



The state of Cumbernauld

Living Landscape

Indicators

2016

Purpose of this report

This report sets out the current state of the landscape in Cumbernauld. It brings together a range of data to present a baseline for future change. The Cumbernauld Living Landscape principles and objectives are set out and indicators to measure progress are proposed.



The data

The information presented here comes from a wide range of both direct and indirect sources. Where possible the most up-to-date data has been sourced. This reports contains information derived from the EcoServ GIS project .

Our vision

The Cumbernauld Living Landscape is a long term vision to facilitate a transformational change to the town's environment. The project aims to reinforce and expand existing green and blue networks and reconnect the people of Cumbernauld to their natural environment. By engaging a wide range of stakeholders, the Living Landscape will work to benefit local people and wildlife and support the evolving regional economy.

What will our vision look like?

- There are well used green/blue networks that communities use, value and take responsibility for
- Environmental quality and ecosystem function is improved (especially in deprived areas) meaning that there are healthy sustainable woodlands and diverse greenspaces where they are needed most
- The green network ethos of the Living Landscape is being used by other stakeholders in their decision making and actions to improve biodiversity are integrated at multiple scales
- The networks are valued for their natural capital value and ecosystem services and continue to attract investment into the future
- The profile of Cumbernauld's Greenspaces is raised and they are seen as exemplar demonstration sites for the management of urban greenspaces
- Cumbernauld is recognised for its green assets rather than its concrete legacy and is leading the way in providing Scotland's Natural Health Service

The Living Landscape is delivered by the following programme leaders working with a wide range of community partners:



Principles and objectives

Cumbernauld Living Landscape aims to enhance, restore and reconnect green areas of the town. Over 50% of Cumbernauld's town centre is made up of green spaces: parks, woodlands and gardens. However, these areas are often disconnected from one another and many are not as good for people – or wildlife – as they should be. This will be achieved through the following principles and objectives.

Principle 1: Create and maintain a high quality natural environment for wildlife to flourish and people to enjoy

- Restore, recreate and reconnect wildlife habitats
- Improve water quality within the network of rivers, streams and lochs
- Protect and enhance carbon stores

Principle 2: Re-connect people to their natural environment and link the network of greenspaces in Cumbernauld

- Support communities to grow more food
- Provide volunteer opportunities for people to take action to improve their environment
- Engage communities to raise awareness of the local environment and inspire them to take action
- Improve accessibility to natural areas and encourage active travel

Principle 3: Promote Cumbernauld as a good place to live, work and do business due to the quality of its greenspaces

- Support the local economy by improving skills and employability through land management
- Work with farmers/ land owners to improve ecosystem health and sustainable land management
- Support Planning & Heritage to deliver developments that are healthy places for people and wildlife

Principle 1

Create and maintain a high quality natural environment for wildlife to flourish and people to enjoy



Objective 1: Restore, recreate and reconnect wildlife habitats

Outcomes

- Cumbernauld is a place of diverse, connected and healthy ecosystems
- Cumbernauld's woodlands are supporting greater areas of native woodland flora
- Peatland areas are recovering
- Cumbernauld's wetlands support wildlife and hydrological functions

Actions/practical measures

- Plant trees to reconnect wildlife habitats
- Manage 940 ha of woodland to restore wildlife habitats
- Remove non-native plant species to restore natural habitats
- Re-wet peat bogs to recreate peatland habitats
- Build ponds to create wetland habitats

Indicator: The proportion of semi natural woodland to all woodland cover

Why is this important?

As the former climax vegetation community over much of Scotland, woodland and scrub supports more species than any other terrestrial habitat. Semi natural woodlands have a significant role to play in providing quality habitat for wildlife. They contribute widely to habitat networks and ecosystem services such as water flow regulation, water quality, carbon storage and soil conservation.

What will influence this indicator?

We aim to increase the proportion of native woodland cover. This will be influenced by opportunities to create new native woodland and replace non-native woods. The loss of native woodland to development will have a negative impact.

How do we measure this?

Semi natural woodland is identified from datasets compiled into the EcoServ GIS basemap 2014.

How are we performing?

23% (251ha) of the total woodland cover (1,088ha) in Cumbernauld Living Landscape is semi natural woodland.

Indicator: The overall area and average size of natural habitat networks

Why is this important?

The contribution that habitat networks make to our physical environment is immense. A long history of intensive land-use in Central Scotland has resulted in the loss and fragmentation of natural habitats leading to a reduction in biodiversity. The Living Landscape aims to reverse the effects of fragmentation by improving connectivity and habitat quality.

What will influence this indicator?

We want to increase the area that the network covers and average network size. This indicator will be influenced by the conservation objectives of land management organisations and land owners. Opportunities to reconnect the networks will need to be realised through woodland creation and management.

How do measure this?

This can be estimated using the Integrated Habitat Network (IHN) network model. The 2011 CSGN network data was analysed within the Living Landscape boundary and the number and size of the distinct core networks recorded after applying a moderate dispersal model (300m). The core habitat size, distance and landscape permeability values have been used to model the networks.

How are we performing?

In 2011 Cumbernauld has a total coverage of 1443.8 ha of core habitat network with a moderate dispersal, approximately 24% of the Cumbernauld Living Landscape area. The table below shows the type, the number, area and average patch size for these habitat networks within the Cumbernauld Living Landscape area. This shows that despite the large area of woodland in Cumbernauld much of it is fragmented and does not form part of the core woodland network.

Core network	Number	Total size ha	Average size ha
Woodland (broadleaf) (> 5ha)	9	386	42.9
Acid grassland (>1ha)	24	786	32.77
Heathland (>1ha)	3	192.4	64.14
Wetland core (>0.02ha)	9	79.4	8.8
Neutral grassland (>1ha)	-	-	-

Pine marten returns

“Woodland habitat network connections have facilitated the return of the pine marten to Cumbernauld”

Indicator: The proportion of active bogs

Why is this important?

Lowland and intermediate bogs, known locally as mosses, provide valuable services to people and wildlife. They lock away carbon and support a distinctive range of flora and fauna. They have additional value in providing a range of water management and quality functions and well as preserving archaeological and other historic remains. With much of our peatland resource in unfavourable condition, we are losing valuable services and incurring costs as a result of the continuing degradation of peatland ecosystems.

What will influence this indicator?

We aim to increase the proportion of peatland in favourable condition. This can be influenced by practical projects that restore the function of damaged peat. However peatland may be adversely affected by other activities including drainage, forestry, burning, grazing and peat extraction.

How do measure this?

Commissioned reports in 1996, 2013 and 2015 gave a snapshot of the state of different bogs in Cumbernauld. These were interpreted along with local knowledge by the conservation manager responsible for the Slamannan Bog Restoration Project. Future projects will measure the improvement in condition as these areas are restored.

How are we performing?

Currently the bogs can be placed into three categories:

Category	Description	Proportion
Active	Areas where there is active peat deposition and at least three good indicator plants	20% (79ha)
Recovering	Bogs where the unfavourable conditions have been corrected and they are currently in the process of recovering	39% (150ha)
Poor	Bog habitats have been damaged leading to the drying and loss of bog habitat	41% (159ha)



Objective 2: Improve water quality within the network of rivers, streams and lochs

Outcomes

- Water bodies have an improved ecological status
- Fresh water species numbers are improving
- Pollution from runoff and seepage is reduced

Actions/practical measures

- We are building new SUDS to improve the water quality of Red Burn
- We are advocating the multiple benefits of SUDS in new developments

Indicator: Ecological status of rivers

Why is this important?

Water quality is of significance to aquatic species and human health. Rivers and burns are frequently the only remaining semi natural feature in urban landscapes and are therefore of great value. The connectivity of streams and rivers provides benefits across the landscape and poor water quality threatens the function of the network.

What will influence this indicator?

We aim to improve the classification of all the water bodies. The complex drainage network in urban areas makes dealing with multiple sources of pollution difficult and reduces water quality. This is compounded by habitat destruction and simplification. The creation of Sustainable Urban Drainage Systems, control of non-native invasive plants and improvement of riparian vegetation will improve water quality.

How do we measure this?

Cumbernauld's rivers are actively monitored by SEPA. The latest status and classification of these rivers based on a three year dataset is reported by the Water Framework Directive.

How are we performing?

The table below shows the ecological status of rivers in the Cumbernauld Living Landscape area.

Water body	Ecological status of river (2013)
Board Burn	Moderate
Bonny Water (Red Burn)	Poor
Glencryan Burn	Moderate
Luggie Water	Moderate

Objective 3: Protect and enhance carbon stores

Outcomes

- Peat bogs have been restored to function as carbon sinks
- Woodlands are expanding and sustainable managed

Actions/practical measures

- Restoring bogs in the Fannyside Muir area
- Creating woodland
- Managing existing woodland to improve its health

Indicator: Carbon storage potential for peat bog areas

Why is this important?

Damage to peatlands is a significant source of greenhouse gas emissions responsible for climate change. In the UK, peatlands should be able to continue functioning under the impacts of a changing climate, provided they are brought into good condition. Restoration of peatlands offers climate change mitigation by stemming greenhouse gas emissions and brings adaptation benefits in helping alleviate flood problems and maintaining important biodiversity under a changing climate.

What will influence this indicator?

We aim to increase the carbon storage potential. The management of large peatland areas within the Living landscape will affect this factor. Afforestation and drainage will reduce the potential for the bogs to store carbon whereas restoration will improve their storage potential.

How do we measure this?

EcoServ GIS model was used to produce a Carbon Capacity Map: this provides a map of the estimated carbon storage in vegetation and top 30 cm of soil. It depends upon the distribution of 11 different habitat classes within the study area assuming that these are in 'good' condition. Data from the 1996 Inventory of Lowland Raised Bogs provides evidence of a number of previous bog areas identified in North Lanarkshire in 1996. These areas were outlined and the current carbon storage potential of the areas was calculated based on the data from the EcoServ model described above

How are we performing?

Currently 61% of the peatland in Cumbernauld is reaching its carbon store potential. Using the data from the EcoServ model the total potential carbon storage capacity of all habitats in the CLL area is 825,771 tonnes of carbon. For the area of peat bogs identified in the 1996 survey the potential carbon storage based on the current landcover is 118,304 tonnes of carbon. If the degraded peatbog areas were restored to fully a functioning condition then there would be an additional 73,759 tonnes of carbon storage potential.

Principle 2

Re-connect people to their natural environment and link the network of greenspaces in Cumbernauld



Objective 4. Support communities to grow more food

Outcomes

- There are more community growing spaces available
- The number of allotments has increased
- People are more aware of the opportunities and benefits of growing food locally

Actions/practical measures

- We are improving the capacity of community groups to set up more of their own growing spaces
- We are building new growing spaces to increase the opportunities to grow food locally

Indicator: Number of community growing spaces

Why is this important?

Community growing spaces are an important way of engaging people with environmental, food growing, health and low carbon issues. Rising populations and increased demand for growing spaces is not being met by increased number of growing spaces.

What will influence this indicator?

We aim to increase the number of growing spaces. The availability of land and North Lanarkshire Council policy will affect the provision of growing spaces. This will be driven by the public demand for growing spaces.

How do we measure this

The number of allotments and growing spaces is collected from local groups through the Cumbernauld Living Landscape.

How are we performing?

In total there are 30 individual growing spaces in Cumbernauld.



“Working with the
Cumbernauld Living
Landscape the
children’s
Superheroes club has
secured core
funding”

Scottish Spina
Bifida Association

Objective 5. Provide volunteer opportunities for people to take action to improve the environment

Outcomes

- We have increased the number of volunteers in greenspaces
- Local volunteer groups are able to take action to improve the environment

Actions/practical measures

- We are supporting local groups to improve their skills
- Collaborating on volunteer programmes to increase volunteering opportunities
- We are recruiting volunteers to help deliver public engagement

Indicator: The number of local groups taking environmental action

Why is this important?

Local groups and volunteers make an invaluable contribution to practical management and conservation. This promotes enjoyment and responsible recreational use, environmental education and public awareness of environmental issues. Volunteering improves skills and health of those involved and contributes to lifelong learning.

What will influence this indicator?

We want to increase the number of groups taking action. The awareness of the need for and benefits of volunteering will influence the demand for opportunities. The capacity of organisations and groups to support volunteers will limit the number of people.

How do we measure this?

Local groups taking environmental action have been identified through the Living Landscape stakeholders and Cumbernauld Community Forum.

How are we performing?

In total there are 37 groups in Cumbernauld that are taking action to improve the town’s environment.

Objective 6. Engage communities to raise awareness of the local environment and inspire them to take action

Outcomes

- More people are aware of the natural environment
- More people take action to improve their local environment
- More community groups are taking forward projects to improve the environment

Actions/practical measures

- We are running wildlife workshops to improve people's knowledge of Cumbernauld's wildlife
- We are publicising greenspaces to raise people's awareness of what is available
- We are creating resources (maps, leaflets & other media) that will raise awareness of the natural environment
- We are recruiting volunteers to help deliver public engagement and practical conservation tasks

Indicator: Proportion of people volunteering to improve their environment & community

Why is this important?

Community action can achieve improvements to the local environment and closer links between people and their natural heritage. Developing community awareness for the natural environment encourages active citizenship and participation in local issues.

What will influence this indicator?

We want to increase the proportion of people volunteering. The capacity of the programme leaders and local community groups will affect the opportunities available for volunteering. People's engagement and value of the natural environment will determine the numbers of people willing to volunteer.

How do we measure this?

Sampled at the North Lanarkshire scale from the regional statistics of the Scottish Household Survey 2013. Overall in North Lanarkshire 20% of people indicated that they provide unpaid help to groups or organisations compared to 28% across Scotland. 7 % of the people volunteering in North Lanarkshire were giving up their time for environment/wildlife protection and community projects.

How are we performing?

1.5% of people in North Lanarkshire give up their time for community groups and environment/wildlife protection. This means that in a town with population of 50,000 an estimated 750 people will be volunteering to improve their community and environment.

Objective 7. Improve accessibility to natural areas and encourage active travel

Outcomes

- People safer in greenspaces and value the green network
- We have improved the opportunities to access natural areas
- The number of active walking and cycling journeys has increased

Actions/practical measures

- We are improving footpaths to ensure people have better access
- We are managing woodlands to improve perceptions of safety
- We are working with partners to remove the physical and social barriers to active travel

Indicator: Percentage of people regularly using their local greenspace

Why is this important?

Access to local greenspaces improves people's health and wellbeing and connects them to the natural environment. There is a weight of evidence that links good quality accessible greenspace to improved physical and mental health. Local greenspaces are especially important as they are most likely to influence surrounding communities.

What will influence this indicator?

We aim to increase the number of people regularly using local greenspaces. The access network and the quality of the greenspaces will be important influences in how many people use them. This will also be effected by people's perceptions and values.

How do we measure this?

Until a more direct measure is available the data is sampled at the North Lanarkshire scale from the regional statistics of the Scottish Household Survey 2013.

How are we performing?

36% of people regularly (once a week or more) use their local greenspace.



A line of children, mostly wearing blue raincoats, are sitting on a large, weathered log in a forest. The child in the foreground is wearing a red raincoat and black boots with a Spider-Man logo. The background is filled with lush green foliage, creating a soft, bokeh effect.

Principle 3

Promote
Cumbernauld as
a good place to
live, work and
do business due
to the quality of
its greenspace

The greenest town in Scotland?

“Over 50% of Cumbernauld town centre is made up of greenspace - our parks, gardens and woodlands”

Objective 8. Support the local economy by improving skills and employability through land management

Outcomes

- Increased value and number of contract issued to local companies
- More people now have skills to go onto work

Actions/practical measures

- We are delivering programmes that provide the work force with skills
- We are using local contractors to deliver practical projects
- We are collaborating with training schemes to provide opportunities

Indicator: Number of people are undertaking greenspace skills & training

Why is this important?

The capacity of communities and individuals to take action to improve their environment is key to the long term sustainability of the Living Landscape. Improving skills and knowledge will help empower local communities to take action and improve their environment. These skills will be transferable and can directly improve employability.

What will influence this indicator?

This will be influenced by the demand for and capacity of the organisations to deliver skills and training.

How do we measure this?

Information was collated from project partners in 2014.

How are we performing?

32 people have attended skills training. Since 2014 24 trainees attended NLC's greenspace employability skills training and 4 internships and two traineeships have been hosted by the Cumbernauld Living Landscape.

Objective 9. Working with farmers/ land owners to improve ecosystem health and sustainable land management

Outcomes

- More land is being managed sustainably
- Landowners are actively working to improve ecosystem health

Actions/practical measures

- Demonstrating best practice in woodland management

Indicator: Area of land under active management to improve wildlife habitats

Why is this important?

Agriculture is the dominant land use in the south of the project area and much of the area is grazed at low intensity. If managed appropriately farmland can have a huge significance for ecosystem function. Well managed farmland supports the hydrological processes that people need for water purification and flood prevention. This is in addition to the food and jobs these areas create.

What will influence this indicator?

We want to increase the area under active management. Policy on rural payments will influence how attractive incentives are to manage these areas for biodiversity. The objectives of local landowners will have a large effect on the management of the land. Pressure from external markets such as food prices and land values will influence this.

How do we measure this?

This data is not currently available but future work will identify landowners taking forward these actions.

How are we performing?

No data currently available



Objective 10. Support Planning & Heritage to deliver developments that are healthy places for people and wildlife

Outcomes

- Developers to include Living Landscape principles in new developments.
- New developments & regeneration projects integrate high quality green infrastructure

Actions/practical measures

- We are taking a proactive approach to influence the development of the South Cumbernauld Community Growth Area meetings with planners and developers.
- Creating guidance to inform the planning process
- We are responding to planning consultations to ensure that the Living Landscape principles are given due consideration.

Indicator: The number of green network principles that are met by the design of the South Cumbernauld Community Growth Areas

Why is this important?

Scottish Government planning policy sets the standard for the inclusion of green infrastructure, protection of biodiversity and the design of place. However the delivery of these policies is often eroded through the planning process. The Community Growth Area represents an ideal opportunity to see these policies delivered sustainably.

What will influence this indicator?

This will be influenced by the strength of the planning system and commercial drivers. Ongoing advocacy at all levels will be required to influence the developers to deliver these principles.

How do we measure this?

As developments are taken forward in the Community Growth Area we will assess these against the site specific recommendations made in the Living Landscapes Green Network Guidance.

How are we performing?

No data currently available. This will be first assessed when the Strategic Development Framework is published in 2015 and the first planning applications are submitted.

Indicators at a glance	Objective	Indicator	Target	Baseline
Create and maintain a high quality natural environment for wildlife to flourish and people to enjoy	Restore, recreate and reconnect wildlife habitats	The proportion of semi natural woodland to all woodland cover	We aim to increase the proportion	23% (251ha)
		The overall area and average size of core natural habitat networks	Increase the area and average size	Woodland = 386ha, ave. = 42.9 Acid grassland = 786ha, ave. = 32.77ha Heathland = 192.4ha, ave. = 64.14 Wetland = 79.4, ave.=8.8
		The proportion of active bogs	Increase active	Active = 20% (79ha) Recovering = 39% (150ha) Poor = 41% (159ha)
	Improve water quality within the network of rivers, streams and lochs	Ecological status of rivers	Improve the classification of all the water bodies to good	Three of the four monitored water bodies are classified as moderate and one is poor.
	Protect and enhance carbon stores	Carbon storage potential for peat bog areas	We aim to increase the storage potential where possible	61% of peatland in Cumbernauld is reaching its potential
Re-connect people to their natural environment and link the network of greenspaces in Cumbernauld	Support communities to grow more food	Number of community growing spaces	Increase number	30 spaces
	Provide volunteer opportunities for people to take action to improve their environment	The number of local groups taking environmental action	Increase the number of groups taking action	37 groups
	Improve accessibility to natural areas and encourage active travel	Percentage of people regularly using their local greenspace	Increase this above the Scottish average of 49%	36%
	Engage communities to raise awareness of the local environment and inspire them to take action	Proportion of people volunteering to improve their environment & community	Increase proportion of people	1.5% of people
Promote Cumbernauld as a good place to live, work and do business due to the quality of its greenspaces	Support the local economy by improving skills and employability through land management	Number of people undertaking greenspace skills & training	Increase number	32 people
	Working with farmers/ land owners to improve ecosystem health and sustainable land management	Area of land under active management to improve wildlife habitats	Increase area	No data currently available
	Support Planning & Heritage to deliver developments that are healthy places for people and wildlife	The number of green network principles that are met by the design of the South Cumbernauld CGA	Increase in green network principles	This will be first assessed when the Strategic Development Framework is published and the first planning applications are submitted

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