EAST AYRSHIRE COUNCIL

Local Development Plan 2

Peatland and Carbon-rich Soils

Non-statutory Planning Guidance

2025

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Section 1 – Purpose of the Planning Guidance

1.1 Introduction

East Ayrshire benefits from a diverse environment which helps to create a sense of character and place within the area. Local Development Plan 2, together with associated Planning Guidance, sets out the policies and criteria against which any planning application submitted in East Ayrshire will be considered.

1.2 Purpose of Non-Statutory Planning Guidance

This Non-Statutory Planning Guidance sets out detailed policy advice to help users meet the requirements of Local Development Plan 2 alongside the Scottish Government's National Planning Framework 4. It should be read in conjunction with the policies in the plan and any other planning guidance relevant to the type of development proposed. Whilst this guidance is not statutory supplementary guidance, forming part of the Plan, it will nevertheless form a material consideration in the determination of relevant planning applications.

This peatland and carbon-rich soils planning guidance aims to support and provide more detail on the policies of LDP2 that seek to preserve and enhance peatland and carbon-rich soils . These policies have been written in recognition of the benefits of carbon-rich soils and peatland areas, and the importance of minimising the adverse impacts from development on these soils, including by the release of CO_2 into the atmosphere.

1.3 How to use this Planning Guidance

This planning guidance is intended as a tool in helping applicants navigate their way through the requirements of the LDP2, in particular policy NE11: Soils. It also links to NE4: Nature Crisis and NE5: Protection of Areas of Nature Conservation Interest.

Section 2 – Policy Context

2.1 National Planning Framework 4 (NPF4)

National Planning Framework 4 (NPF4) was formally adopted by the Scottish Government in February 2023 and is Scotland's most ambitious National Planning Framework to date with regard to tackling the global climate emergency and nature crisis.

Policy 1 of the NPF4, shapes the document as a whole:

"When considering all development proposals significant weight will be given to the global climate and nature crises"

The intent behind this policy is to encourage, promote and facilitate development that addresses the global climate emergency and nature crises. Proposals must also protect, conserve, restore, and enhance biodiversity as per Policy 3. In addition, the intent of Policy 5 is to protect carbon-rich soils, restore peatlands, and minimise disturbance to soils from development.

2.1.1 Relevant Policies

Other policies in NPF4 that are relevant to this planning guidance include:

Policy Name	Policy Intent
Policy 2 – Climate mitigation and adaptation	To encourage, promote and facilitate development that minimises emissions and adapts to the current and future impacts of climate change.
Policy 3 – Biodiversity	To protect biodiversity, reverse biodiversity loss, deliver positive effects from development, and strengthen nature networks.
Policy 4 – Natural places	To protect, restore and enhance natural assets making best use of nature-based solutions.
Policy 5 – Peatland and Carbon-Rich Soils Protection	To protect carbon-rich soils, restore peatlands, and minimise disturbance to soils from development.
Policy 6 – Forestry, Woodland and Trees	To protect and expand forests, woodland and trees.
Policy 11 – Energy	To encourage, promote, and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS).
Policy 20 – Blue and Green Infrastructure	To protect and enhance blue and green infrastructure and their networks.
Policy 29 – Rural Development	To encourage rural economic activity, innovation and diversification whilst ensuring that the distinctive character of the rural area and the service function of small towns, natural assets and cultural heritage are safeguarded and enhanced.

Table 1: Relevant NPF4 policies

2.2 Local Development Plan 2 (LDP2)

East Ayrshire Council adopted Local Development Plan 2 in April 2024; it contains a strong policy presumption against any development that will disturb or remove valuable areas of peatland, deep peat, or other carbon-rich soils. As the most recently adopted part of the development plan, should there be inconsistencies between LDP2 and NPF4, the more recently adopted LDP2 will take precedence.

2.2.1 Spatial Strategy and Aims

The Local Development Plan 2 acknowledges the constant global nature crisis and the need for biodiversity enhancement, nature recovery, and nature restoration throughout East Ayrshire.

- Protect and enhance East Ayrshire's diverse natural environment and habitats and help tackle the nature crisis

Within the Spatial Strategy of LDP2, it outlines that East Ayrshire Council will support green recovery, tackle biodiversity loss, and enhance the Central Scotland Green Network.

Aim B of the Spatial Strategy is:

B. Protecting and enhancing our peatlands

Within Aim B, it is highlighted that:

"We will:

- *Protect our existing peatland habitats. This means:*

i. Identifying and safeguarding our peatland and bog restoration sites which have undergone in-situ conservation or enhancement work;

ii. Presuming against disturbance and removal of valuable peat, carbon rich soils, deep peat and priority peatland habitat; and

iii. Not supporting extraction or exportation of peat for any commercial purposes

- *Work with partners to support peatland restoration and long term enhancement of peatland habitats within East Ayrshire*

This element of our strategy will be supported by policies NE5 and NE11."

2.2.2 Policy NE11: Soils

Policy NE11 sets out to protect peatland and carbon-rich soils from disturbance, erosion, compaction, and sealing where possible within East Ayrshire.

Policy NE11: Soils

Development proposals on undeveloped land must be designed to:

• avoid, if possible, and, if avoidance is not possible, minimise disturbance to soils;

• protect soils from damage, including from compaction and erosion; and

• minimise soil sealing**.**

Proposed development on peatland, carbon rich soils and priority peatland habitat

In recognition of the role of peatland soils as valuable carbon stores or "sinks", the Council will seek to minimise adverse impacts from development on such soils, including by the release of CO2 to the atmosphere. The Council will support and promote the restoration of peatland habitats, where there is potential for such habitats to become active carbon stores and help to reduce net carbon emissions. There will be a presumption against the disturbance and/or removal of Class 1, 2 and 5 peatland, deep peat and other carbon rich soils unless it is essential for one or more of the following:

• In-situ conservation purposes.

• Restoration of peatland habitats

• Essential infrastructure and there is a specific locational need and no other suitable site.

• Generation of energy from renewable sources that optimises the contribution of the area to greenhouse gas emissions reduction targets.

• Small-scale development directly linked to a rural business or farm.

• Development proposals that would support a fragile community in a rural area.

Minimising Disturbance to soils

Where development is proposed on peat and other carbon-rich soils, a detailed site-specific survey of peatland habitats is required which identifies:

• Baseline depth, habitat condition, quality and stability of carbon-rich soils.

• Likely effects of development, including on soil disturbance.

• A comprehensive assessment and justification of the likely net effects of development on climate emissions and loss of carbon.

Any detailed survey work must consider fully the potential impact on Class 1, 2 and 5 areas of carbon-rich soil, deep peat and priority peatland identified by NatureScot and shown on the Soils Map in Volume 2 of this plan.

Where an assessment identifies peat on site, a peat management plan will be required. This must show:

• That adverse impacts including unnecessary disturbance, degradation and erosion have been avoided, where possible, or minimised through best practice, where this is not possible;

• With other plans, as appropriate, that the site can be restored or enhanced to create a functioning peatland system capable of achieving carbon sequestration;

• How peat is to be carefully handled to retain its existing structure and integrity for reuse; and

• Storage of peat to be undertaken in purpose-designed peat storage areas.

All storage of peat and its use in the restoration of a site must be carried out to the satisfaction of the Council, NatureScot and the Scottish Environment Protection Agency.

If peat that has not been identified as Class 1, 2 or 5 by NatureScot is required to be removed in order to access mineral reserves, a full justification for its removal must be provided.
Commercial peat extraction
Development proposals for new commercial peat extraction will only be supported where: • The extracted peat is required to support the Scottish whisky industry; • There is no reasonable substitute; • The area of extraction is the minimum necessary and the proposal retains an in situ residual depth of peat of at least one metre across the whole site, including drainage features; • The time period for extraction is the minimum necessary; and • There is an agreed comprehensive site restoration plan which will progressively restore, over a reasonable timescale, the area of extraction to a functioning peatland system capable of achieving carbon sequestration.

The Council does not consider the extraction of peat for commercial purposes to be appropriate with the sole exception of extraction to support the Scotch whisky industry, as also supported by the Scottish Government through the National Planning Framework 4.

Some helpful definitions to interpret NE11

Deep peat	Soil with a peat layer of depth greater than 50cm.
Carbon rich soils	Peat, and peaty soils. In Scotland, peat soils are defined as soil with a surface peat layer with more than 60% organic matter and of at least 50cm thickness. Peaty soils have a shallower peat layer (<50cm) at the surface.
Class 1, 2 and 5 peatland, deep peat and other carbon rich soils	The Carbon and Peatland map 2016 identifies where areas of peatland are likely to occur across Scotland - Carbon and peatland 2016 map | Scotland's soils. The map identifies different classes of peatland. Policy NE11 places a presumption against the disturbance of classes 1, 2 and 5: Class 1 and 2 are solely, or dominated, by land with peat soil and peatland habitats. Class 5 is peat soil greater than 50cm in depth, but which does not support peatland habitats.

Table 2: Policy NE11 definitions

2.2.3 Other relevant Policies

Other policies in LDP2 that are relevant to this Supplementary Guidance include:

Policy Name	Policy Intent
SS1: Climate Change	To encourage development that minimizes carbon emissions, maximises carbon storage, and is designed to mitigate and be adaptable to the impacts of climate change.
SS5: Coalfield Communities Landscape Partnership	Supporting the aims of the Coalfields Communities Landscape Partnership of which includes regenerating and rejuvenating the communities and landscape of the former coalfield area.
NE4: Nature Crisis	To encourage development that contribute to the enhancement of biodiversity, including the restoration of degraded habitats.
NE5: Protection of Areas of Nature Conservation Interest	Protects areas of Nation Conservation Interest from developments which could have an adverse direct or indirect impact on these areas.
NE6: Vulnerable, Threatened and Protected Species	Protects against developments which could potentially have adverse impacts on vulnerable, threatened and / or protected species. It also enforces that if development does appear to have an impact on such species, that mitigation measures are put in place.

Table 3: Relevant LDP2 policies

Section 3 – Why are peatlands important?

3.1 Peatland and Carbon Rich Soils

Peat is an accumulation of partially decayed vegetation and organic matter that has slowly accumulated at the surface in a water saturated environment with the absence of oxygen. Peat is found in wet, acidic conditions such as bogs, swamps and fens. Scotland has around 2 million hectares of peat; one of the most significant concentrations across Europe and the majority of the UK's peatland landscape.

3.2 What are Peatlands?

Peatlands are areas of land containing peat which support a variety of habitats and species that are important for biodiversity. Those conditions are usually associated with peat-forming vegetation in peatland habitats.

The UK, and in particular Scotland, is peat rich; Scotland has around 2 million hectares of peatlands, about 60% of the UK's peatlands and 4% of Europe's total peat carbon store.

Peatland are a pivotal part of our environment with multiple benefits:

- They are a **natural flood defence**, retaining water and reducing the risk of flooding elsewhere in the river catchment;
- They create **safe drinking water** due to their natural water filtration qualities;
- They are **biodiverse** and provide an **important habitat** for a wide range of flora and fauna, many of which are of national or international significance; and
- Crucially, healthy peatlands and areas with carbon-rich soils act as **carbon-sinks**, storing carbon annually, helping to reduce net carbon emissions. Disturbed or degraded peatlands can release large amounts of carbon dioxide, contributing to climate change. Protecting and restoring peatlands therefore plays a critical role in efforts to tackle climate change.

3.3 Peatlands in East Ayrshire

In East Ayrshire, around 22% of total land cover is classed as peatland. The largest areas of peatland are concentrated in the upland / moorland area and forested areas, generally found around the eastern boundary of the authority area.

Peatland bogs come in a variety of different forms, dependent on location and climate. In Scotland, peatlands are dominated by blanket bog and raised bogs, with some fens.

In East Ayrshire, there are 2 types of bogs; blanket bogs and raised bogs.

What are blanket bogs?	**What are raised bogs?**
Generally an expansive upland habitat, usually found in large, open areas of flat or gently sloping ground where drainage is poor.	Discrete deep bodies of peat, which can be several metres higher than the surrounding land sitting above the water table. Raised bogs are much wetter than surrounding land.
Blanket bog is rare globally, but high concentrations are found in Britain and Ireland; 20% of the worlds blanket bog.	Found in the lowlands often surrounded by agricultural land.
Blanket bog is one of Scotland's most common semi-natural habitats, taking up around 23% of total land area	Raised bogs are widely by unevenly distributed across the wettest parts of the UK.
Few plants have adapted to the blanket bog conditions. Trees are generally absent and mosses, heathers and cotton grasses predominate.	Raised bogs are often home to rare biodiversity. Bog mosses, cotton grasses and heather are supported by the wet conditions, whilst an array of invertebrates are associated with healthy raised bogs.
Threatened wildlife can be supported, such as breeding birds like the Golden Plover and Redshank.	94% of Scotland's raised bogs have been lost in the last 200 years, due to a combination of drainage for agriculture, afforestation and commercial peat extraction.

Table 4: Blanket bogs and raised bogs

East Ayrshire contains both upland blanket bogs and lowland raised bogs. Whilst historically, many have been damaged and disturbed to make way for forestry, mining and agricultural, significant quantities still remain. Three blanket bogs (Merrick Kells, Muirkirk Uplands and Blood Moss & Salt Burn) are recognised as SSSI Geology sites, with a further two raised bogs similarly recognised and designated (Dalmellington Moss and Barlosh Moss).

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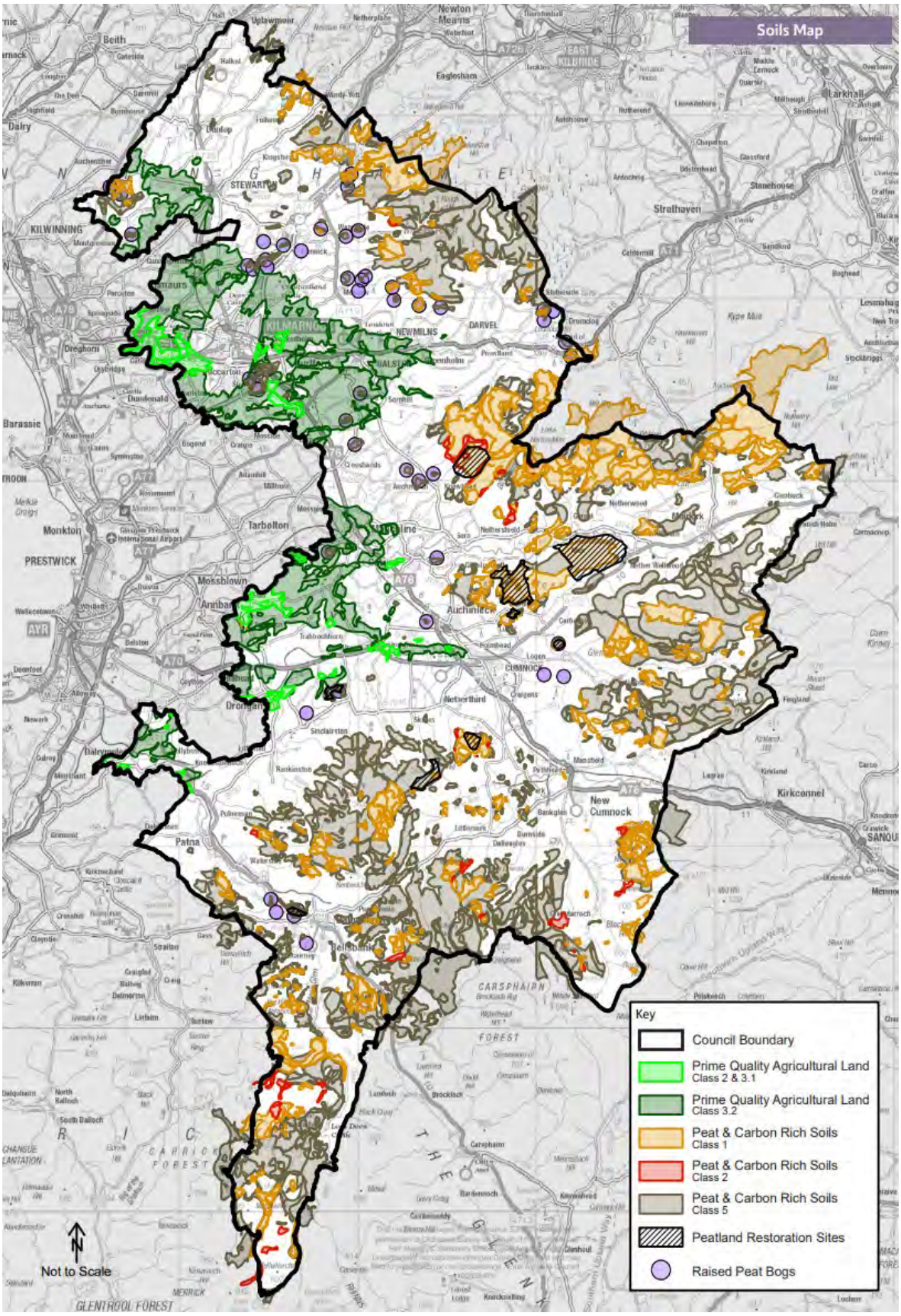


Map 1: Soils map

4.0 Information required to support planning applications

In order to support the implementation of policy NE11, the following guidance sets out what information should be submitted with any application and how to assess potential impacts of a development on peatland.

This should be considered along the NatureScot guidance 'Advising *on peatland, carbon-rich soils and priority peatland habitats in development management*' - Advising on peatland, carbon-rich soils and priority peatland habitats in development management | NatureScot

1. Applicants should carry out a desktop study to confirm whether the development is proposed on peat or other carbon rich soils. In the first instance, the mitigation hierarchy should be followed:

Mitigation Hierarchy:

1. **Avoid** - By removing the impact at the outset.
2. **Minimise** - By reducing the impact.
3. **Restore** - By repairing damaged habitats
4. **Offset** - By compensating for the residual impact that remains, with preference to on-site over off-site measures.

Raised bogs, blanket bogs above 600m and bog pools should be avoided entirely. Any impacts on these habitats are likely to raise issues of national interest which are unlikely to be overcome by offsetting.

2. If complete avoidance is not feasible, in terms of amending the overall location of the proposal, a detailed site survey should be undertaken to ensure there is an accurate understanding of the baseline conditions on site. The detailed site survey follow the guidance set out in - NatureScot - Guidance on Developments on peatland: Peatland survey (2017) - Guidance+on+developments+on+peatland+-+peatland+survey+-+2017.pdf. In summary, the survey should set out:

- An estimate and description of peat depth across the site along with statistical measures of its variability (even when less than 50cm thickness);
- Details of the peat characteristics including:
  - The quality and how this may vary across the site
  - Surface vegetation and habitat qualities of the site
  - Erosion features and slope stability
  - Carbon content

3. The results of the site survey should then be used to help provide the following information to be contained in a peat management plan.

    - A statement which shows how peat has been taken into account in site selection and in the design / layout of the development to avoid disturbance, degradation and erosion in the first instance or minimise such impacts where avoidance is not possible;

    - Habitat management and restoration information, which shows how peat will be managed in the long term as part of wider restoration or enhancement proposals;

    - Detailed information on areas to be removed or moved (quantities, depth etc.), and how this will be carefully handled (including machinery specifications and movement / handling arrangements and which recognises constraints in terms of weather conditions). The intended outcome is that peat retains its existing structure and integrity for re-use;

    - Information on the location of any storage areas (if applicable) (topography, stability, soil type, erosion, drainage patterns / arrangements), how the peat will be stored and for how long;

    - Information on the receiving site (if permanent) to ensure compatibility (presence of contaminants, soil type, drainage patterns, erosion and stability);

    - Aftercare or maintenance arrangements.

4. Depending on the site specific requirements, additional documents may be required:

    - Habitat Management Plan
    - Peat Landslide Hazard Risk Assessment
    - Construction Environmental Management Plan

A brief description of each can be found within the NatureScot guidance - Advising on peatland, carbon-rich soils and priority peatland habitats in development management | NatureScot

5. Peatland restoration measures should be considered in the wider context of achieving overall biodiversity enhancement.

Healthy peatlands support multiple species, including plants and invertebrates that are not found in any other habitat types. Plants such as Sphagnum mosses, Cranberry, Cotton Grass and Sundew are highly adapted to peatland habitats. Meanwhile invertebrates such as the raft spiders live only in peat bogs. A wide variety of bird species also use peat bogs for nesting and as winter habitat, these include Redshank, Snipe and Hen Harrier.

Policy 3 (Biodiversity) of NPF4 and Policy NE4 (Nature Crisis) of LDP2 require that developers do not only protect biodiversity, but also enhance it. This requirement is critical for any development affecting peatlands or other areas of carbon rich soils, given the value of the habitat they support.

Planning applications should be accompanied by a statement setting out measures to conserve, restore and enhance biodiversity, **in proportion to its nature and scale.** These measures should leave nature in a better state than before development. For some sites, this information may be incorporated into the peatland management plan, however, given that peatland restoration may only be one aspect of wider biodiversity enhancement, this is likely to often require a separate statement. Alternatively, for certain sites it will form part of the Environmental Impact Assessment Report.

It should be noted that current NatureScot guidance, endorsed by this guidance, requires that:

- restoration to achieve offsetting (i.e. compensation rather than biodiversity enhancement) should be in the order of 1:10 (lost:restored).

- Enhancement (i.e. additional measures beyond those required to achieve the 1:10 offsetting ratio) should be an additional 10% of the baseline assessment of the extent of priority peatland habitat.

For additional guidance on potential biodiversity enhancement measures, the NatureScot guidance 'Developing with nature' should be referred to - Developing with Nature guidance | NatureScot.

5.0 Enhancing our peatlands

At a strategic level, the LDP2, through its spatial strategy, seeks not only to protect existing peatland habitats, but also to support and encourage peatland restoration and long term enhancement.

5.1 Coalfield Communities Landscape Partnership

A key means by which LDP2 supports restoration and enhancement is through Policy SS5: Coalfields Communities Landscape Partnership (CCLP). Supported by £2.2 million from the National Lottery Heritage Fund, the CCLP is a community-led, landscape approach to regenerating the landscape of the East Ayrshire coalfields. Policy SS5 supports development that contributes to the vision and aims of the CCLP and makes clear that the Council will not support developments that will impact on the long term sustainability of CCLP projects. This carries forward the policy framework of the now superseded Minerals Local Development Plan 2020, which embedded securing and delivering the Landscape Partnership as part of the Plans focus on regeneration and restoration, moving away from an extraction focus.

Under the CCLP framework, partners throughout the former coalfield area have delivered a number of environmental, recreational and heritage projects, with the overall aim of reconnecting communities with their heritage and surrounding landscape.

5.2 East Ayrshire Coalfield Environment Initiative

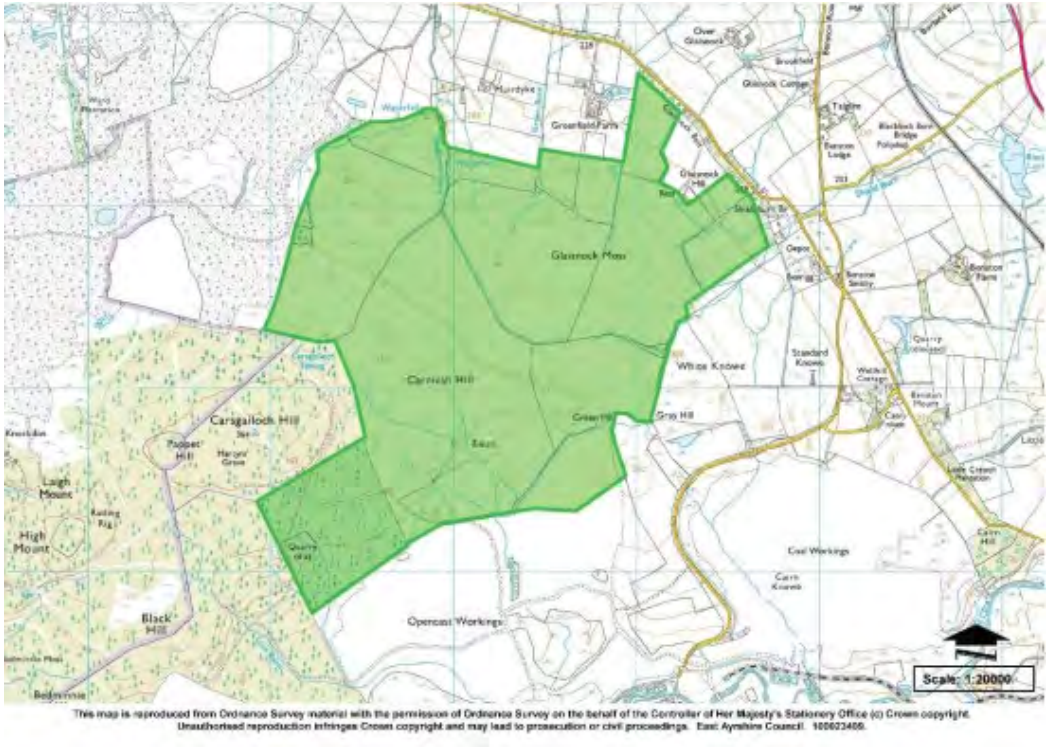
The East Ayrshire Coalfield Environment Initiative (CEI) is a partnership organisation, which has been working over the last 20 years to enhance, conserve and promote the environment of East Ayrshire's former coalfield area. Along with its partners, the CEI has been improving peatland and bog habitats since 2013, and has enhanced 531 hectares of peatland areas across 7 sites.

5.3 The Perfect Peatlands Project

A peatland restoration project 'perfect peatlands', driven forward by the CEI, has formed an important element of the CCLP. In total, on completion the project will have restored over 100 hectares of peatland habitat, equivalent to around 140 football pitches.

5.3.1 Case study - Perfect Peatlands - Restoration of the Glaisnock Moss Bog Complex

Located to the South West of Cumnock, Glaisnock Moss is an area of blanket bog that forms part of a recognised Local Nature Conservation Site.



Map 2: Glaisnock Moss Local Nature Conservation Site

As with much of the peatland in the South-West of Scotland, Glaisnock Moss has in the past been drained to improve its grazing quality. This draining has had a number of damaging effects:

- Overloading of nearby watercourses, leading to erosion and flooding.
- Loss of bog specialist species and overall biodiversity loss.
- Transformation of the bog from carbon sink to carbon sources; essentially the carbon retention properties of the bog have been lost, with the damaged peatland therefore contributing to carbon emissions rather than helping to tackle them.

5.3.2 What has been done?

Working with a range of partners, including the Council, NatureScot Peatland Action, East Ayrshire Woodlands and a private contractor (McGowan's environmental engineering), the Coalfield Environment Initiative has delivered a programme of re-wetting the peatland, as a key part of the perfect peatlands project. Over 3000 peat dams have been installed and 30 kilometres of drain line have been 'zipped shut' using specially adapted excavators. Where the drainage features were too wide for damming with peat, plastic sheet-pile dams, braced with timber when necessary, have been installed.

By returning the water to its natural level, grasses and heather begin to die off and are replaced with sphagnum moss which goes on to form new peat. In addition to rewetting the bog, a programme of scrub clearance was undertaken, with forestry apprentices removing by hand hundreds of self-seeded Sitka spruce seedlings which had blown in from neighbouring plantations.

5.3.3 What has been achieved?

Post-restoration monitoring is demonstrating the success of the project.

- A marked increase in water storage on the site.
- An increased abundance of bog species, including sphagnum moss, essential for carbon retention.
- Momentum to expand the works onto other sites, with the CEI now looking to tackle nearby former surface coal mining sites, which offer significant potential to restore peatland into a condition that fully maximise all the benefits it offers.

The work demonstrates what can be achieved when partners, funders and landowners come together under a positive policy framework. Expansion of this work and the delivery of similar projects is fully supported by the Development Plan, in recognition of the multiple benefits that can be achieved.

6.0 Further guidance and links

More detailed guidance, which builds on the principles raised in this document, has been produced by other organisations. These should be used and the guidance taken on board to inform development proposals:

Scotlands National Peatland Plan - Scotland's National Peatland Plan: Working for our future | NatureScot

NatureScot - Guidance on peatland, carbon-rich soils and priority peatland habitats in development management - Advising on peatland, carbon-rich soils and priority peatland habitats in development management | NatureScot

NatureScot - Guidance on Developments on peatland: Peatland survey (2017) - Guidance+on+developments+on+peatland+-+peatland+survey+-+2017.pdf

Peatland Action is a national programme, funded by Scottish Government, to restore peatlands across Scotland – a range of useful resources, case studies and data can be viewed here - Peatland ACTION - Resources | NatureScot

SEPA – Guidance on Developments on Peat and off-site uses of waste peat - wst-g-052-developments-on-peat-and-off-site-uses-of-waste-peat.pdf

7.0 Contact details

Policy advice:

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