013 Marsh saxifrage - Unfavourable No change, 24 Oct 2006 Subalpine dry heather - Unfavourable Recovering, 30 Mar 2023
East Kirkton Quarry	Bathgate	Geological - Geology (limestones) Favourable Maintained, 27 Nov 2007
Firth of Forth	Blackness/ Hopetoun coast	Mixed - Geology / landscape / habitats / species (esp. birds); in this location species rich coastal and semi-improved grassland Unfavourable to Favourable but not clear which assessment relates to West Lothian part
Hermand Birchwood	West Calder	Biological - Upland birch woodland Unfavourable Declining, 19 May 2000 (measures in place to improve to Favourable status)
Linhouse Valley	Murieston	Biological - Habitat patchwork: lowland acid and neutral grasslands, species rich valley fen and upland mixed ash woodland Lowland grassland - Unfavourable Declining, 15 Jun 2012 Upland mixed ash woodland - Favourable Recovered, 1 Jun 2016 Lowland neutral grassland - Unfavourable Declining, 4 Aug 2016 Valley fen - Favourable Maintained, 15 Sept 2004

Linlithgow Loch	Linlithgow	Biological - Largest natural freshwater loch in the Lothian area and lowland eutrophic loch Unfavourable No change, 5 Sept 2013
Lochcote Marsh	Torphichen	Biological - Basin fen and only known West Lothian site for rare mud snail Unfavourable Recovering, 15 Jun 2022
Petershill	Bathgate	Mixed - Limestones, Lowland neutral grassland and Lowland calcareous grassland Earth Sciences - Partially destroyed, 17 Jun 2021 Lowland grassland - Unfavourable Recovering, 16 Jun 2021 Lowland calcareous grassland - Favourable Recovered, 17 Jun 2021
Philpstoun Muir	Philpstoun	Biological - Upland mixed ash woodland Unfavourable Declining, 24 Jul 2012
Skolie Burn	Loganlea	Mixed - Geology (limestones) and Lowland neutral grassland – site denotification of small area at Burnside Terrace in 2019 Favourable Maintained, 26 Mar 2008
Tailend Moss	between Livingston/ Bathgate	Biological - Raised bog Latest Assessed Condition: Unfavourable No change, 26 Sept 2013 (measures in place to improve to Favourable)

1.7 There are three types of sites of local significance in West Lothian: Local Nature Reserves, Local Geodiversity Sites and Local Biodiversity Sites. These are non-statutory designations and can be viewed in the Local Nature Conservations Sites dataset (**WLC 047**).

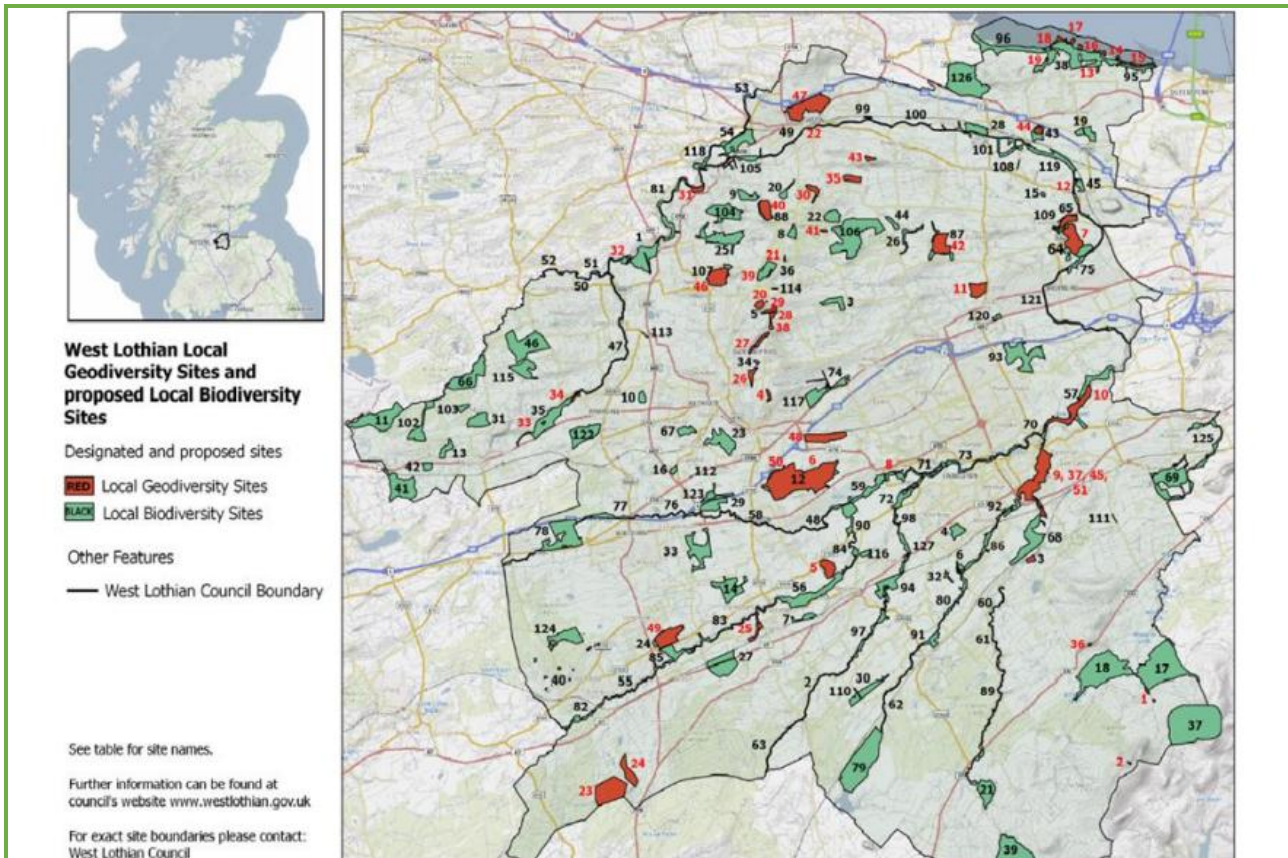


Figure 6. Local natural heritage designations in West Lothian. Source: WLC's Planning for Nature Guidance (**WLC 349**), 2020.

- 1.8 Local Nature Reserves are protected from development through LDP1. There are two Local Nature Reserves – Easter Inch Moss and Harperrig Reservoir – located in West Lothian.
- 1.9 Easter Inch Moss is an area of lowland peat bog plus former oil shale bing (Seafield Law) that was designated as Local Nature Reserve (LNR) in 2007. The reserve is located between Blackburn and Seafield and, as well as being a valuable green space for local residents the moss is also home to over 140 different plant species, with 11 being recognised as rare in West Lothian. Like many peat bogs in the United Kingdom, Easter Inch Moss has been damaged by poor management over the years. Restoration has begun through NatureScot's Peatland Restoration Fund.
- 1.10 Harperrig Reservoir lies to the north of the Pentland Hills within the West Lothian boundary and within the boundary of the Pentland Hills Regional Park. It is owned by City of Edinburgh Council and managed across the boundary as part of the Water of Leith flood prevention scheme.
- 1.11 Local Geodiversity Sites (LGS) are sites with geological features of great value considered worthy of interpretation and conservation and those with features of some value that may be worthy of interpretation and conservation. Local Geodiversity Sites are split into two categories based on a geodiversity review of West Lothian carried out by the British

Geological Survey. There are 51 Geodiversity Sites in West Lothian. Further information about all aspects of West Lothian's geodiversity can be found in the West Lothian Geodiversity report, 2006 **(WLC 394)**, commissioned from the British Geological Survey.

- 1.12 Local Biodiversity Sites (LBS) aim to ensure the conservation, maintenance and enhancement of species and habitats of fundamental nature conservation value. They are not legally protected, but local planning policies may be used to protect them from inappropriate development. There are 121 LBSs throughout West Lothian. LBS were designated by the Local Biodiversity Site group using strict criteria, including habitat, species present, abundance, size, and surrounding landscape.
- 1.13 The LBS group is responsible for managing the LBS system, overseeing selection criteria, selection of sites, review and monitoring of sites and development of projects to ensure the conservation of sites. The West Lothian group currently includes representatives from West Lothian Council (WLC), Nature Scot, The Wildlife Information Centre (TWIC), Butterfly Conservation, Royal Society for the Protection of Birds (RSPB), Scottish Wildlife Trust (SWT) and some independent experts.
- 1.14 Information on Biodiversity and the proposed West Lothian Nature Network is set out in Topic Schedule 2: Biodiversity and West Lothian's Nature Network.

## **Part 2 - Countryside and landscape designations in West Lothian**

- 2.1 West Lothian has no National Scenic Areas; however, landscape quality is nonetheless important to the setting of settlements, and to the area's image and identity of local communities.
- 2.2 Local landscape designations were reviewed in advance of LDP1 and are shown as Special Landscape Areas (SLAs) on the West Lothian LDP1 Proposals Map and are protected through Policy ENV 1: Landscape Character and Special Landscape Areas.



Figure 8. Map showing the countryside of West Lothian in green.

- 2.3 Landscape character assessments covering all of Scotland were carried out in the 1990s by Scottish Natural Heritage. West Lothian was included in the Lothians Landscape Character Assessment, 1998 (**WLC 078**).
- 2.4 The council’s landscape character assessment was updated in 2011, and the boundaries supersede those in the 1998 assessment but the original descriptions and supporting information still provide relevant context.
- 2.5 The council undertook a Local Landscape Designation Review (**WLC 332**) in 2013 which identified ‘Candidate’ Special Landscape Areas (SLAs). Seven SLAs were adopted through LDP1:
- Airngarth Hill SLA;
  - Almond and Linhouse Valleys SLA;
  - Avon Valley SLA;

- Bathgate Hills SLA;
- Blackridge Heights SLA;
- Forth Coast SLA; and
- Pentland Hills.

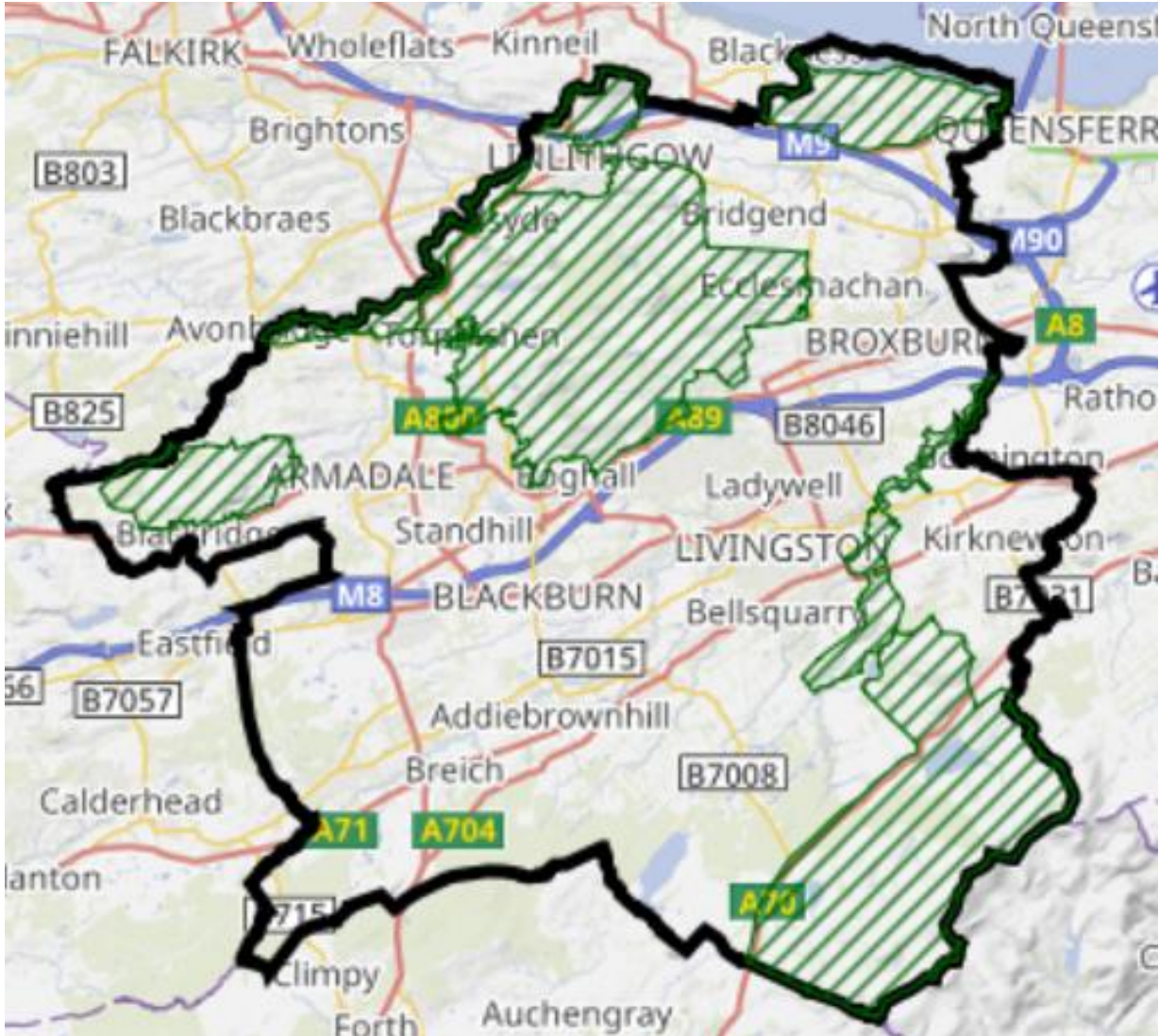


Figure 9. Map of special landscape areas in West Lothian.

- 2.6 The existing Special Landscape Areas were adopted in 2018 under WLLDP1 after a full ‘all landscape’ approach in consultation, as then was, Scottish Natural Heritage (SNH) as part of the review programme in the 2010s based on the SNH and former Historic Scotland document ‘Guidance on Local Landscape Designations’ of 2006.
- 2.7 Since then, NatureScot’s Scottish Landscape Character Types Map and Descriptions (**WLC 084**) is used in practice by the renewable energy industry and for other technical reports. This Council was consulted about the typologies for West Lothian at the time the national landscape character assessment was undertaken.

- 2.8 In January 2026 the council commissioned a **West Lothian Landscape and Countryside Belt Review (WLC XXX)**. This study will report from March 2026 to May 2026 to inform the proposed plan.
- 2.9 The West Lothian Landscape and Countryside Belt Review includes an updated Landscape Character Assessment for West Lothian and a review of West Lothian’s Local Landscape Designations which also include an assessment of whether the boundaries remain appropriate given development since 2014.
- 2.10 The study also includes a review of West Lothian Countryside Belts and potential for Green Belt designation including their spatial form, function, integrity, compliance with NPF4 Policy 8 and other relevant national guidance, their strengths, weaknesses and other considerations relevant to potential Green Belt designation such as the Development Planning Guidance. Countryside Belts are spatial designations in LDP1 and are critical planning tools somewhat like statutory greenbelts around Scotland’s cities, for the purposes of controlling urban spread into the countryside. Protecting the setting of settlements is another important purpose of countryside belts. Evidence on Countryside Belts and green belt policy are set out in Topic Schedule 6.
- 2.11 The West Lothian Landscape and Countryside Belt Review Method Statements (WLCXX) for the three studies are published for engagement.
- 2.12 The council has also commissioned two additional Landscape Sensitivity Studies for strategic-scale renewable energy and for woodland expansion (two separate studies) which will support future Planning Guidance on Renewable Energy and the Forestry and Woodland Strategy.
- 2.13 The aim of this work is to provide a robust and consistent landscape baseline across the area to underpin crucial decisions regarding land use, land management and development, as part of the preparation of the proposed plan. The studies will report by May 2026 to inform the proposed plan.
- 2.14 Scottish Water (SW) designates its abstraction sites as Drinking Water Protected Areas (DWPA) under Article 7 of the Water Framework Directive. Further information on DWPA Maps and potential land use changes therein requires consultation with SW’s Sustainable Land Management (**WLC 204**) team. This topic is fully covered under Topic Schedule 3: The Water Environment and Flood Risk.
- 2.15 NPF4 is broadly supportive of wind energy developments, subject to assessment against specific criteria relating to project design and mitigation.
- 2.16 Currently, local guidance on wind energy developments, including landscape capacity guidance, is provided in the council’s Statutory guidance on Wind Energy Development, adopted June 2021, (**WLC 382**), a document consolidating and refreshing earlier non-statutory guidance.

2.17 Based solely on landscape and visual assessment, there are eight potentially acceptable locations for wind energy identified in the Landscape Capacity Study for Wind Energy Development in West Lothian (**WLC 319**). These potential sites are set out below. Of these the most likely potentially deliverable locations, allowing for changes due to build out are those highlighted in italic text:

- East Mains Industrial Estate, Broxburn
- Houstoun Industrial Estate, Livingston
- Livingston/ M8 Corridor
- Junction 4/M8 Corridor
- *Almond Valley, West Calder*
- *Pates Hill Extension, Breich*
- *Tormywheel (or Woodmuir Plantation if Tormywheel not constructed), Breich*
- *Fauldhouse Hills, Fauldhouse*

2.18 There remains some landscape capacity for wind energy development, although viability will largely depend on emerging technology, grid connection and storage, and future subsidy and funding regimes. There has also been some interest in relation to extension to existing wind energy developments, as well as repowering existing schemes with larger turbines.

2.19 The council has commissioned an additional Landscape Sensitivity Studies for strategic-scale renewable energy which will support future Planning Guidance on Renewable Energy and the Forestry and Woodland Strategy.

### Part 3 – Soils in West Lothian

3.1 West Lothian’s soil assets, including peatland and carbon-rich soils can play a critical role in helping to achieve the net zero emissions target by 2045, contribute toward climate adaptation through the control of flooding and increased resilience to drought, and are a source of food and other crops, supporting West Lothian’s rural economy.

3.2 NPF4 policy 5 (a) states that development proposals will only be supported if they are designed and constructed in accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land; in a manner that protects soil from damage including from compaction and erosion, and that minimises soil sealing.

3.3 Guidance on this is set out in West Lothian Council’s planning guidance on Soil Management & After Use of Soils on Development Sites (**WLC 354**). The guidance aims to:

- ensure that restoration of site landforms are not too steep and provide appropriate drainage for the placement of soils suitable for a range of land uses, including landscaping, habitat creation and open spaces;
- conserve prime quality soils, as an irreplaceable natural resource where greenfield sites are being developed; and

- minimise problems, like flooding, for development sites and adjacent land uses, where soil has been poorly managed during construction.

3.4 NPF4 policy 5 (b) states that development proposals on prime agricultural land, or land of lesser quality that is culturally or locally important for primary use, or on peatland, carbon rich soils and priority peatland, or priority peatland habitat, as identified by the LDP, will only be supported in certain circumstances. These policy exceptions include justifiable and reasonable essential infrastructure, rural business development/ facilities and renewable energy. There is also a requirement for LDPs to define the term '*land of lesser quality that is culturally or locally important for primary use*' which will be considered at proposed plan stage drawing on wider experience/ examples and the evidence base.

3.5 NPF4 Annex F Glossary of definitions – offers guidance on this term in policy 5 and its use when assessing maps/ land of lower Class 3.2 and later at proposed plan stage:

*Prime agricultural land & land of lesser quality that is culturally or locally important for primary use - Prime agricultural land is that identified as being Class 1, 2 or 3.1 in the land capability classification for agriculture developed by Macaulay Land Use Research Institute (now the James Hutton Institute – **WLC 053**).*

*However, for land of lesser quality that is culturally or locally important for primary use (i.e. for example food production, flood management, water catchment management and carbon storage), this value should be recognised in decision-making.*

3.6 Scotland's Soils (**WLC 169**) holds soils evidence and datasets, including the National Soil Map of Scotland. Datasets available include:

- [1:250,000 National Soil Map](#)
- [1:25,000 Soil Map \(partial cover\)](#)
- [Soil Thematic Maps including](#) partial risk maps for topsoil and from water i.e. compactions, leaching, runoff and erosion which are useful in the consideration of the impact development on soils and water systems.
- [National Soils Inventory](#), point data on parent material, lead and zinc concentrations in topsoil.

3.7 The West Lothian Soil Sustainability Report (**WLC 404**) indicates that the majority of soils in West Lothian have a soil texture ranging from clay to sandy clay loam. This high clay and glacial till soils content often results in poor drainage conditions.

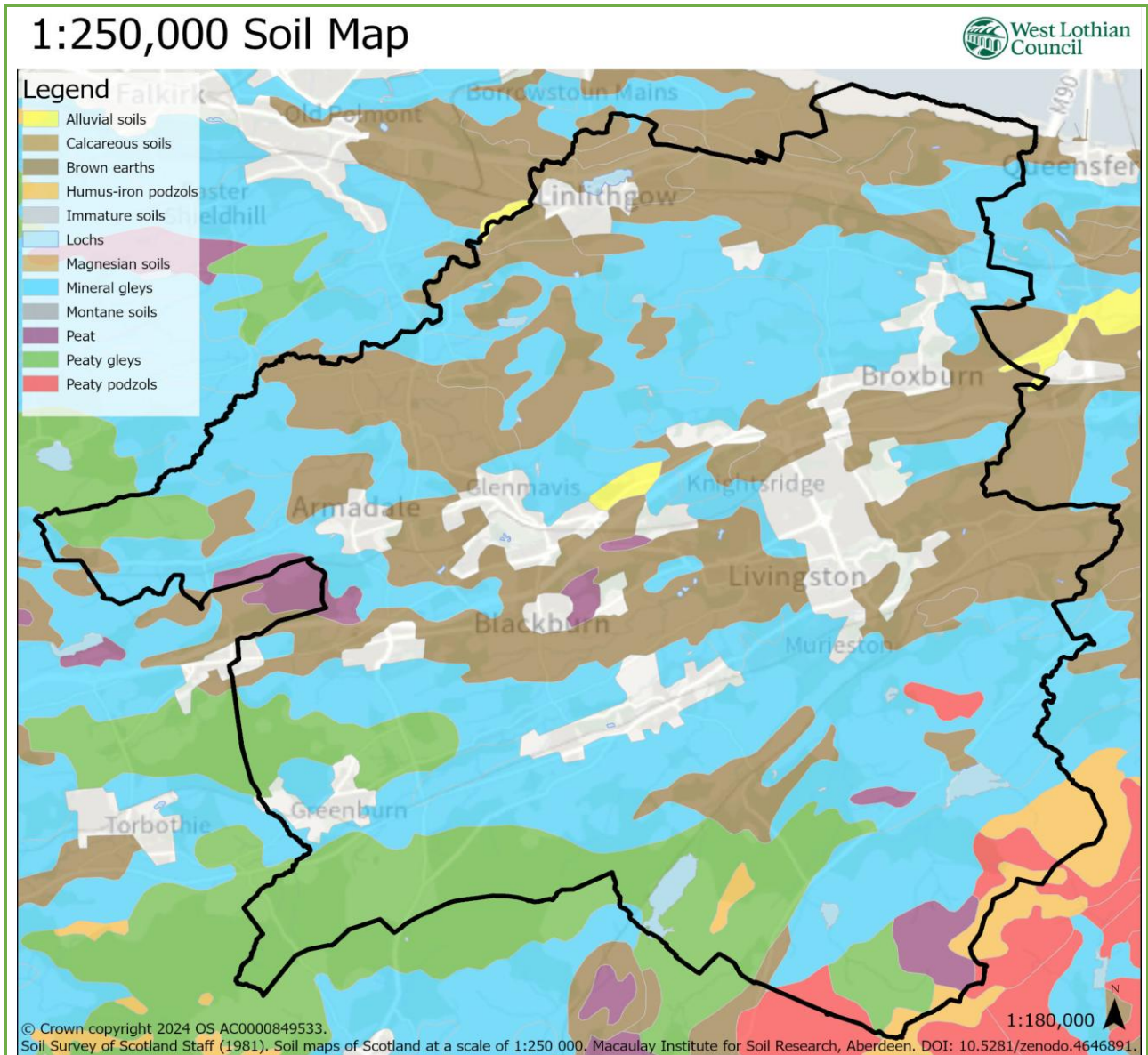


Figure 10. Soil map of West Lothian.

3.8 The Scotland’s Soil’s National-Scale Land Capability for Agriculture mapping (**WLC 104**) provides information on the types of crops that may be grown in different areas dependent on environmental and soil characteristics. Prime land is defined by the following classes:

- Class 1 - Land capable of producing a very wide range of crops
- Class 2 - Land capable of producing a wide range of crops
- Class 3.1 - Land capable of producing consistently high yields of a narrow range of crops and/ or moderate yields of a wider range; short grass leys are common

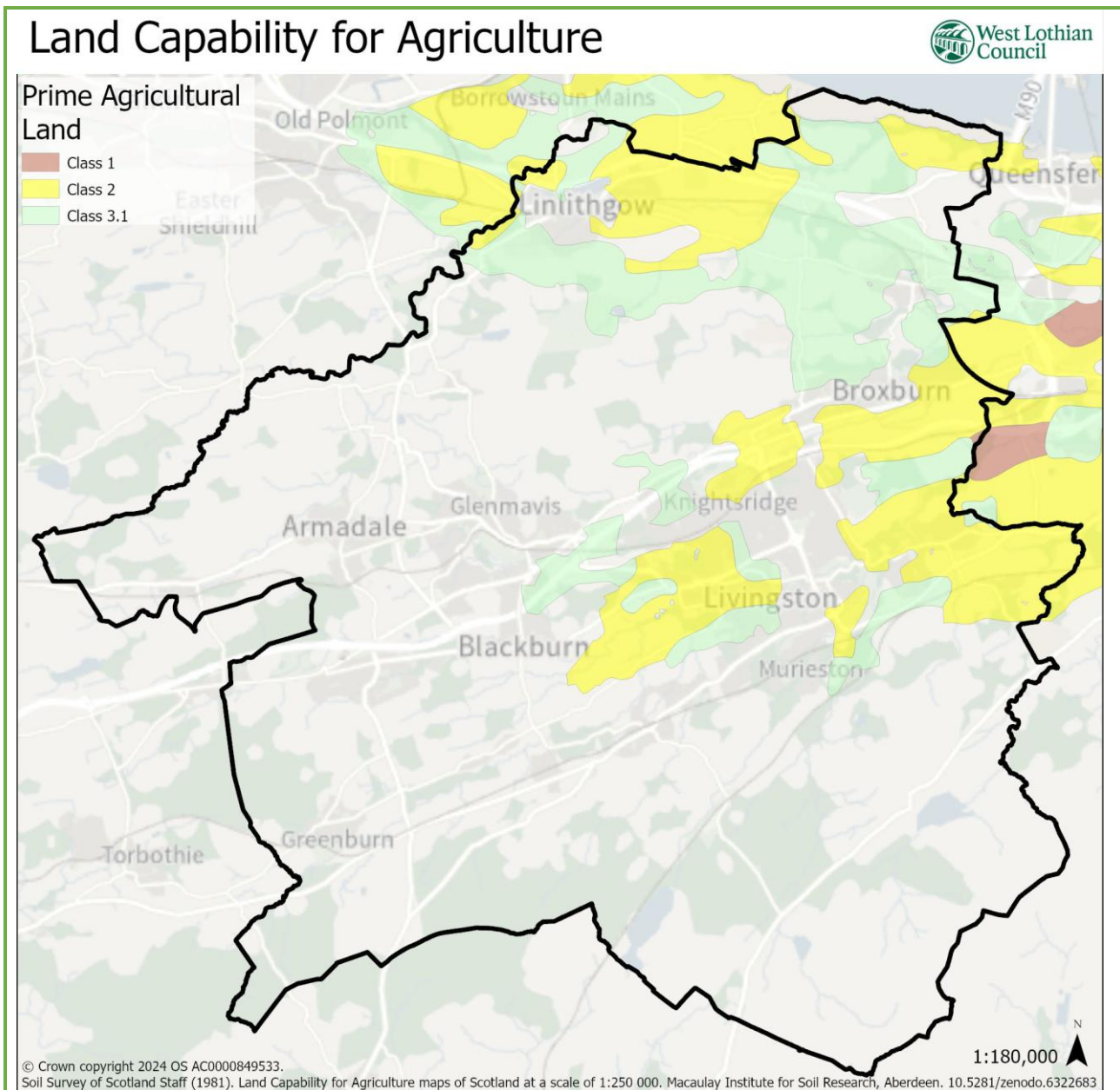


Figure 11. Map of land capability for agriculture in West Lothian, 1:250,000

3.9 More detailed mapping is available in the Land capability for agriculture (partial cover). The Partial cover maps are more detailed and were compiled more recently. They involved more field checking and liaison with government and with research and agricultural organisations such as the Scottish Agricultural Colleges and the National Farmers Union of Scotland in comparison to the 1:250 000 maps. The work to produce the 1:250 000 maps was largely desk based and built on the 1:250 000 soils mapping.

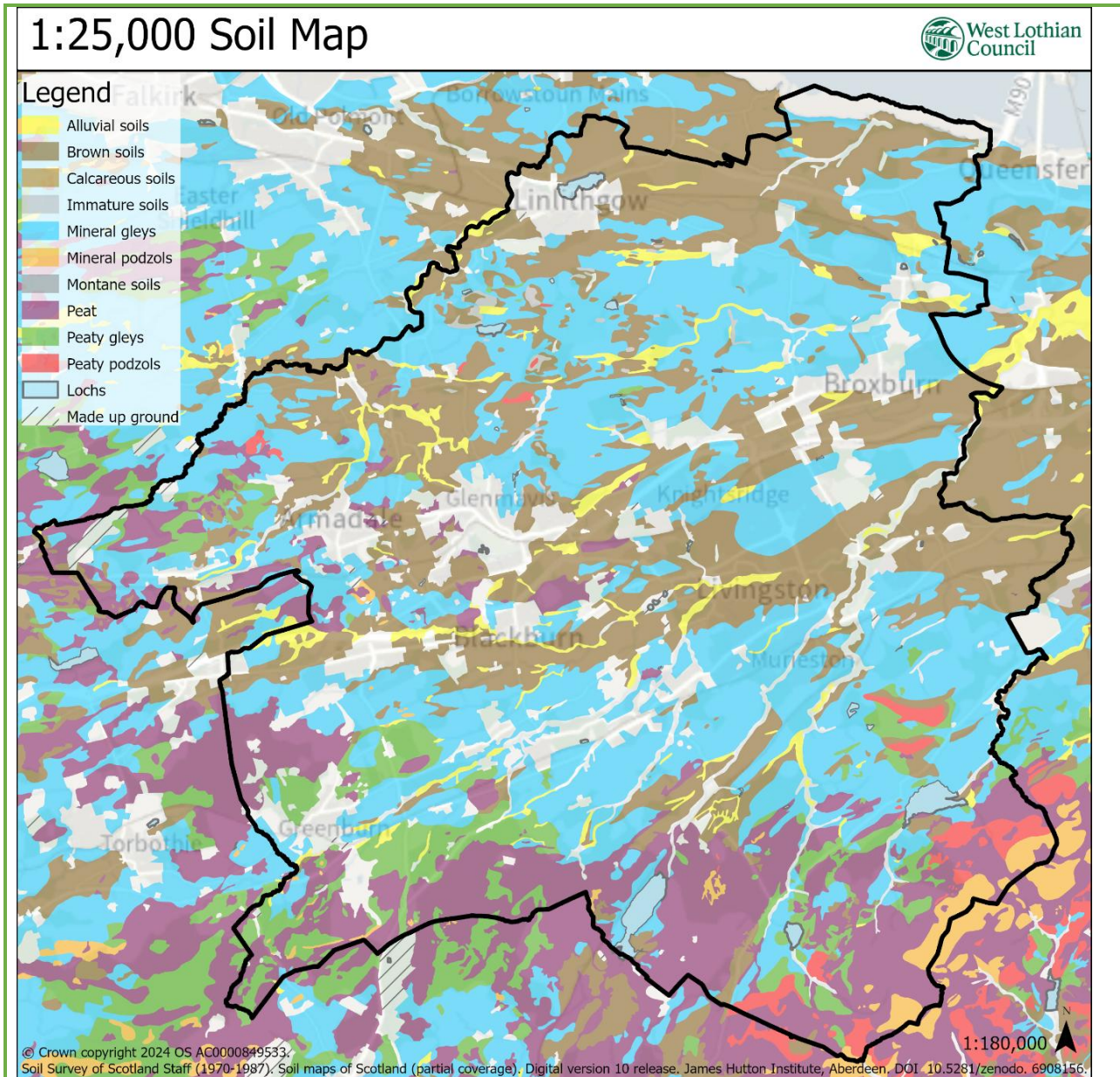


Figure 12: 1:25000 soil map

3.10 In West Lothian, the prime agricultural land is found in the north, east and more settled areas.

3.11 Peat is a specific issue for soils due to its prevalence in Scotland, high level of carbon sequestration and general risks to this soil/ habitat type which is also a qualifying priority habitat active blanket bog/ active raised bog/ bog woodland. The main data sources are:

- Carbon and peatland 2016 map (**Scotland's Soils - WLC 169**) which includes clear and useful categories
- Scottish bare peat viewer (**WLC 341**) - pixelated data from Sentinel 2 satellite captured in summer 2018 mapping larger extents of bare peat
- Scottish Natural Heritage: Phase 1 Habitat Survey 1993: Mire and Bog (**WLC 397**).

3.12 Blawhorn Moss in West Lothian has been designated a National Nature Reserve (NNR) as it is a rare survivor of the raised and blanket bogs that once covered much of central Scotland.

## Peatland

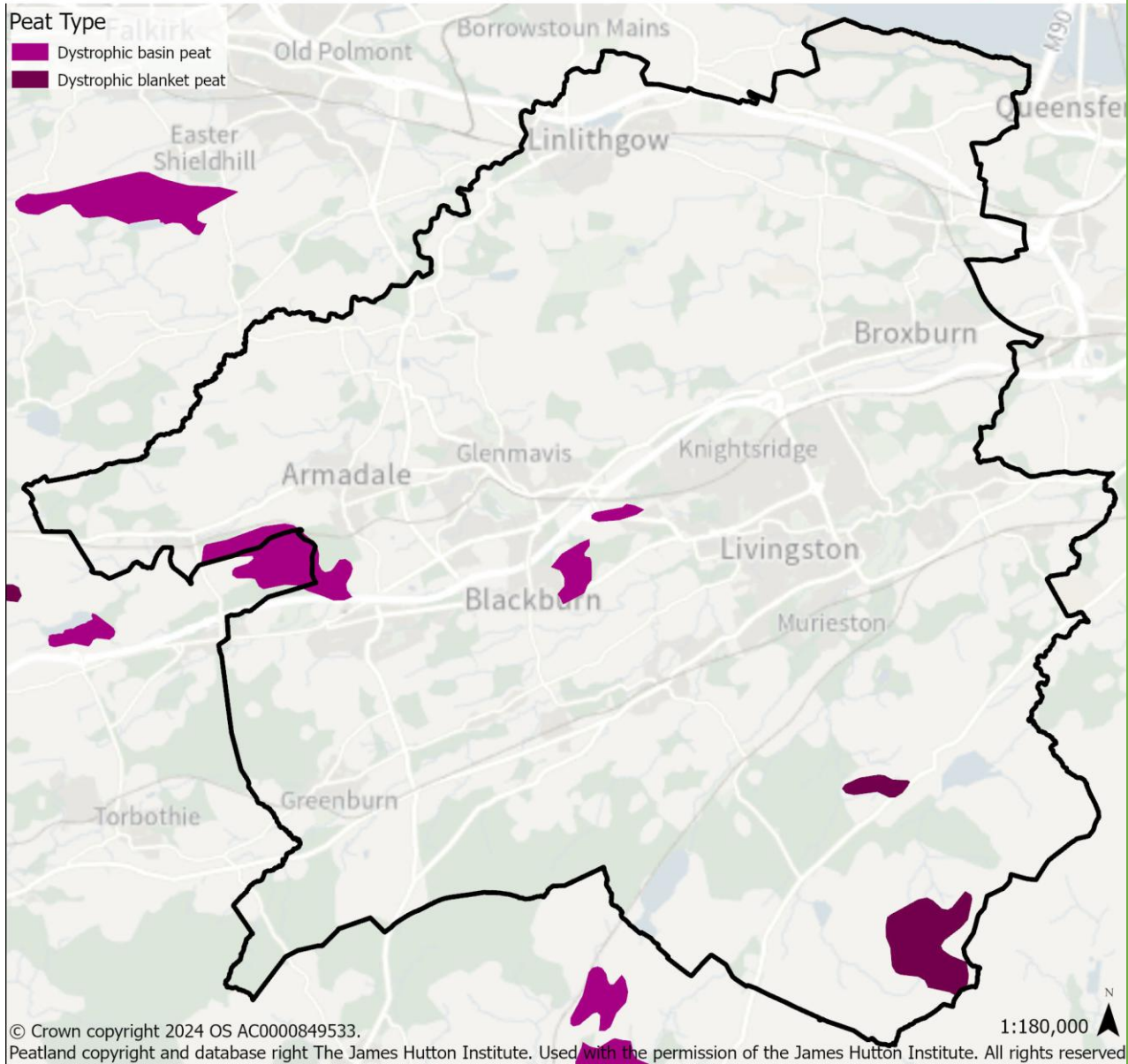
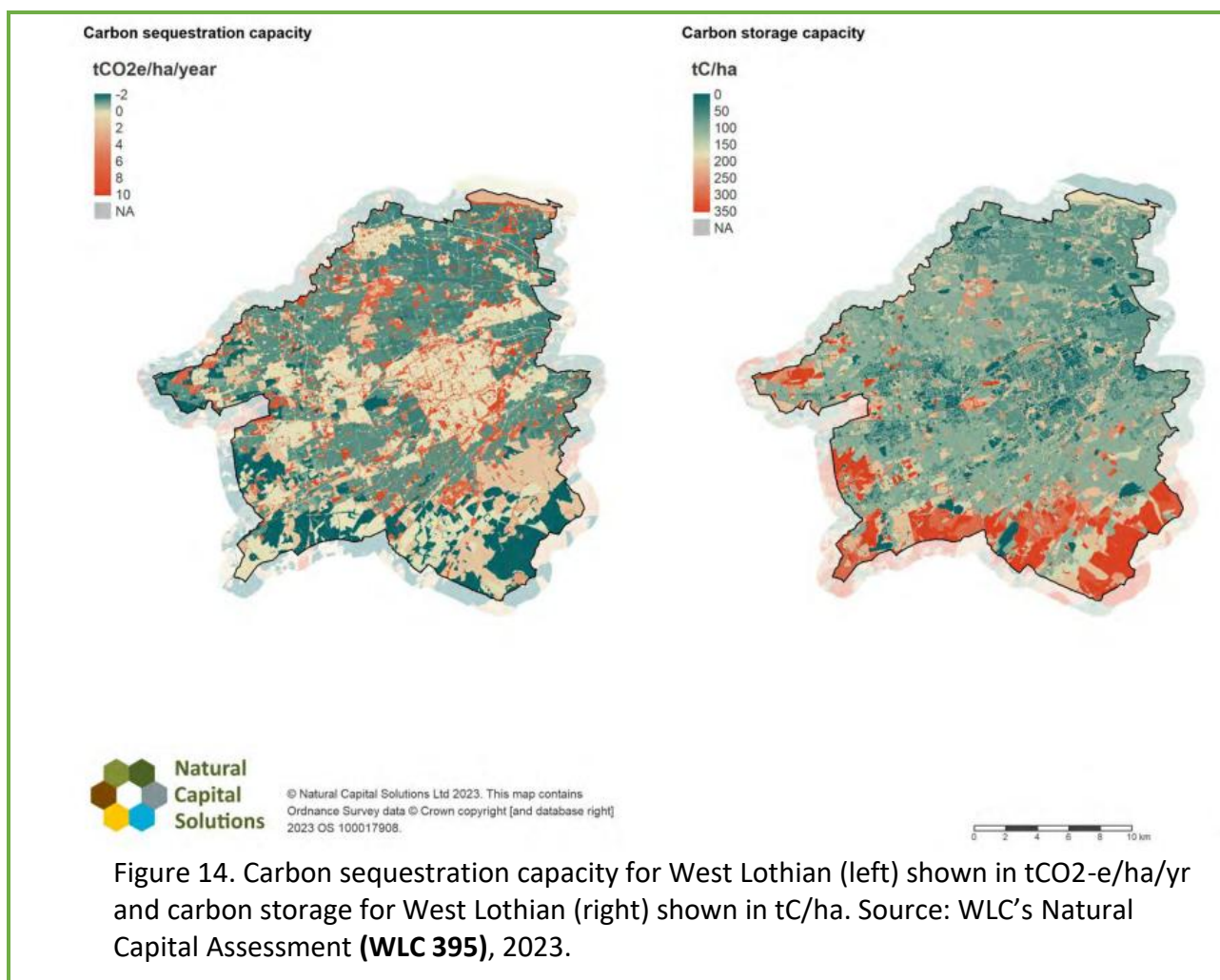


Figure 13. Map of peatland in West Lothian.

## Part 4 - Soil Carbon Sequestration

4.1 Carbon storage and sequestration are seen as increasingly important as we move towards a low carbon future. Carbon storage capacity indicates the amount of carbon stored naturally in soil and vegetation and is the stock of carbon in the natural environment, whereas carbon sequestration (Section 4.2) indicates the annual physical flow of carbon captured by growing plants or emitted by agricultural activities and measures its annual flow.

- 4.2 The council has carried out a Natural Capital Assessment (**WLC 395**) to quantify the benefits that each habitat in West Lothian provides in terms of carbon storage and sequestration. Alongside mapping of prime agricultural land set out above, this assessment will support the council to define ‘land of lesser quality that is culturally or locally important for primary use (i.e. for example food production, flood management, water catchment management and carbon storage)’.
- 4.3 For every ecosystem service, the current capacity of the natural environment to deliver that service was mapped. These ‘heat maps’ show broadly which habitats/areas are currently giving the most benefit for each function e.g. which areas best regulate water flow, store the most carbon (over the long term), sequester the most carbon (year on year), etc. In terms of soils:
- 4.4 West Lothian land is, on average, a *source* of yearly carbon emissions at a rate of -0.33 tCO<sub>2</sub>e/ha/yr. This is mainly due to emissions associated with agriculture and degraded bog habitats, which are not currently offset by the presence of good condition semi-natural habitats. This is a good reason to improve the condition of habitats across the area.
- 4.5 The land owned by WLC, in comparison, sequesters (takes in) carbon across the whole landholding with an average of 2.4 tCO<sub>2</sub>e/ha/yr; this is because woodland is common on WLC ground and emissions from farming and degraded peat habitats are much less common on council land.
- 4.6 For West Lothian as a whole, the presence of large areas of deep peat in blanket and raised bogs in the south and west mean there is significant capacity for long-term carbon storage within the soil of West Lothian.
- 4.7 For carbon storage, the highest values (>800 tC/ha, red on Map 5 below) are found in areas of blanket bog to the south of the region, associated with Craigengar SSSI and SAC, and Cobbinshaw Moss SSSI; and to the northwest, associated with Blawhorn Moss SSSI and SAC. Areas of raised bog also score highly, such as Tailend Moss SSSI close to Livingston. There is an additional area of raised bog identified to the south of Longridge which also shows high values of carbon storage.
- 4.8 For carbon sequestration, the greatest areas of carbon sequestration (in dark red, typically 9 tCO<sub>2</sub>e/ha/year) are broadleaved woodland habitats on mineral soil found spread across the county, with areas in WLC landholdings such as Beecraigs Country Park and Almondell and Calderwood Country Park demonstrating high capacity (map below).



## Summary of Implications for the Proposed Plan

Based on the evidence the proposed plan will be required to:

1. Identify and protect locally, regionally, nationally and internationally important natural assets, on land and along coasts. The spatial strategy should safeguard them and take into account the objectives and level of their protected status in allocating land for development.
2. Protect West Lothian's soil assets, including peatland and carbon-rich soils which can play a critical role in helping to achieve the net zero emissions target by 2045, contribute toward climate adaptation through the control of flooding and increased resilience to drought, and, are a source of food and other crops, supporting West Lothian's rural economy. The proposed plan should support the protection of carbon rich soils and prime agricultural land.
3. Support the management of West Lothian's land for carbon capture which can support the mitigation of climate change. LDP2 will protect carbon rich environments including areas important for carbon sequestration including tree planting and peatland restoration.
4. Require that development proposals will only be supported if they are designed and constructed in accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land, in a manner that

protects soil from damage including from compaction and erosion, and that minimises soil sealing.

5. Review and set out the eight potentially acceptable locations for wind energy identified in the Landscape Capacity Study for Wind Energy Development in West Lothian (2011) (**WLC 319**)

### **Summary of Stakeholder Engagement**

To be updated post April 2026 engagement

### **Statements of Agreement / Dispute**

To be updated post April 2026 engagement