



Chapter 2:

Landscape and Visual

State of the Environment Report

EAST AYRSHIRE COUNCIL STATE OF THE ENVIRONMENT REPORT CHAPTER 2 – LANDSCAPE AND VISUAL

SUMMARY

Key Messages

Landscape Character

- There are 18 separate and distinct rural landscape types within East Ayrshire
- The landscape character of East Ayrshire has a high proportion of upland and upland fringe landscapes, located in the east and south and grading into lowland farmland to the west and north.
- The landscape has seen several areas of change over the years but is most significantly affected by surface coal mining and windfarms.
- The most significant landscape effects are in the *Foothills with Forest*, *Plateau Moorland with Forest*, *Upper River Valley* and *Southern Upland* landscape character types.

Designated Landscapes

- There are no national landscape designations in East Ayrshire.
- There are 3 locally designated landscape areas in East Ayrshire, named Sensitive Landscape Character Areas (SLCAs). They cover nearly 37% of the local authority area.
- There are 7 Gardens and Designed Landscapes located in East Ayrshire.
- The areas of highest relative wildness in East Ayrshire correspond with the upland areas to the south and east of the local authority area. Within this area, the Merrick Wild Land Area, located mainly in Dumfries and Galloway, overlaps the south of East Ayrshire.

Overall Trends in Landscape

The East Ayrshire landscape has undergone many changes over the past decades. Several trends or potential trends are identified in the Ayrshire Landscape Assessment. The principal changes between 1990 and 2015 largely reflect these trends and include:

- closure of deep mining operations with bings and some surface structures remaining;
- an expansion of surface coal mining operations, many of which are un-restored or poorly restored;
- commercial afforestation;
- an expansion of windfarms and wind turbines, installed and consented;
- expansion of settlements in some areas, decline in some mining settlements;
- construction of electricity transmission lines;
- development of major roads (e.g. M77).

The most significant trends are those relating to the supply of energy: surface coal mining and windfarms. These developments are concentrated predominantly in upland landscape character areas to the south and east. There is a need for control and management of developments which place pressure on the landscape through the planning system.

The demise of two surface coal mining operators left 22 sites un-restored, with some gradually deteriorating. Future trends indicate a gradual reduction in surface coal mining and work has started by EAC to manage/ restore some of the sites. This will lead to a gradual improvement in the repair and quality of landscapes, although not a return to the original state.

Wind energy is likely to be the main driver of change in the landscape in the next few years. Whilst the Council has policies and supplementary guidance covering this issue, the number and scale of existing, consented and proposed developments requires that a planned and focused Council-wide approach to the management of this change should be adopted.

Status and Trend



Recent Trends

- Improving
- Deteriorating
- Stable
- Unclear

Grades

- Very Good
- Very Poor

Confidence

- Adequate high-quality evidence and high level of consensus
- Limited evidence or limited consensus
- Evidence and consensus too low to make an assessment

OVERVIEW

1.1 Landscape and Landscape Character

Landscape is defined by the European Landscape Convention¹ as: ‘...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors’.

The huge variety in landscapes across the world results from variations in physical, climatic, biological and anthropogenic factors. Scotland’s landscapes are highly varied considering the modest size of the country, and many of the landscapes, including the Highlands and Islands, are world-renowned for their scenic and dramatic nature. On a more local scale, landscape is also the immediately recognisable physical and visual context for all locations and inhabitants of a country or area. The European Landscape Convention recognises an ‘all landscapes’ approach in which all landscapes are important in themselves rather than particular areas designated or admired for a particular feature or characteristic.

Consistently recognisable landscape types and areas can be defined by their individual characters. Landscape character is defined in the Guidelines for Landscape and Visual Impact Assessment (GLVIA) 3rd edition² as: ‘A *distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse*’.

The consistent nature of landscape character provides a basis on which baseline environments can be described and against which change can be measured. Changes to landscape include changes in the physical environment that affect landscape elements and features and the changes to landscape character which result from the physical changes and the changes to visual amenity.

Landscapes can result from complex interactions of factors and the perception of landscape character can be subjective. Nevertheless, differences between landscapes and change in appearance of landscapes over time are readily apparent to most people. The assessment of landscape character and change therefore requires a transparent, objective and methodical approach in order to present consistent and interpretable results.

1.2 Assessment of Landscapes

Landscape Character Assessment (LCA) and Landscape and Visual Impact Assessment (LVIA) are tools for assessing landscapes and changes to landscapes:

- Landscape character can be described and classified by LCA.
- Sensitivity to general or specific change can be assessed.
- Change in landscapes can be monitored over time by updating landscape character assessments.
- LVIA is a more specific assessment of change over limited areas affected by specific proposed changes, in which degree or magnitude of change can be assessed against the existing landscape resource.

¹ Council of Europe (2000) *European Landscape Convention*, Strasbourg: Council of Europe

² Landscape Institute and IEMA (2013) *Guidelines for Landscape and Visual Impact Assessment, Third Edition*

- Judgements on whether the effects are beneficial, adverse or neutral relate to the current strength of existing landscape character, the degree a change fits with this character and the contribution it makes through enhancing, reinforcing or fragmenting character.

When considering the wider landscape of East Ayrshire and assessing trends and potential future change or threats, the approach is necessarily broad, requiring available spatial information on landscape and of the changes that have occurred, are occurring and could potentially occur.

1.3 Scotland's Landscapes

Scotland has a highly diverse landscape, much of it distinctive and world-renowned. The State of the Environment Report³ for Scotland regards landscape as an important asset to health, well-being and economy.

A national Landscape Character Assessment (LCA) programme over the past 20 years has identified 372 unique types of landscape character across Scotland, which can be grouped into 53 broader types. Particularly important to the distinctive landscape character of Scotland are:

- Built heritage and settlements reflecting past history, with distinctive vernacular style creating a strong sense of place
- Rural character, covering 94% of the land area with diverse land uses from rugged highland sporting estates to enclosed, fertile lowland fields and coastal landscapes, often with distinctive areas of transition such as the Highland Boundary Fault
- Cultural and natural associations reflecting a strong sense of the past, varied geology creating dramatic landscapes and extensive semi-natural landscapes where human influence is minimal

Scotland's State of the Environment Report states that data on landscape change across the country is currently incomplete and difficult to interpret. It takes the view that there have been no significant losses or changes in landscape character but that there have been important changes to physical elements of the landscape including:

- Less distinction between regional and local landscapes due to wider similarity in modern buildings, settlement patterns and agricultural practice.
- Loss of distinctive landscape settings to towns and cities due to settlement expansion and infrastructure development.
- Development of renewable energy infrastructure, in particular windfarms, extensively affecting views and the strong natural character of rural landscapes.

These key ongoing changes in land use and the Scottish landscape reflect development pressures and the need for economic growth. Changes also reflect increasing environmental awareness, the need to address the threat of climate change and the targeting of certain types of development through policy and subsidy arrangements.

³ Critchlow-Watton, N., Dobbie, K.E., Bell, R., Campbell, S.D.G., Hinze, D., Motion, A., Robertson, K., Russell, M., Simpson, J., Thomson, D. and Towers, W. (eds) (2014) Scotland's State of the Environment Report, 2014. Scotland's Environment Web.

1.4 The East Ayrshire Landscape

East Ayrshire is located to the west of South Lanarkshire and the north and west of Dumfries and Galloway. It is separated from these local authority areas by the western moorland plateau and the Southern Uplands, which extend west and north into the local authority area. The highest most rugged hills lie in the area bordering Dumfries and Galloway and South Ayrshire in the south, and include the scenic areas of Loch Doon and Glen Afton. Many of the hills have been afforested with commercial plantations which are now mature. In recent years windfarms have become a notable feature, including the extensive developments in the Whitelee area to the north. The upland areas are drained by three main rivers: the River Doon drains northwest from Loch Doon and the River Ayr west from the plateau moorlands, both passing into South Ayrshire and joining the Firth of Clyde at Ayr. The River Irvine passes through Kilmarnock to Irvine in North Ayrshire.

The upland areas grade through valleys and foothills to the west into the extensive Ayrshire Lowlands which extend into South and North Ayrshire. The foothill areas and the fringes of the moorlands have been extensively exploited for minerals, with a long history of mining. Most particularly in recent years extensive surface mining has marked the foothills surrounding Dalmellington, New Cumnock, Cumnock and Muirkirk.

The Ayrshire Lowlands are a rich pastoral landscape of undulating hills, meandering rivers and woodlands dotted with small settlements. Most of the East Ayrshire settlements are in the lowland areas, with the largest settlement and administrative centre, Kilmarnock, in the north of the local authority area. The main roads emanating from Kilmarnock include the A77/M77 north to Glasgow and south to Ayr; the A71 west to Irvine and east to Strathaven and the A76 southeast to Dumfries. The A713 between Ayr and Castle Douglas is a designated tourist route. The A70 runs between Edinburgh to Ayr through East Ayrshire.

STATE AND TREND - DETAILED ANALYSIS

2.1 Causes and Identification of Landscape Trends in East Ayrshire

The following assessment describes the landscapes of East Ayrshire and their current state. In doing so it also identifies recent and current trends that have contributed to the current status and may continue to affect landscape in the future.

As landscape is a broad, all-encompassing concept, landscape issues and trends can be expressed and detected in many ways. Within East Ayrshire there are a number of reports, policies and datasets that provide information on the landscape baseline and can act as indicators of change. These are reviewed below, together with the trends in landscape.

2.2 Key Landscape Changes in East Ayrshire

The East Ayrshire landscape has undergone many changes over the past decades. Several trends or potential trends are identified in the Ayrshire Landscape Character Assessment. The principal changes between 1990 and 2015 largely reflect these trends and include:

- closure of deep mining operations with bings and some surface structures remaining;
- an expansion of surface coal mining operations, many of which are un-restored or poorly restored;
- commercial afforestation;
- an expansion of windfarms and wind turbines, installed and consented;
- expansion of settlements in some areas, decline in some mining settlements;
- construction of electricity transmission lines;
- development of major roads (e.g. M77).

The most significant trends are those relating to the supply of energy: surface coal mining and windfarms. These developments are concentrated in particular areas of East Ayrshire, predominantly in upland landscape character areas to the south and east.

2.3 Landscape Character

2.3.1 Ayrshire Landscape Character Assessment

The Ayrshire landscape character assessment was published in 1998⁴, as part of the national programme, carried out for SNH over all areas of Scotland in the late 1990's. The assessment identifies 22 rural landscape character types (LCTs) throughout Ayrshire, most of which occur as geographically separate landscape character areas (LCAs) in more than one location. This assessment, using data that is now nearly 20 years old, is the first comprehensive landscape baseline study covering East Ayrshire and has formed the basis for informing subsequent development plans and the assessment of landscape capacity and development proposals.

18 rural LCTs are present within East Ayrshire, including four types subdivided due to sub-areas that are predominantly forested. These are listed, together with their area and the percentage of East Ayrshire they cover, in Table 1 and shown in the map in Figure 2.1. The

⁴ Land Use Consultants (1998) *Ayrshire Landscape Assessment. Scottish Natural Heritage Review No.111*

table also describes the current status and identifies significant trends in the key landscape character types.

The majority of East Ayrshire is upland or upland fringe in character, with lowland landscapes restricted to western areas and some valleys.

Table 1 - Status and Trends in Landscape Character Types in East Ayrshire

Landscape Character Type	Area (ha)	Area as % of EA	Status	Trend
Ayrshire Lowlands	33,205	26.14	Expansion of built up areas. Construction of M77 N of Kilmarnock. Major electricity OHL under construction.	Surface coal mine inquiry in South of area. Further urban expansion and transport infrastructure improvements likely.
Foothills	2,580	2.03	Consented windfarm in close proximity	Windfarm applications within and adjacent.
Foothills with Forest	11,475	9.03	Extensive surface coal mining operations at various stages including operational and unrestored sites. Major electricity OHL under construction. Reduction in forest cover.	Unrestored sites deteriorating. Further consents and applications for surface coal mines. Consented windfarm adjacent in South Ayrshire. Applications for windfarms within the LCT.
Inland Loch	1,195	0.94	Loch Doon and other lochs predominantly located in the Doon Valley SLCA. Minor views of operational windfarms 10km east and consented windfarm 5km west.	Glenmount windfarm application 1km west of Loch Doon. Other applications in hills to the east.
Intimate Pastoral Valley	5	0.004	These areas are very minor in nature within East Ayrshire – status and trend has not been assigned.	
Lowland River Valley	6,587	5.18	Location of significant urban development including Kilmarnock.	Expansion of built up areas.
Plateau Moorlands	24,672	19.42	Several unrestored and restored surface mines within or on boundary of areas. One operational. Windfarms consented in adjacent areas of South Lanarkshire.	Current sites deteriorating. Further windfarm development proposed within and adjacent to LCT.
Plateau Moorlands with Forest	12,333	9.71	Extensive windfarm development in Whitelee Forest with reduction in forest cover.	Further windfarm development proposed within and adjacent to LCT.
Rugged Granite Uplands	2,078	1.64	Located in the Doon Valley SLCA. Minor views of operational windfarms 12km east and consented windfarm 5km northwest.	Windfarm applications in adjacent areas.
Rugged Granite Uplands with Forest	2,134	1.68	Located in the Doon Valley SLCA. Minor views of operational windfarms 12km east and consented windfarm 5km northwest.	Windfarm applications in adjacent areas.
Rugged Upland Farmland	26	0.02	These areas are very minor in nature within East Ayrshire – status and trend has not been assigned.	
Southern Uplands	5,170	4.07	Restored surface coal site on North edge. Operational and consented windfarms within and adjacent	Extensive applications and inquiries for windfarms within and adjacent

Landscape Character Type	Area (ha)	Area as % of EA	Status	Trend
Southern Uplands with Forest	5,529	4.35	Extensive unrestored surface coal sites on North edge. Operational and consented windfarms adjacent to South. Major electricity substation under construction. Reduction in forest cover.	Extensive applications and inquiries for windfarms within and adjacent.
Upland Basin	3,858	3.04	Extensive surface mining operations at various stages including operational and unrestored. Operational windfarms on hills to the South.	Unrestored sites deteriorating. Further consents and applications for surface coal mines. Consent windfarms and further applications for windfarms in surrounding hills.
Upland Glen	1,493	1.18	Water treatment works in middle of LCA. Operational windfarms in surrounding hills.	Consented windfarm at Afton will extend onto West side and visually dominate.
Upland River Valley	13.7	0.01	These areas are very minor in nature within East Ayrshire – status and trend has not been assigned as these form part of wider systems which cross local authority boundaries.	
Upper Dale	4	0.003	These areas are very minor in nature within East Ayrshire – status and trend has not been assigned as these form part of wider systems which cross local authority boundaries.	
Upper River Valley	13,492	10.6	Several unrestored and restored surface coal mines within or on boundary of areas. Operational windfarms in adjacent areas to the North and East.	Current surface coal sites deteriorating. Inquiries/ applications for additional sites. Windfarms consented in adjacent areas of South Lanarkshire and South Ayrshire. Proposed windfarms adjacent.
Urban	1,179	0.93	These areas are very minor in nature within East Ayrshire – status and trend has not been assigned.	

2.3.2 Current Status and Trend in Landscape Character

Table 1 indicates the current status of the LCTs in East Ayrshire and the trends which affect current and future status. This indicates that the character of most of the upland LCTs is being affected by surface coal mining and windfarm development. The most significantly affected LCTs are the *Foothills with Forest*, *Plateau Moorlands with Forest*, *Upland Basin* and *Upper Valley*. The *Southern Uplands* and *Southern Uplands with Forest* are primarily affected by windfarm development. The distribution of surface coal sites is shown in Figure 2.2 and windfarms in Figure 2.3.

In all the above areas the trend is for a continued decline in the quality and integrity of landscape character due to unrestored surface coal sites and further applications for surface mining and significant windfarms.

2.3.3 Ayrshire Landscape Capacity Studies

The landscape capacity study for wind energy development (June 2018) in East Ayrshire⁵ has reviewed the SNH landscape character assessments. These take into account changes in character since the 1990's resulting from development and land use, as well as slightly simplifying the baseline for the purposes of the capacity studies. Key differences include:

⁵ Carol Anderson Landscape Associates (June 2018) *East Ayrshire Landscape Wind Capacity Study*

- Identification of the *Foothills with Forest* area northeast of Dalmellington as *Foothills with Forest and Surface Mining*
- Transfer of the Airds Moss Plateau Moorland area north of Auchinleck to the Maybole area of Ayrshire Lowlands
- Incorporation of a narrow strip of Plateau Moorland with Forestry east of New Cumnock into the larger Plateau Moorland area lying between New Cumnock and Muirkirk
- Amalgamation of several small landscape character areas into a *Rugged Granite Uplands with Lochs and Forest* landscape character area around Loch Doon

The first of these changes represents the effects on landscape character of change brought about by extensive surface coal mining. The other three changes are a desktop exercise related to a rationalisation of the SNH landscape types. All have an effect on how sensitivity to various forms of development (particularly wind energy) is assessed.

2.4 Landscape Designations

Landscape designations define particular areas of landscape with elevated scenic, recreational and/or cultural value. Such areas can be of local, national or international importance and are defined in statute or identified in development plans and other documents. Landscape designations within East Ayrshire are listed in Table 2 below and shown in Figure 2.4, with natural heritage and cultural designations related to landscape in Figure 2.5.

2.4.1 National Designations

There are no national landscape designations in East Ayrshire.

2.4.2 Local Designations

There are 3 locally designated landscape areas in East Ayrshire, named Sensitive Landscape Character Areas (SLCAs). They cover nearly 37% of the local authority area. All of these areas have been affected directly and/or indirectly by the changes associated with wind energy and surface coal mining.

2.4.3 Gardens and Designed Landscapes

Gardens and Designed landscapes (GDLs) of national importance, for historical, design or other reasons are recorded on a national inventory⁶, curated by Historic Environment Scotland. Detailed information is provided on the inventory, including descriptions. The key reasons for importance of the GDL are graded on a quality scale from 'little' to 'outstanding'.

There are 7 Gardens and Designed Landscapes located within East Ayrshire. It is noted in the EAC Main Issues Report⁷ that the number of designed landscapes in the Inventory increased by 4, from only 3 in 2003. Craigengillan, in the south near Loch Doon, is the largest and one of the few GDLs in Scotland to be graded 'outstanding' in all importance categories.

⁶ <http://www.historic-scotland.gov.uk/gardens>

⁷ East Ayrshire Council (2012) *East Ayrshire Local Development Plan: Main Issues Report. Monitoring Statement*

2.4.4 Current Status and Trend in Designated Landscapes

Table 2 below indicates the current status of landscape designations within East Ayrshire and the trends which affect current and future status. These are listed, together with their area and the percentage of East Ayrshire they cover, and shown in the map in Figure 2.4. The table also describes the current status and identifies significant trends in the key areas.

Table 2 - Status and Trends in Designated Landscapes in East Ayrshire

Designated Landscape	Area (ha)	Area as % of EA	Status	Trend
Doon Valley SLCA	14,173	11.16	Unrestored and restored surface coal sites adjacent and partially within North margins.	Unrestored sites deteriorating. Further inquiries/ applications for surface coal mine adjacent.
Southern Uplands SLCA	14,266	11.23	Unrestored and restored surface coal sites adjacent but not within.	Unrestored sites deteriorating. Further inquiries/ applications for opencast adjacent.
River Ayr SLCA	18,065	14.22	Unrestored and restored surface coal sites adjacent but not within.	Unrestored sites deteriorating. Further inquiries/ applications for surface coal adjacent.
Caprington Castle Garden & Designed Landscape (GDL)	60	0.05	Not near any mine or windfarm sites.	Not near any proposed mine or windfarm sites.
Craigengillan GDL	1,162	0.92	Graded 'outstanding' in all categories. Continuing improvement works to house and gardens. Adverse effects on views to North and East from unrestored surface mine.	Adverse effects on setting and viewpoints from consented Dersaloch windfarm. Potential adverse effects from Kiers Hill, Glenmount and South Kyle.
Dumfries Estate GDL	582	0.46	Potential views towards existing windfarms and surface sites to South and East.	Consented and proposed windfarms to South and East.
Lanfine GDL	209	0.16	Views North towards Whitelee windfarm developments	Further applications pending. Views of continuing expansion of windfarms to the North
Loudoun Castle GDL	407	0.32	Whitelee windfarm developments lies in same views North towards GDL	Further applications pending. Views of continuing expansion of windfarms to the North and East.
Rowallan GDL	81.26	0.06	Not near any mine or windfarm sites.	Not near any proposed mine or windfarm sites.
Skeldon House GDL	90.78	0.07	Not near any mine or windfarm sites.	Not near any proposed mine or windfarm sites.

This indicates that the character of most of the SLCAs is being affected by surface coaling and windfarm development. The effects of surface coaling are mainly indirect, principally on the fringes of the areas, although developments on the northern edge of the Doon Valley SLCA overlap the designation. The effects of windfarm development are both direct and indirect. The Southern Uplands SLCA is the most affected by windfarms, with the trend potentially continuing to affect it due to the number of applications, both within and adjacent. SNH has advised that, due to the effects of windfarms and mining, a review should be carried out on the status and extent of existing local landscape designations in East Ayrshire.

None of the GDLs are directly affected by the key trends. However some have views adversely affected by windfarms and/or surface coal mining, with the trend potentially continuing due to further applications and inquiries.

2.5 Other Relevant Landscape Issues

2.5.1 Wildness and Wild Land

Wildness is a specific quality in the landscape and the experience of landscape resulting from a feeling of closeness to nature, lack of human interventions and a feeling of solitude or sanctuary. Wild land is best defined as specific areas where the qualities of wildness are most extensively expressed.

Wild land in Scotland has been assessed by SNH in a process involving land use and other GIS data, statistical analysis and informed judgement⁸. 42 wild land areas (WLAs) have been defined across Scotland; most of these being in Highland areas. WLAs are highlighted by SPP and are given a high level of protection from development.

Wildness and wild land across Scotland is considered to be under threat from development pressures including windfarms and proliferation of hill tracks.

The areas of highest relative wildness in East Ayrshire correspond with the upland areas to the south and east of the local authority area. Within this area, the Merrick WLA, located mainly in Dumfries and Galloway, overlaps the southern tip of East Ayrshire (see Figure 2.6).

Within East Ayrshire the main effects on areas of higher wildness are from windfarms and surface coal mining located in upland and upland fringe areas. Expansion of surface coal mining affects wildness in *Plateau Moorland* areas to the east and operational windfarms affects the *Southern Uplands*. Further consented development and several planning applications for windfarms are located in or near these areas and would further reduce wildness. Effects on the Merrick WLA would mainly be from the recently consented Dersalloch windfarm and the proposed Glenmount windfarm in the southern part of the local authority area.

2.5.2 Green Networks

The Local Development Plan (2017) encourages the strengthening and linking of green space to create Green Networks in East Ayrshire. Green networks address sustainability through environmental, social and economic improvement and increased connectivity. The focus of the networks is within and around urban areas, although it is recognised that networks extend across boundaries into other local authority areas. The main trends affecting the potential for creating or improving Green Networks will be the expansion of built up areas and improvement of road infrastructure.

⁸ <http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/landscape-policy-and-guidance/wild-land/>

PRESSURES

Scotland's State of the Environment Report identifies a number of pressures on the landscape that apply across Scotland, in addition to the changes resulting from natural processes such as erosion.

3.1 Climate Change

Climate change is likely to affect the landscape in two main ways:

- The effects of changing temperature and rainfall on factors such as flooding, erosion, species distribution, habitats and crop growth.
- Responses to the threat of climate change including renewable energy projects.

3.2 Land Use and Development

The main direct pressures on the landscape caused by humans will continue to be:

- Land use and intensification of land use and management which includes changes in agricultural production and forestry.
- Incremental and ongoing development including infrastructure development, expansion of settlements, mineral extraction, energy production/ transmission and communications.

These generic pressures also apply to East Ayrshire. Based on current state and trends the key pressures on the landscape will continue to be from onshore wind energy and surface coal extraction. The pressures from wind energy are likely to be more active and potentially lead to more change in the short and medium term, as there are a significant number of applications and pre-applications in the planning system. The pressures from further mineral extraction developments are less certain. However, the pressures and potential adverse risks from unrestored and operating surface coal sites will remain for some time. This is discussed in more detail in the specific section on minerals below.

3.3 Renewable Energy / Windfarms

Of the available forms of renewable energy, onshore wind has caused the greatest recent landscape change in East Ayrshire and will continue to do so in the foreseeable future. The effects are currently less than that of surface coal mining in terms of area, but have the potential to increase significantly.

Currently the two main areas where existing schemes have an effect on the landscape are the *Plateau Moorlands with Forest* around the Whitelee windfarm cluster and the *Southern Uplands/ Southern Uplands with Forest*, where Hare Hill and Windy Standard windfarms are located. In the Whitelee area, with over 250 turbines across the plateau (not all in East Ayrshire), there are extensive tracts of landscape dominated by windfarms, which can be characterised as a *wind turbine landscape*, whereas the effects in the Southern Uplands are more limited in extent and intensity due to the smaller size and separation of the schemes; creating a *landscape with wind turbines*.

The consent of additional schemes (Sneddons Law, Windy Standard 2 and Afton) in both of these areas will lead to further expansion and intensification of landscape and visual effects in

these LCTs and peripheral effects on other LCTs such as the *Upland Basin* and *Upland Glen* LCTs adjacent to the Southern Uplands. The schemes located in the Southern Uplands directly and indirectly affect the local landscape designation (Southern Uplands SLCA). Dersalloch in South Ayrshire will affect *Foothills with Forest* LCTs in the south west of East Ayrshire and the setting of/ views from Craiggengillan GDL.

There are a significant number of further applications under consideration. These are mainly located in the upland areas within the east and south of the local authority area. There is particular pressure on the *Southern Uplands/ Southern Uplands with Forest* and *Plateau Moorlands/ Plateau Moorlands with Forest* LCTs. There are also applications in the *Foothills with Forest* and *Foothills* LCTs in the southwest. Were all the schemes in the *Southern Uplands/ with Forest* to be approved this would create an extensive *wind turbine landscape* in the hills between Glen Afton and Loch Doon, south of the upper Nith and Doon valleys. There would be increasing direct and indirect effects on local landscape designations including the Doon Valley and Southern Uplands SLCA and effects on the setting of/views from Craiggengillan GDL.

Current guidance for onshore wind comes from two sources: the 2017 supplementary guidance¹¹ and the 2018 wind capacity study¹². The more recent study is considerably more specific, providing detailed analysis of landscape sensitivities and guidance on the location of different sizes of wind turbine and scales of development. It takes a fairly conservative approach to landscape change relative to the current pressure for windfarm developments across Scotland.

The current large number of windfarm applications requires a carefully planned approach to be taken to wind energy development in East Ayrshire. In the light of SPP guidance on Spatial Frameworks and current landscape guidance by SNH, the Council will need to take a view on the level of acceptable future landscape change across the authority area:

- Areas where significant/ fundamental change is acceptable;
- Areas where some development can be accommodated within the capacity of the landscape; and
- Areas where landscape conservation is a priority.

The Council should also identify areas where the cumulative effects of existing/ consented schemes would limit the potential for further wind energy development.

3.4 Mineral Extraction

The three existing/ potential forms of resource extraction are surface coal, quarrying and unconventional gas extraction. Of these, surface coal extraction has had and will continue to have by far the greatest influence in the short to medium term at least. A detailed assessment of impacts is provided in section 5 below.

¹¹ East Ayrshire Council, Planning for Wind Energy (December 2017)

¹² Carol Anderson Landscape Associates (2018) *East Ayrshire Landscape Wind Capacity Study*

3.4.1 Surface Coal Mining

Whilst there is a decline in surface coal extraction, the areas currently affected by excavations remain extensive due to inadequate funds being in place for full restoration of sites that are no longer operational. The situation at December 2018 is as follows:

- 10 sites are un-restored; some of which are not currently managed and in a potentially unstable condition.
- 3 sites have been restored and are working through their aftercare schemes
- 3 sites have begun their restoration schemes.
- Remaining viable operations are ongoing at 1 complex at, House of Water.
- There are no new applications for new coal extraction sites.

The latest compliance monitoring report (December 2018) plan showing status of surface mines and quarries is provided as Figure 2.2¹³. This is updated on a quarterly basis. There is currently significant in-situ degradation of landscape fabric and character from operational and un-restored surface sites. Further risk of degradation remains from deterioration of existing un-restored sites that are currently under minimal management, although the deterioration is more of an environmental and safety matter than a landscape matter. Proposals are currently being formulated for restoration of un-restored former SCCL and Aardvark sites, although constraints on bond funding mean these are likely to be very limited in scope, addressing environmental and safety issues as a first priority.

Current trends indicate that there will be lower levels of surface coal extraction in the future. The low price of imported coal does not favour local sources and is likely to further depress demand.

Landscape impacts from surface coal mining are therefore likely to lessen in future, but not be substantially eliminated without significant further funding for restoration. Surface coaling is likely to remain a significant feature of the landscape in the currently affected areas.

3.4.2 Quarrying

Hard rock operations are not extensive in East Ayrshire. There are currently 4 operational quarries (Tincornhill, Garpel, North Drumbooy and The Meadows) and two sites under/completed restoration. There are operational sand and gravel sites at Garpel and The Meadows.

3.4.3 Unconventional Oil and Gas

There are currently no operations in East Ayrshire. The local geology indicates the potential for the presence of unconventional gas in the form of coal bed methane. Much of this would be relatively uneconomic to extract, although the 14th round of licensing shows some blocks

¹³ <http://docs.east-ayrshire.gov.uk/r/?f=http://docs.east-ayrshire.gov.uk/CRPADMMIN/2012%20AGENDAS/PLANNING%20COMMITTEE/23%20NOVEMBER%202018/compliance%20monitoring%20update%20-%20november%202018.pdf>

on offer in East Ayrshire. There is therefore currently no trend and a low future risk of landscape effects. Refer to Chapter 1 – Geology and Soils for more detailed review of geological potential for unconventional oil and gas exploration.

Should potential be identified for unconventional oil and gas extraction, applications should be subject to detailed environmental assessment, including LVIA. Landscape and visual effects would be mainly associated with above-ground infrastructure including compounds and access.

CONCLUSIONS

4.1 Conclusions

The foregoing assessment has identified the key landscape receptors and indicators of change in East Ayrshire and the main agents that are causing change and may cause change in the future. Whilst there are many generic trends that reflect those across Scotland as a whole, the main forces for change in East Ayrshire are mineral/ resource extraction and the harnessing and transmission of renewable energy.

MINERALS - LANDSCAPE EFFECTS ASSOCIATED WITH MINERALS OPERATIONS

5.1 Summary

Of all activities and changes, the extraction of surface coal has had the most profound effect on the landscape of East Ayrshire. The following section looks further into the subject.

Whilst current economic trends indicate a gradual slowdown in the extraction of coal across Scotland over the past 10 years, with a particularly sharp drop between 2012 and 2013 associated with the demise of Scottish Coal. The level of decline of extraction of coal in East Ayrshire has been less steep than for Scotland as a whole (see the Executive Summary and Chapter 10 Material Assets of this report).

5.2 Detailed Review of Landscape Impacts from Minerals Extraction In East Ayrshire

As illustrated in Figure 2.2, surface coal mining in East Ayrshire was extensive. There were 68 sites or potential sites recorded. Currently, 5 sites are operational and 13 fully restored and 3 in aftercare (December 2018). However, since the 2013 demise of SSCL and Aardvark TMC, 22 sites were left un-restored with minimal management in place and inadequate bond monies for environmental management and/or restoration. This has left a legacy of landscape degradation affecting in particular the *Foothills with Forestry* LCA between Patna and New Cumnock and along the *Upper River Valley* of the River Ayr. This includes:

- Significant areas of deep voids, many filling with water, which disrupt existing topography and landscape/ vegetation patterns;
- Unrestored mounds of overburden which conflict with natural landforms, are often un-vegetated and are often prominent skyline features affecting adjacent valley landscapes and views from surrounding hilltops;
- Significant areas of dereliction and pollution with more localised adverse effects on the landscape and views.

Inspection of remaining operational sites by independent reviewers¹⁴ indicated operations were being carried out in good order, and in 2014 the Kier sites were restored following completion of extraction. Hive Cos. set up by Hargreaves operated 3 sites which were considered economically viable to operate, including provision for a basic restoration. Sites typically with limited remaining resource and/or significant safety and environmental problems have been disclaimed by the liquidator and are not under any form of management (Dunstonhill, Powharnal/Dalfad and Ponesk/ Spireslack) – these sites are in ownership of the Mines Restoration Trust (MRL) who are undertaking the restoration works. The sites formerly owned by ATH Resources Ltd (Garleffan, Grievehill and Skares Area D) which liquidators have sought to disclaim are being contested by East Ayrshire Council.

Steps to Recovery¹⁵

This 2013 report by the Chief Executive of East Ayrshire Council responds to the situation following the demise of SCCL and Aardvark TMC. It reviews the key legal, land, financial, safety and environmental issues and makes recommendations for the future management of

¹⁴ Jim McKinnon, Chris Norman & James Fowlie (Jan 2014) *Report of Independent Review of Opencast Coal Operations in East Ayrshire*

¹⁵ East Ayrshire Council (19 SEPTEMBER 2013) *Opencast Mining in East Ayrshire - Steps to Recovery Report by Chief Executive and 'The Past, Present and Future' 26th June 2014.*

existing, un-restored and future proposed surface coal sites. The report highlights in some detail the significant shortfall in restoration bond monies for most of the sites in East Ayrshire.

Steps to Recovery seeks to address the legacy of un-restored sites through the pooling of available resources: including existing bond monies, potential contributions from other sources including government, agencies etc and provision of expertise. The Council will also enforce adequate planning for new surface mining developments. These will be subject to independent compliance monitoring, including strict agreements on adequate restoration proposals and bonds.

5.3 Review of Potential Landscape Impacts from Mineral Extraction

Mineral extraction, both during operation and after completion/ restoration, has the potential to affect the landscape resource in three main ways:

- Physical changes in the fabric of the landscape, including change to landform, loss of landscape elements and features (e.g. soils, vegetation, manmade structures, notable features etc) and introduction of new elements and features (excavation voids, spoil tips, access roads and vehicle activity);
- Changes to landscape character caused by the direct physical changes and secondary changes resulting from drainage changes, noise, dust etc; and
- Changes to views and visual amenity resulting from changes to landscape fabric and character.

It should be stressed that many, although not all, changes associated with mineral extraction are temporary and some are largely reversible, assuming proper planning and provision is made for restoration:

- Surface coal mining sites are usually the most temporary in nature, being shorter term and with relatively lower proportion of material removed from site. Much of the overburden and soil material can be replaced and the site restored to a relatively similar or, potentially improved, appearance;
- Hard rock quarries tend to be longer term operations, and with the majority of material permanently removed from site, leaving a permanently changed landform but nevertheless with potential to create a relatively naturalistic landscape feature; and
- Unconventional gas extraction sites have relatively small scale landscape effects, resulting from tracked access, creation of a compound, installation of a rig and associated equipment and vehicles. The site may be in place for a number of years before decommissioning. If a significant number of individual compounds and rigs are grouped over an area, the landscape effects can be significant for the period of operation. Once the rigs are removed and compound and access restored, there are unlikely to be significant permanent landscape consequences.

Changes to a particular baseline may be adverse, beneficial or neutral depending on the state of the baseline and direction of trends such as new consents, continuing operations or restoration of sites.

5.4 Management and Mitigation

All consents for minerals operations in Scotland are accompanied by conditions concerning the management and mitigation of operational effects on the environment, including the landscape, as well as the eventual restoration of sites to an acceptable condition following the completion of operations. This is enshrined in Local Development Plans, minerals subject plans and good practice guidelines. Minerals sites are also subject to the provision of adequate bond monies should the operator go out of business, leaving a site unrestored mid-way through extraction.

Historically this has not generally been the case in East Ayrshire, with many surface mine sites left derelict and unrestored following the demise of the two mining companies and insufficient bond monies in place for restoration. However, since the demise action has been taken to renew bonds and new consents are subject to revised arrangements to ensure this does not happen in the future.

East Ayrshire Opencast Coal Subject Plan (EAOCSPP)¹⁶

The 2003 EAOCSPP addresses all stages of surface coal extraction and restoration in detail and directs operators to Potential Coal Extraction Areas where resources are located but balanced by the need to minimise environmental impacts.

The EAOCSPP highlights the diversity and landscape quality of East Ayrshire and the need to protect certain areas underlain by reserves from surface coal mine development. In particular the Ayrshire Lowlands and Lowland River Valleys, together with the Upland River Valley of the Irvine around Darvel and Newmilns, are highlighted as areas to be protected from surface coal exploitation. Whilst the open and undeveloped Plateau Moorlands are also highlighted it is recognised that some parts of these have already been affected by mining and, due to lack of information on the extents of affected and unaffected areas, the policy does not define the extent of moorlands to be protected. For less sensitive landscapes it is suggested that restoration following surface mine extraction could lead to net improvements in landscape character.

The plan also identifies areas of high visual sensitivity/quality important to visual amenity, tourism and recreation. This includes routes into and across East Ayrshire:

- The Irvine valley and A71 corridor
- The Doon Valley and A713 national tourist route
- Loch Doon and its surrounding hills
- The Glenmuir Valley east of Lugar and Logan
- The A76 and A70 corridors which have expansive views

The plan discourages exploitation of areas which would affect these key corridors and also promotes general good practice in minimising visual effects in proximity to any route used by the travelling public.

¹⁶ East Ayrshire Council (2003) *East Ayrshire Opencast Coal Subject Plan*

East Ayrshire Minerals Local Development Plan: Proposed Plan

The Minerals Local Development Plan: Proposed Plan takes a comprehensive approach to minerals extraction and restoration. The Proposed Plan does not simply focus on mineral extraction; it places restoration at the heart of its vision and aims to address the legacy of unrestored land as a result of the collapse of SCCL Limited and ATH Resources Ltd. It seeks to provide a robust framework for the assessment of any new proposal to ensure that any new extraction and restoration is carried out. The Plan is broken down into 8 chapters:

- **Introduction**- setting out when and how the Plan should be used
- **Vision**- the vision sets out how the Council would like to see the Minerals sector develop in the next 20 years. The focus is firmly on restoration and regeneration, whilst also acknowledging that East Ayrshire must still meet any demonstrated demand for minerals extraction.
- **Aims**- the 8 aims of the Proposed Plan focus on the restoration of previously worked sites and on ensuring the local environment and communities are not harmed by, but can benefit from, the minerals sector.
- **Spatial Strategy**- the spatial strategy of the Proposed Plan has 5 separate but interlinked strands; (i) restoration and placemaking; (ii) surface coal extraction; (iii) unconventional oil and gas, underground coal gasification and carbon dioxide sequestration; (iv) aggregates; and (v) woodland creation. The spatial strategy is underpinned by an overarching policy that will be relevant to all minerals related development proposals.
- **Conserving and enhancing the natural and built environment**- provides policy protection for peat, soils, water, nature conservation, landscape and geology.
- **Minimising the negative impact of minerals extraction on people**- outlines policies that are intended to ensure that communities and individual dwellings are protected from any significant adverse impacts of minerals operations. The chapter also includes policies and guidance for ensuring that communities and the local economy benefit from any minerals proposals.
- **Transportation of Minerals**- acknowledges that the transportation of minerals is an inherent requirement of the minerals industry and one that can cause disruption to local communities. The policies aim to put in place a managed approach to transportation and one that minimises local impacts.
- **Ensuring an adequate and steady supply of minerals**- aims to expand on the spatial strategy, delivering policies which promote extraction and support the use of secondary and recycled aggregates.
- **Promoting and delivering excellence in working practices**- within the remit of planning, this section contains policies for monitoring and working practices.

The Proposed Plan is currently at Examination where an appointed Reporter will consider all unresolved representations to the Proposed Plan. All information about the Examination including the Schedule 4 forms, further information requests, further information responses, any hearing or inquiry statements and, in due course, the Examination Report can be viewed on the DPEA website (<http://www.dpea.scotland.gov.uk/CaseDetails.aspx?id=120172>).

The Council hopes to adopt the Minerals Local Development Plan at the end of 2019.

5.5 Conclusion - Landscape Impacts and Minerals / Unconventional Gas

Mineral extraction through surface coaling or quarrying has and could continue to contribute to landscape changes in East Ayrshire. The impact of these changes largely rests on the following factors:

- Location of the site in relation to sensitive and designated landscapes, or landscapes where there are existing pressures from other developments e.g. cumulative impacts
- Ability of site design to address potential landscape and visual impacts e.g. direction of extraction / landscape bunds / advanced planting; and
- Quality of the landscape restoration proposals and how well these are implemented and monitored through appropriate use of financial controls / bonds.

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Council of Europe (2000) <i>European Landscape Convention</i> , Strasbourg: Council of Europe	http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/default_en.asp	March 2019
Critchlow-Watton, N., Dobbie, K.E., Bell, R., Campbell, S.D.G., Hinze, D., Motion, A., Robertson, K., Russell, M., Simpson, J., Thomson, D. and Towers, W. (eds) (2014) <i>Scotland's State of the Environment Report, 2014</i> . Scotland's Environment Web.	https://www.environment.gov.scot/our-environment/state-of-the-environment/2014-state-of-the-environment-report/	March 2019
East Ayrshire Council (2003) <i>East Ayrshire Opencast Coal Subject Plan</i>	https://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Development-plans/Planning-LongTermAndAreaPolicies/LocalPlan-Minerals/OpencastCoalSubjectPlan.aspx	March 2019
East Ayrshire Council (2018) <i>East Ayrshire Minerals Local Development Plan: Proposed Plan</i>	https://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Development-plans/LocalAndStatutoryDevelopmentPlans/East-Ayrshire-Minerals-Local-Development-Plan.aspx	March 2019
East Ayrshire Council (2012) <i>East Ayrshire Local Development Plan: Main Issues Report. Monitoring Statement</i>	http://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Development-plans/DevelopmentPlans.aspx	March 2015
East Ayrshire Council (2012) <i>East Ayrshire Local Development Plan: Main Issues Report</i>	https://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Development-plans/LocalAndStatutoryDevelopmentPlans/MainIssuesReport.aspx	March 2019
East Ayrshire Council (2010) <i>East Ayrshire Local Plan</i>	https://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Development-plans/LocalAndStatutoryDevelopmentPlans/LocalPlan2010.aspx	March 2019

<p>East Ayrshire Council (19 September 2013) Opencast Mining in East Ayrshire - Steps to Recovery Report by Chief Executive</p>	<p>http://www.east-ayrshire.gov.uk/CouncilAndGovernment/About-the-Council/MinutesAgendasAndReports/OpencastCoalUpdate.aspx</p>	<p>March 2019</p>
<p>Jim McKinnon, Chris Norman & James Fowlie (Jan 2014) <i>Report of Independent Review of Opencast Coal Operations in East Ayrshire</i></p>	<p>http://www.east-ayrshire.gov.uk/CouncilAndGovernment/About-the-Council/MinutesAgendasAndReports/OpencastCoalUpdate.aspx</p>	<p>March 2019</p>
<p>Land Use Consultants (1998) <i>Ayrshire Landscape Character Assessment. Scottish Natural Heritage Review, No.111</i></p>	<p>https://www.nature.scot/snh-review-111-ayrshire-landscape-character-assessment</p>	<p>March 2019</p>
<p>Landscape Institute and IEMA (2013) <i>Guidelines for Landscape and Visual Impact Assessment, Third Edition</i></p>	<p>https://www.landscapeinstitute.org/technical/glvia3-panel/</p>	<p>March 2019</p>
<p>East Ayrshire Council Quarterly Monitoring Report</p>	<p>https://www.east-ayrshire.gov.uk/PlanningAndTheEnvironment/Minerals,%20Waste%20and%20Onshore%20Wind%20Site%20Monitoring%20Reports/Quarterly-Compliance-Monitoring.aspx</p>	<p>December 2018</p>

GLOSSARY OF KEY TERMS

Climate Change - world-wide, long term change in weather patterns and/or average temperatures of the planet caused by human activity

Garden and Designed Landscape - Sites included in the Inventory of Gardens and Designed Landscapes have national significance for historical, design or other reasons

Landscape Character Assessment (LCA) - standard methodology for identifying, describing, classifying and mapping what is distinctive about our landscapes

Landscape Character Types (LCT) – Distinct types of landscape which are generic in character in that they may occur in different parts of the country, but wherever they are they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern

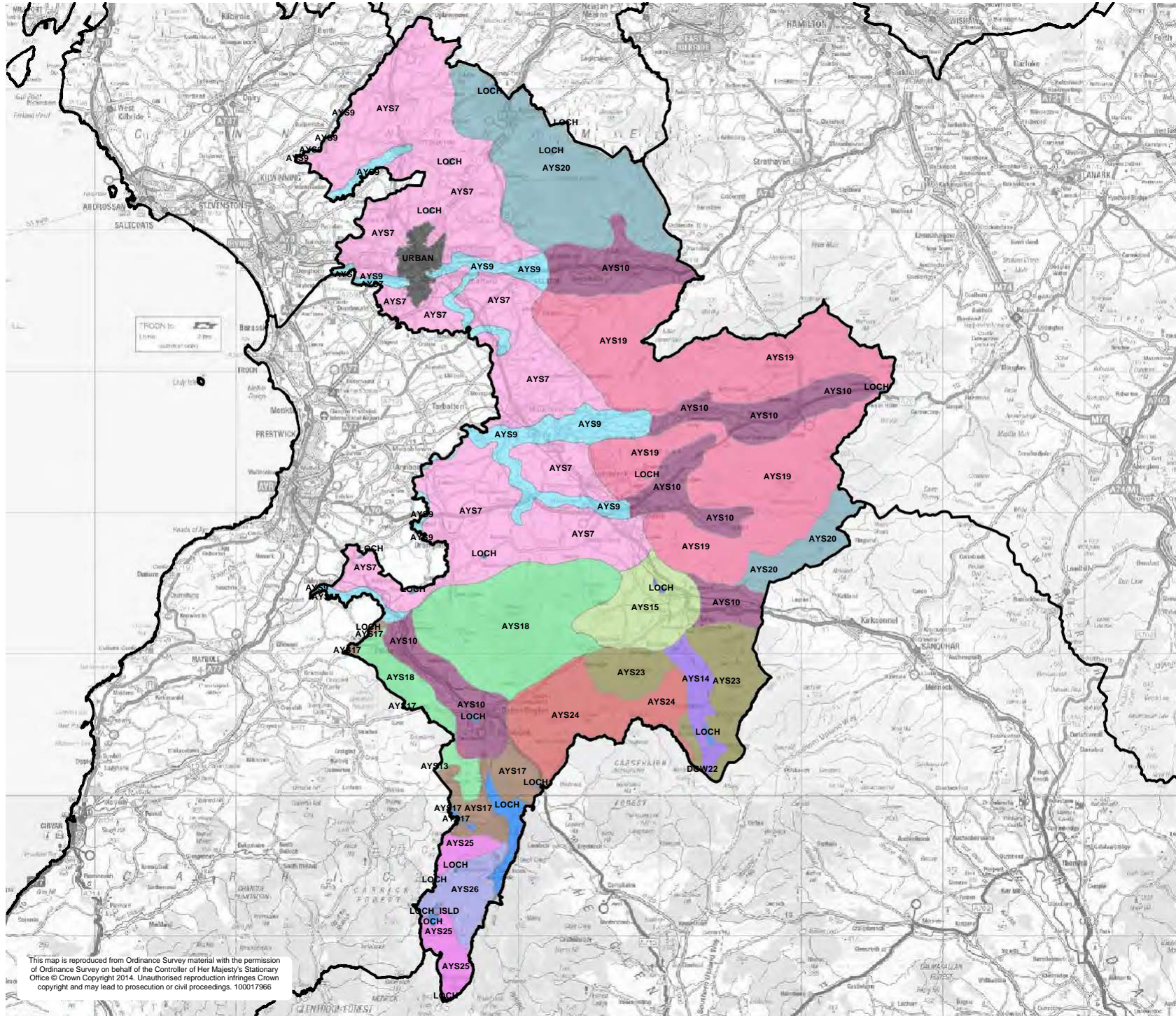
Landscape and Visual Impact Assessment (LVIA) – assessment of the effects of change on the landscape

Sensitive Landscape Character Areas (SLCA's) – local landscape designations which ensure that the important qualities and characteristics of the landscape in East Ayrshire are safeguarded

Unconventional Oil and Gas - The term unconventional gas refers to natural gas held in rocks that cannot be exploited using traditional methods. Shale and coal are source rocks for unconventional gas.

Wild Land - Extensive areas where wildness is best expressed.

Wildness - A quality of the landscape, usually due to natural character, remoteness, or lack of obvious human influence, experienced by people through such values as feeling close to nature and experiencing a sense of solitude.



Legend

Scottish Local Authority Boundaries

CODE, LANDSCAPE

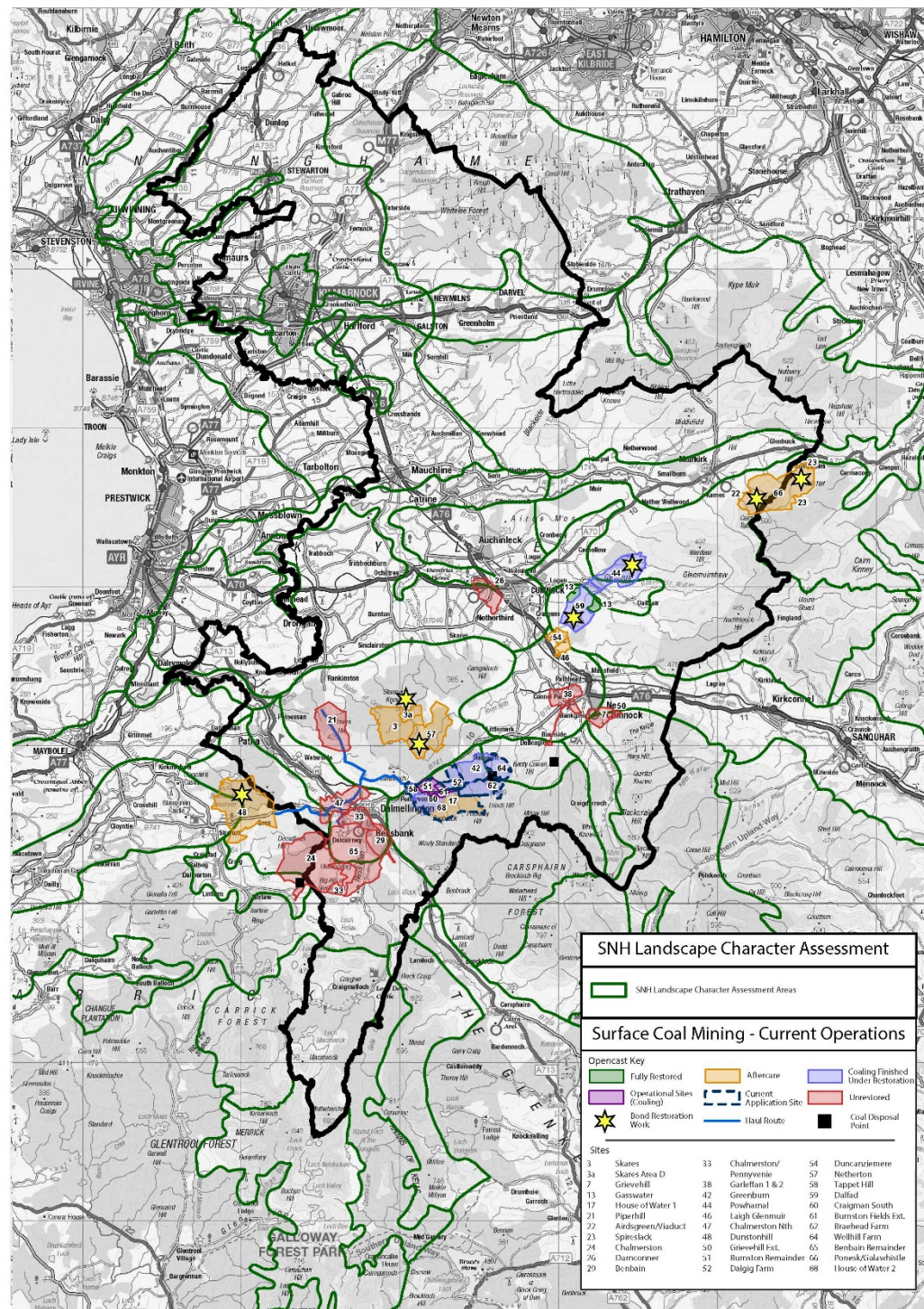
- AYS10, Upper River Valleys
- AYS13, Intimate Pastoral Valleys
- AYS14, Upland Glen
- AYS15, Upland Basin
- AYS17, Foothills
- AYS18, Foothills With Forest
- AYS19, Plateau Moorland
- AYS20, Plateau Moorland with Forest
- AYS23, Southern Uplands
- AYS24, Southern Uplands with Forest
- AYS25, Rugged Granite Uplands
- AYS26, Rugged Granite Upland with Forest
- AYS7, Ayrshire Lowlands
- AYS9, Lowland River Valleys
- DGW22, Southern Uplands
- LOCH, Inland Loch
- LOCH_ISLD, Loch Island
- URBAN, Urban

Landscape Character Areas	Code	Area (Ha)	%
Ayrshire Lowlands	AYS7	33205.216	26.260
Foothills	AYS17	2570.014	2.032
Foothills With Forest	AYS18	11475.210	9.075
Inland Loch	LOCH	1195.747	0.946
Intimate Pastoral Valleys	AYS13	4.504	0.004
Inland Loch	LOCH_ISLD	2.968	0.002
Lowland River Valleys	AYS9	6587.270	5.210
Plateau Moorland	AYS19	24257.780	19.184
Plateau Moorland with Forest	AYS20	12333.022	9.754
Rugged Granite Upland with Forest	AYS26	2096.451	1.658
Rugged Granite Uplands	AYS25	2063.230	1.632
Southern Uplands	AYS23	3420.559	2.705
Southern Uplands	DGW22	4.105	0.003
Southern Uplands	AYS23	1724.164	1.364
Southern Uplands with Forest	AYS24	5484.361	4.337
Upland Basin	AYS15	3857.568	3.051
Upland Glen	AYS14	1493.397	1.181
Upper River Valleys	AYS10	13492.339	10.670
Urban	URBAN	1178.774	0.932
Total:		126446.680	100.000



Figure 2.1
Landscape Character Areas

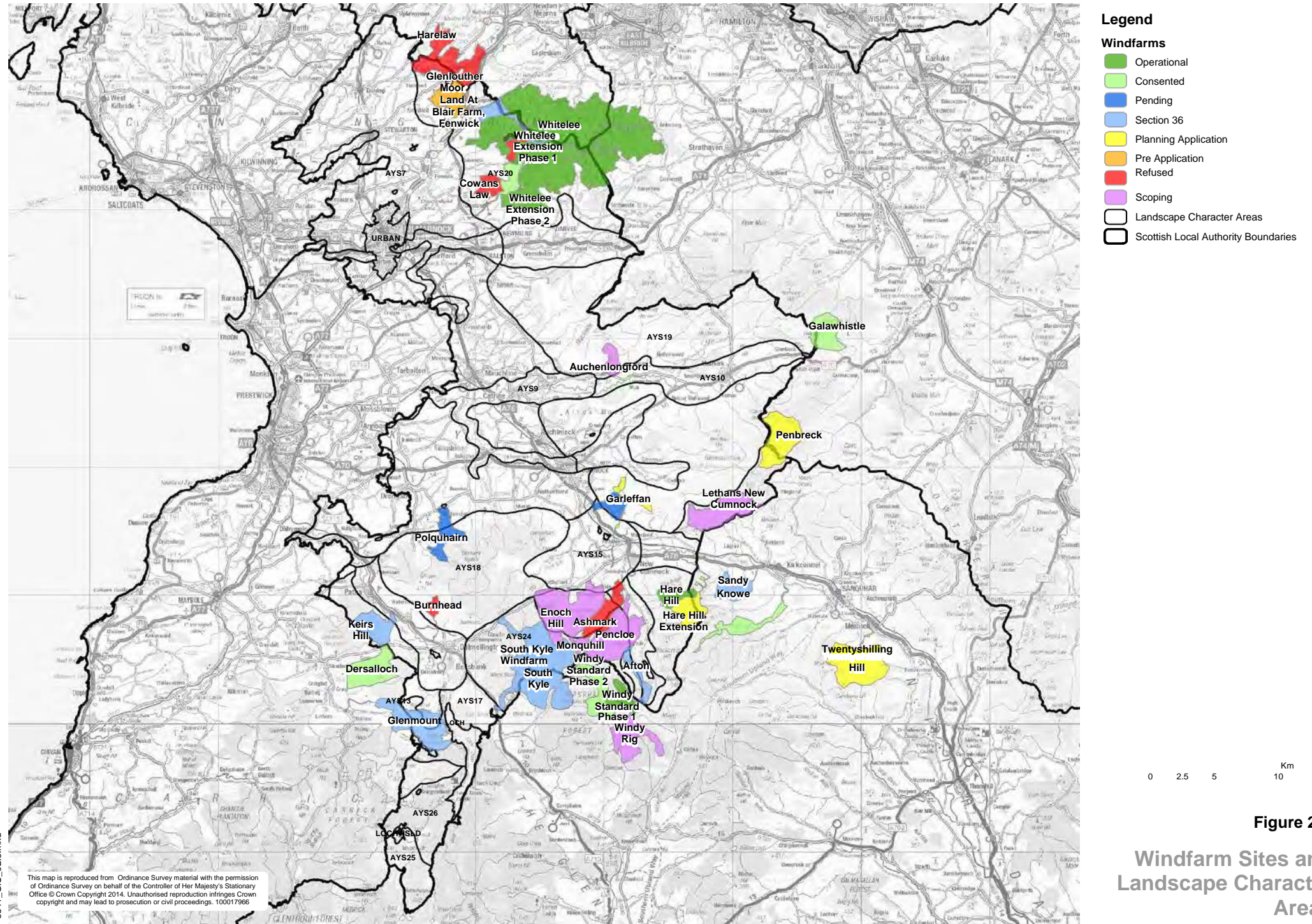
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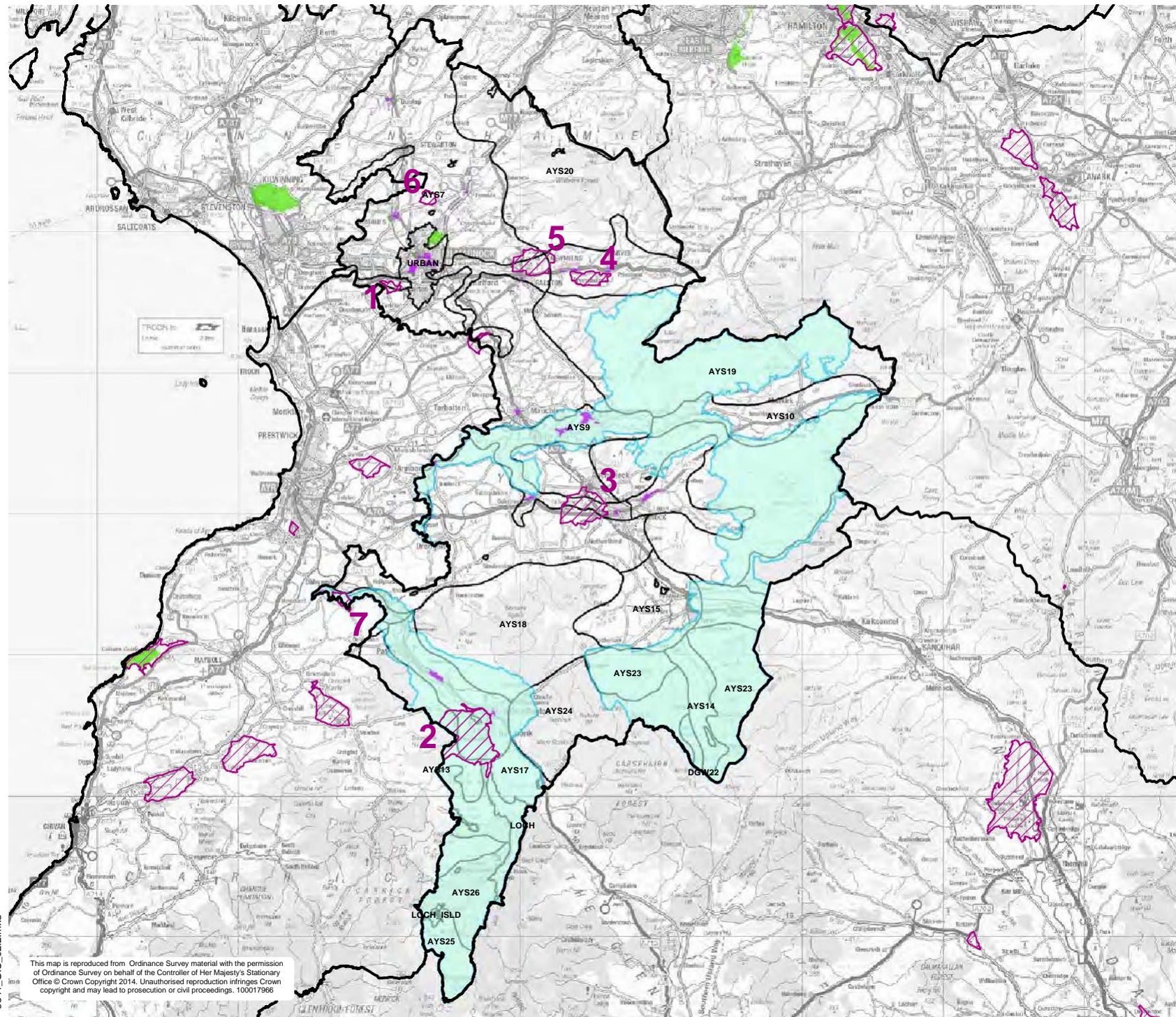


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Figure 2.2

Opencast Mine Sites and Landscape Character Areas





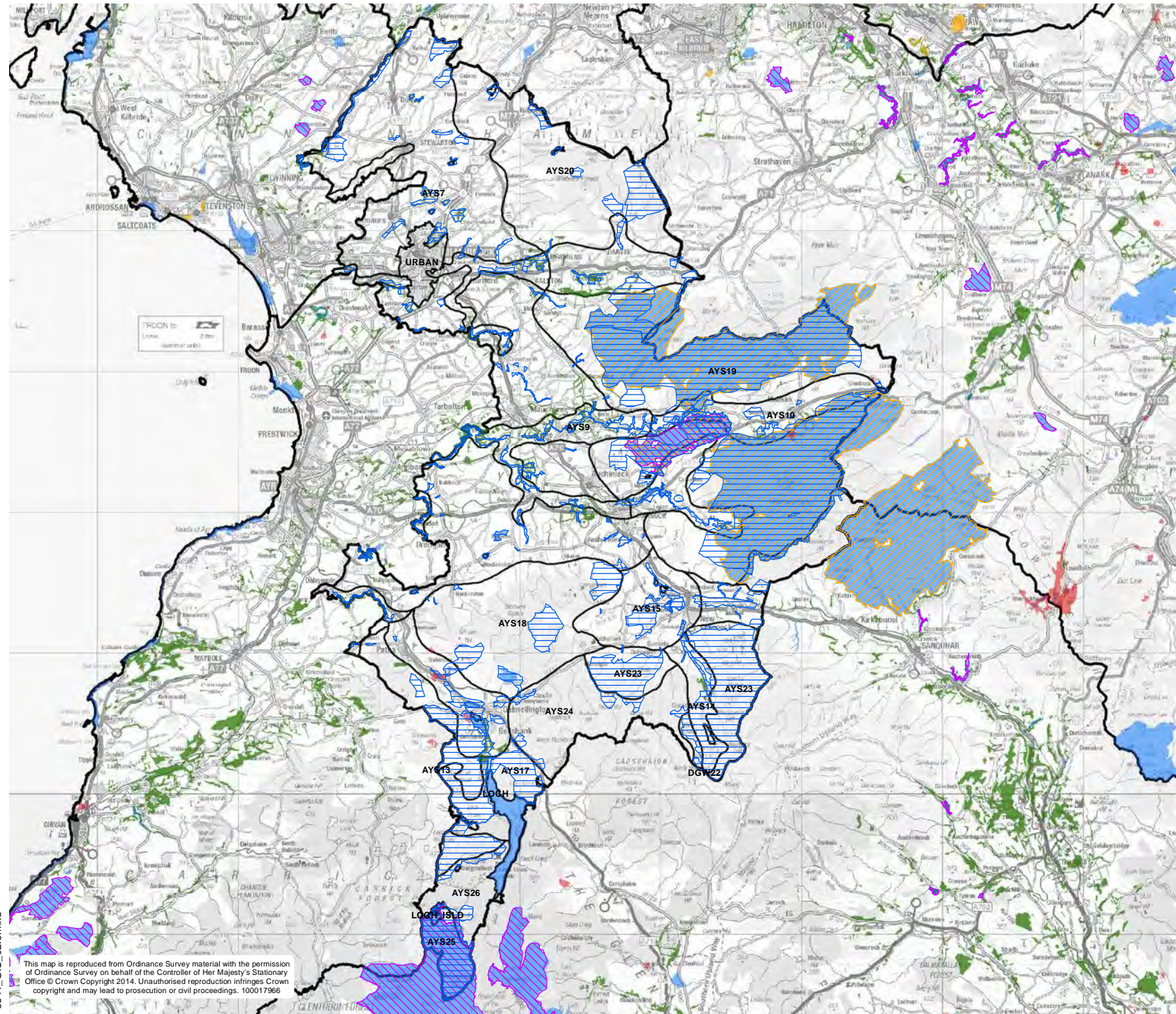
Legend

- Scottish Local Authority Boundaries
- Gardens and Designed Landscapes
- Conservation Areas
- Country Parks
- Sensitive Landscape Character Area
- Landscape Character Areas

SLCA's			
Ref	Name	Area (Ha)	% of EAC
1	Doon Valley	14172.970	11.157
2	Southern Uplands	14266.982	11.231
3	River Ayr	18065.195	14.221
GDL's			
Ref	Name	Area (Ha)	% of EAC
1	Caprington Castle	60.166	0.047
2	Craigengillan	1161.987	0.915
3	Dumfries Castle	581.675	0.458
4	Lanfine	208.687	0.164
5	Louden Castle	407.203	0.321
6	Rowallan	81.256	0.064
7	Skeldon House	90.776	0.071



Figure 2.4
Landscape Designations
and Landscape
Character Areas



Legend

-  Provisional Wildlife Sites
-  Special Areas of Conservation
-  Special Protection Areas
-  Local Nature Reserves
-  Scheduled Ancient Monuments
-  Sites of Special Scientific Interest
-  Ancient Woodland Inventory
-  Landscape Character Areas
-  Scottish Local Authority Boundaries

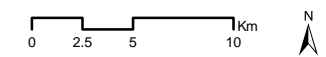


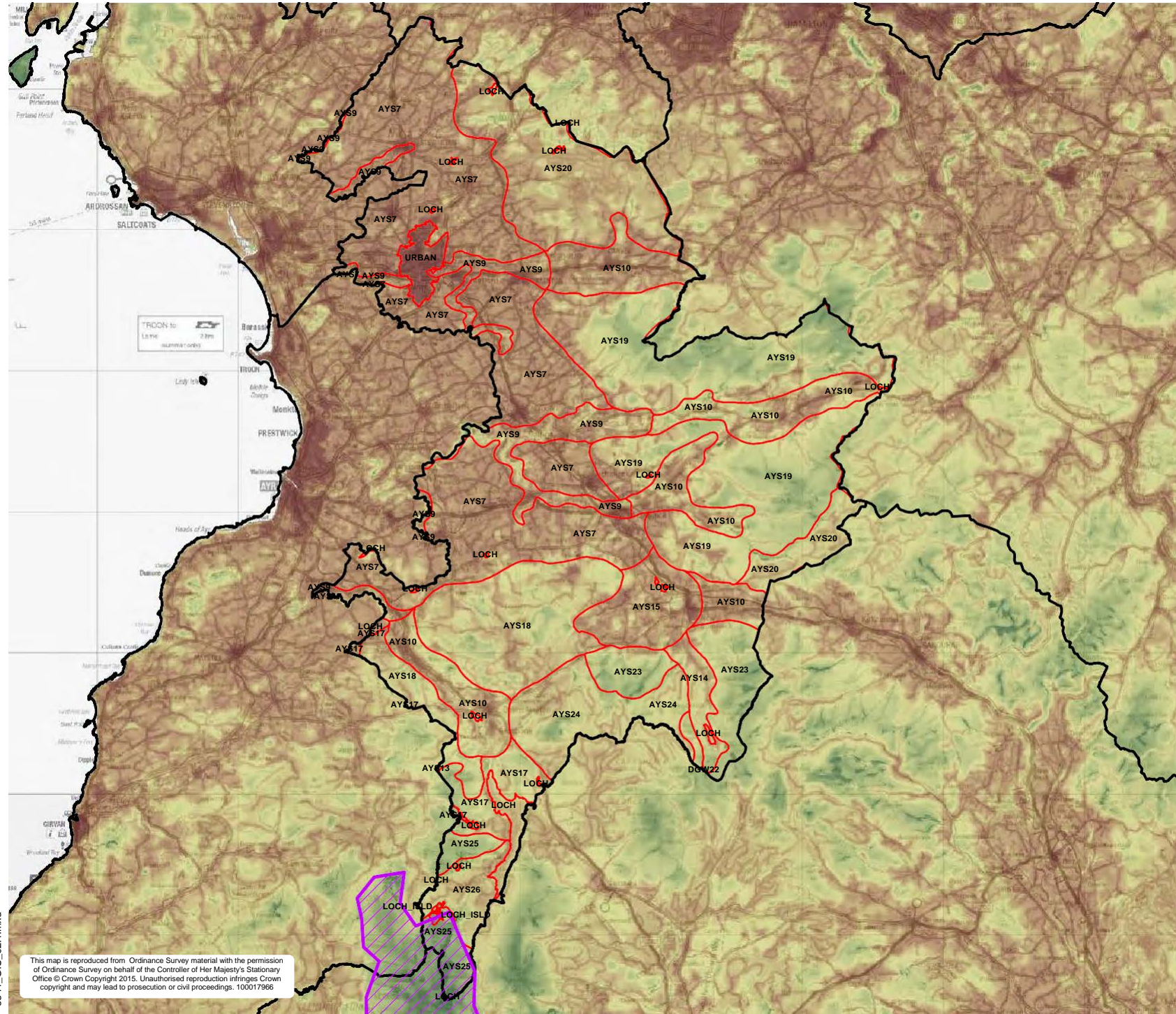
Figure 2.5

Natural & Other Cultural Designations

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Ironside Farrar



Legend

- Merrick Wild Land Area
- Scottish Local Authority Boundaries
- Landscape Character Areas

2014 Relative wildness Value

- High : 256
- Low : 1

Landscape Character Areas	Code	Area (Ha)	%
Ayrshire Lowlands	AYS7	33205.216	26.260
Foot hills	AYS17	2570.014	2.032
Foot hills With Forest	AYS18	11475.210	9.075
Inland Loch	LOCH	1195.747	0.946
Intimate Pastoral Valleys	AYS13	4.504	0.004
Loch Island	LOCH_ISLD	2.968	0.002
Lowland River Valleys	AYS9	6587.270	5.210
Plateau Moorland	AYS19	24257.780	19.184
Plateau Moorland with Forest	AYS20	12333.022	9.754
Rugged Granite Upland with Forest	AYS26	2096.451	1.658
Rugged Granite Uplands	AYS25	2063.230	1.632
Southern Uplands	AYS23	3420.559	2.705
Southern Uplands	DGW22	4.105	0.003
Southern Uplands	AYS23	1724.164	1.364
Southern Uplands with Forest	AYS24	5484.361	4.337
Upland Basin	AYS15	3857.568	3.051
Upland Glen	AYS14	1493.397	1.181
Upper River Valleys	AYS10	13492.339	10.670
Urban	URBAN	1178.774	0.932
Total:		126446.680	100.000



Figure 2.6
Relative Wildness and Wild Land Areas

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