



Dumfries and Galloway Draft Open Space Strategy SEA Environmental Report

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SEA ENVIRONMENTAL REPORT

COVER NOTE

PART 1

To:

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PART 2

An Environmental Report is attached for:

Dumfries and Galloway Open Space Strategy

The Responsible Authority is:

Dumfries and Galloway Council

PART 3

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PART 4

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Contents

Abbreviations	3
NON-TECHNICAL SUMMARY	4
1. Introduction	8
Purpose of the Environmental Report and Key Facts.....	8
SEA activities to date	10
2. Context.....	11
Background and Objectives of the OSS.....	11
Relationship with other Plans, Programmes and Strategies and environmental objectives	12
Current State of the Environment.....	16
Environmental Issues	18
Likely evolution of the environment without the OSS?	19
Development of Assessment Criteria	19
3. Assessment of Environmental Effects and Measures for Mitigation.....	22
Alternatives considered.....	22
Assessment methods	26
Summary	26
Mitigation	30
4. Monitoring	30
Appendix 1: Baseline Information	31
Appendix 2: Full Assessment of Results – SEA.....	46

Abbreviations

BAP/LBAP	Biodiversity Action Plan / Local Biodiversity Action Plan
D&G	Dumfries and Galloway
DGC	Dumfries and Galloway Council
ER	Environmental Report
LDP	Local Development Plan
OSS	Open Space Strategy
PPS	Plans, Programmes and Strategies
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SG	Supplementary Guidance
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SPP	Scottish Planning Policy
SSSI	Sites of Special Scientific Interest

NON-TECHNICAL SUMMARY

This is a non-technical summary of the Environmental Report (ER) which documents the Strategic Environmental Assessment (SEA) of the draft Dumfries and Galloway Open Space Strategy (OSS). This Strategy will inform decision making on open space and sets out: how Dumfries and Galloway Council (DGC) will invest in and manage the open space in its area, the vision for new and improved open space and how existing valuable and valued areas are to be protected. Specifically, one of its main aims is to ensure that the majority of residents in the region have access to good quality open space.

The OSS covers the whole of the Dumfries and Galloway region and will be an important document in influencing the future development, management and conservation of open space in the region. The overall outcome of the strategy is to maintain (or increase where possible) reasonable quantity, accessibility and quality of publicly usable open spaces - especially in relation to wider connectivity and multi-functionality. Within this outcome there are five objectives, as follows:

- Objective 1: Maintain or increase (where necessary and possible) the amount of open space with the aim of meeting the publicly usable open space quantity and accessibility standard;
- Objective 2: Avoid fragmentation of existing open space networks;
- Objective 3: Increase / enhance connectivity between open spaces and between these and residential areas;
- Objective 4: maintain or increase (where necessary and possible) the quality of existing spaces and ensure that new spaces are of good quality;
- Objective 5: ensure new open space is made as multi-functional as possible, serving a number of different uses and aim to improve multi-functionality of existing spaces.

The strategy is structured around these objectives and will include action points and recommendations to allow for its implementation and monitoring.

The OSS will be of benefit to a range of users and interested parties including developers, local community groups, residents and visitors. The OSS, once formally approved after public consultation, will provide the Council's strategy in relation to open space requirements, will be a material consideration in responding to housing development proposals and will also feed into other strategies and programmes relating to human health and wellbeing, recreation and transport within the region.

An SEA is required under the Environmental Assessment (Scotland) Act 2005 in order to determine the potential environmental effects of implementing the OSS. SEA aims to:

- integrate environmental factors into the preparation and decision making in relation to plans, programmes and strategies (PPS);
- improve PPS and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency in decision making

The parameters for the SEA have been established through a Scoping exercise. The comments received from the Consultation Authorities (Historic Scotland, SEPA and SNH) in respect of the Scoping Report have been considered and, where appropriate, included within the ER. The following are the main purposes of the ER:

- to provide information on the OSS;
- to identify, describe and evaluate the likely significant effects of the OSS and its reasonable alternatives; and
- to provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this report

The SEA process for the draft OSS followed established methods and systematic testing of the OSS as it developed. This involved testing the draft OSS objectives against the SEA objectives, predicting the environmental effects of implementing the draft OSS, considering mitigation measures and preparing a monitoring programme. The conclusions from each stage of SEA are summarised in sections below. The public and stakeholders have had the opportunity to comment upon the development of the OSS Environmental Report and its impacts and, where appropriate, amendments have been made.

The SEA evaluation requires an understanding of the environmental characteristics of the Council area. Environmental issues at an area-wide level that have been identified in the Scoping Report are as follows:

- BIODIVERSITY, FLORA AND FAUNA:
The conservation of biodiversity is an important part of open space management. Biologically diverse open spaces contribute to the diversity and sustainability of the wider landscape, provide a range of ecosystem services and provide opportunities for people to experience nature close at hand. Dumfries and Galloway has an extensive and varied range of environments creating a wide collection of habitats and is widely known for the diversity of its wildlife partly due its wide topographical variations. The region forms the southern limits of many northern species and the northern limit to many southern species.
- POPULATION AND HUMAN HEALTH:
Open spaces provide an important role within local communities especially in relation to enhancing public health and providing recreational opportunities. The quality of the physical environment is important for health and wellbeing and open spaces are seen as having an invaluable role in promoting health opportunities, increasing life expectancy and reducing health inequalities through motivating people to visit them and take exercise.

Tourism is the single most important rural industry in the region and is the only sector that is growing annually, although the tourism economy of the region is considered to be fragile and underdeveloped. Good quality open spaces, incorporating recreational opportunities, have an important role to play in enhancing tourism.

- SOIL:
Soil is a complex, and variable medium comprising mineral particles, organic matter, water, air and living organisms which can provide an

important habitat in their own right. The region's soils reflect the glacial past and the climate rather than solid geology. Only at higher elevations and on the steeper slopes is the underlying rock type evident in soil formation. Peaty soils make up the majority of soil types in the region.

Impacts on soil quality, and on the function of soils in storing carbon, can occur in areas of low pH/high carbon soils. *Following advice from consultation with the consultation authorities, the topic of soil has not been included in the assessment as it is considered unlikely that the OSS would have any significant impact on this.*

- WATER:
Open spaces, and SuDS which may form part of them, have the potential to contribute to catchment wide approaches to flood management by slowing run-off response times. The Flood Risk Management (Scotland) Act 2009 puts a requirement on all involved in the management of flood risk to consider natural flood management. Open Space therefore has a role to play in reducing flood risk.
- AIR:
Open space tends to have a positive effect on air quality and can contribute to the absorption of air pollution. Air quality within the region is generally of a high quality in terms of national air quality objectives.
- MATERIAL ASSETS:
Open space resources are generally seen as a key asset in providing important community facilities, recreation and physical activity opportunities and improving the quality of the environment and residents' quality of life. There can be pressure to develop open space or to sell Council owned land both to generate income and to relieve maintenance burdens.
- CLIMATIC FACTORS:
Up until relatively recently, the climate has undergone fluctuations but has remained relatively stable since the last ice age. However, the global temperature is now rising and there is evidence that rainfall patterns are changing, sea levels are rising, glaciers are retreating, Arctic sea-ice is decreasing and the incidence of extreme weather is increasing.

Open spaces play an important role in the carbon cycle and in mitigating climate change effects. Growing concerns about climate change suggest that mitigation responses may become increasingly important.

Recent climate change guidance suggests that the climate of the region will remain wet and mild, although there is an expectation of increased frequency of extreme weather events. These may result in threats to wildlife habitats.

- CULTURAL HERITAGE:
The whole environment has an historic dimension that contributes to its quality and character. It has been shaped by human and natural processes over thousands of years. The context in which specific historic features sit and the patterns of past use are part of the historic environment. The historical, artistic, literary, linguistic, and scenic associations of places and landscapes are some of the less tangible elements of the historic environment. These elements make a fundamental contribution to our sense of place and cultural identity. The historic value of the features found in some open space and the landscapes they create are recognised.
- LANDSCAPE:
Landscape constantly changes due to the influences of natural and/or human forces. Sometimes these changes are subtle and imperceptible, reflecting gradual shifts in land management or climate whilst at other times the changes can be more dramatic or intense, such as when new development takes place. The region has a wide range of landscape types, identified in the D&G Landscape Assessment, and this diversity is considered to be one of the region's major assets.

Open spaces within and adjacent to settlements have great potential to enhance and enrich the landscape. They can also be a significant force for landscape change. Urban woodlands, for example, can create new habitats, enhance views, absorb activity and bring people closer to nature in both town and country. Very often they are the defining element of the landscape, shaping and enclosing space, framing views and providing colour, texture and scale.

SEA objectives have been developed for each of the identified environmental issues after careful review of relevant policies, plans and programmes and the collection of baseline data.

As part of the process, alternative approaches were considered for the delivery of the strategy for open space. Developing an OSS was considered to be the best environmental option. This allows the creation of a framework in which open space can be properly managed and also a mechanism to co-ordinate the work of agencies, local authorities and other interest groups involved in the delivery of open space management.

The assessment method is a relatively simple matrix to assess whether there would be positive or negative impacts on the environment. Overall it is considered that the implementation of the OSS would not result in significant negative impacts on the environment but there would be positive impacts, particularly in relation to human health.

Indicators are suggested within the Environment Report which are proposed to be used as part of monitoring the environmental outcomes of implementing the OSS.

1. Introduction

Purpose of the Environmental Report and Key Facts

1.1 The purpose of the Environmental Report (ER) is to identify, describe and evaluate the likely significant effects on the environment of implementing the proposed Dumfries and Galloway Open Space Strategy (OSS) and any reasonable alternatives that have been assessed. The ER has provided an early and effective opportunity for the Consultation Authorities and the public to offer their views on any aspect of the proposed guidance and its environmental implications.

1.1 The ER describes the assessment of the OSS's proposed objectives and recommended measures to prevent, reduce and mitigate any potentially significant negative environmental effects, whilst providing measures to improve or enhance the positive environmental effects of implementing the OSS identified through the SEA process. The ER sets out a proposed framework for monitoring the potential significant effects of implementing the OSS.

1.2 The process is intended to ensure the integration of environmental factors into policy formulation, to improve the policy whilst enhancing environmental protection, and to ensure an appropriate level of consultation (and transparency in setting out how the SEA process has influenced the planning process and decision making).

1.3 The key facts relating to the OSS are stated in Table 1 below.

Table 1: Key Facts

Responsible Authority Dumfries and Galloway Council
Title of Strategy Dumfries and Galloway Open Space Strategy
What Prompted the Strategy? The OSS fulfils a requirement set out in the Scottish Government's Planning Advice Note - Planning and Open Space (PAN 65) and the current Scottish Planning Policy (2010). SPP states that "Planning authorities should take a strategic and long term approach to managing the open space in their area, assessing both current and future needs and protecting all spaces which can help to meet them. Authorities should undertake an audit of the open space resource in their area...and using the information from this, should prepare an open space strategy which sets out the vision for new and improved open space and addresses any deficiencies identified". An open space audit has been carried out which provides the baseline data for the OSS. The Dumfries and Galloway Local Development Plan (LDP) is currently at Examination stage and it is proposed that the Strategy will support open space and green network policies in the LDP as well as the wider strategic and policy objectives of the Plan. The Strategy will not only be used to inform planning decisions but is an important document for other Council services such as those responsible for commissioning and maintaining open space and also those involved in communities, housing, education, sports, recreation, health and physical activity, outdoor access, biodiversity, flood management and climate change.

<p>Plan Subject The OSS reflects the Council's approach to managing the open space resource in settlements within the Dumfries and Galloway region.</p>
<p>Period Covered by Plan The period covered by the plan is 2014-2019.</p>
<p>Frequency of Plan Updates The Strategy, along with the associated Audit, will be reviewed every 5 years.</p>
<p>Area covered by the OSS The OSS will cover the whole of the Dumfries and Galloway region.</p>
<p>Purpose and Objectives of the OSS The OSS will inform decision making on open space and sets out: how Dumfries and Galloway Council will invest in and manage the open space in its area, the vision for new and improved open space and how existing valuable and valued areas are to be protected. Specifically, one of its main aims is to ensure that the majority of residents in the region have access to good quality open space.</p> <p>It is intended that the Strategy provides the evidence, sets the direction and helps secure funds for investment in open space. The overall outcome of the Strategy is to maintain (or increase where possible) reasonable quantity, accessibility and quality of publicly usable open spaces - especially in relation to wider connectivity and multi-functionality. This will ensure that there is sufficient open space provision of appropriate quality, within easy walking distance from people's homes which is linked by paths and green corridors.</p> <p>The specific objectives which come under the overall outcome are as follows:</p> <ul style="list-style-type: none"> • Objective 1: maintain or increase (where necessary and possible) the amount of open space with the aim of meeting the publicly usable open space quantity and accessibility standard; • Objective 2: avoid fragmentation of existing open space networks; • Objective 3: increase / enhance connectivity between open spaces and between these and residential areas; • Objective 4: maintain or increase (where necessary and possible) the quality of existing spaces and ensure that new spaces are of good quality; • Objective 5: ensure new open space is made as multi-functional as possible, serving a number of different uses and aim to improve multi-functionality of existing spaces.
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SEA activities to date

1.5 In respect of the SEA process the Council has completed a Scoping Report which was submitted to the Consultation Authorities via the SEA Gateway on the 15th January 2014. The responses from the Consultation Authorities confirmed that there were potentially significant environmental effects to be considered and assessed when formulating the strategy.

1.6 The key issues raised by the Consultation Authorities in respect of the Scoping Report were as follows:

Historic Scotland –

- Content with level and detail and methodology proposed
- Suggests that the historic environment could be scoped out at this stage of the ER but are content that it remains in as a precautionary approach

SEPA –

- Suggests additional PPS to be included with relevance to Water and Climate Change
- The ER should outline mitigation measures where an environmental impact is identified
- Suggests that a description of the measures envisaged to monitor the significant environmental effects of the strategy are included

SNH –

- Suggests that both landscape and soil could potentially be scoped out
- The strategy should make particular reference to the consideration of European Protected Species
- Suggests that an appraisal under the habitat regulations is undertaken for the SEA
- The definition of ‘designated sites’ and ‘additional designated sites’ needs clarification. Associated targets also require a measurable component
- The ‘Loss of designated sites’ should not be used as an SEA objective indicator
- Suggests that the SEA objective for soil needs clarification
- Suggests that any necessary mitigation measures are detailed
- The ER should consider appropriate monitoring arrangements

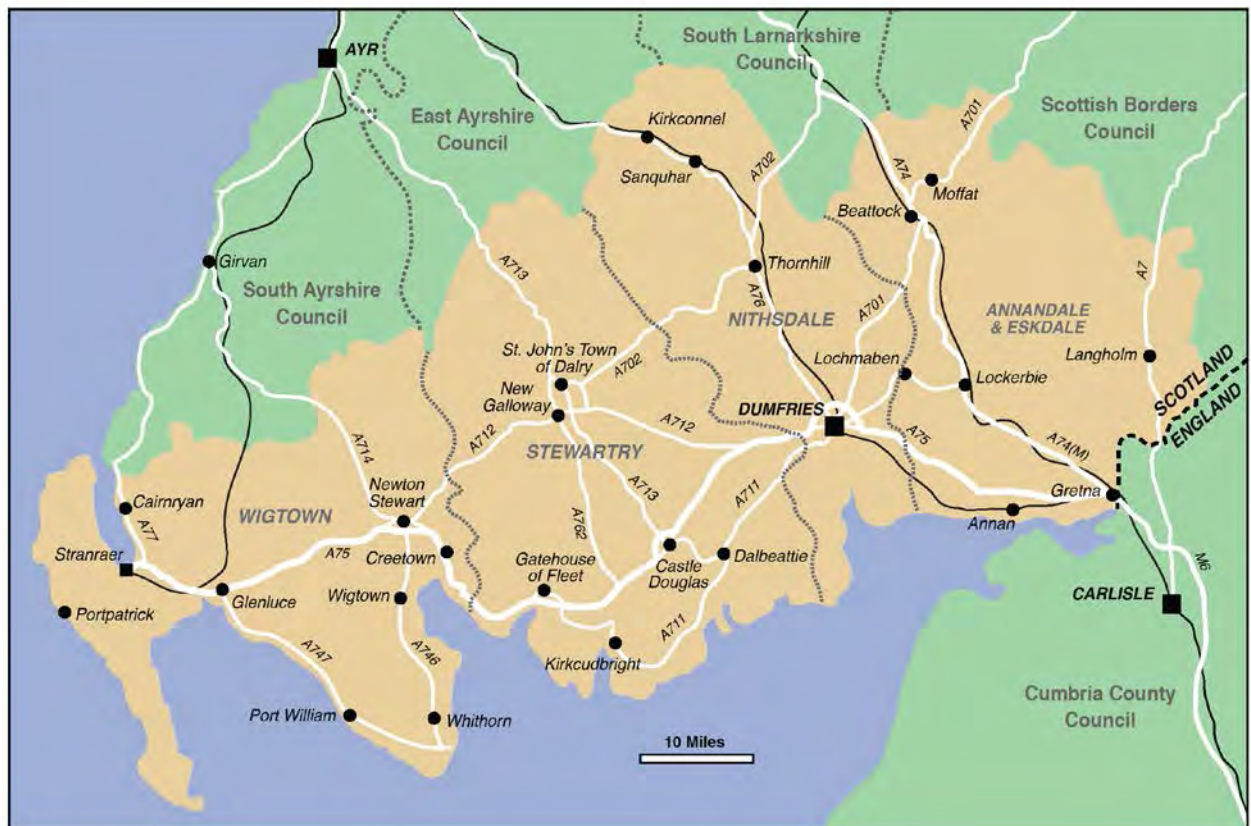
1.7 The public consultation period in respect of both the OSS and the ER takes place for a 6 week period from 28th April 2014.

2. Context

Background and Objectives of the OSS

2.1 Dumfries and Galloway Council (DGC), in partnership with relevant bodies and agencies, is undertaking the preparation of an Open Space Strategy for the whole of its area (Map 1.)

Map 1: The Dumfries and Galloway Area



2.2 Dumfries and Galloway is the third largest region in Scotland. Its land area covers approximately 6,400 square kilometres.

2.3 The OSS will relate to all types of open space across the region, including Greenspace (such as playing fields, parks, allotments, cemeteries and green corridors like paths, disused railway lines, rivers, and canals, derelict, contaminated or vacant land which has the potential to be transformed), Open Space (such as open land or areas that are vegetated or paved / hard landscaped within and on the edge of settlements; for example town squares, market places, amenity land, sports areas and children's play areas) and Green Networks (such as woodland and other habitats, active travel routes, greenspace links, watercourses and waterways). It will provide guidance not only on the preferred location of new open space, but also the quality and accessibility standards that are required for both new and existing open space.

2.4 The OSS sets the framework for addressing issues of deficiencies in open space provision / facilities and recommending cost effective improvements that meet local needs and the subsequent provision of open space required in new developments (this will be set out in more detail in the Supplementary Guidance); in this way, it will assist in making decisions on planning applications, for example by providing the justification for seeking contributions from developers for open space when planning permission for development is granted.

Relationship with other Plans, Programmes and Strategies and environmental objectives

2.5 A review of other relevant plans programmes and strategies (PPS) is an essential component of SEA. The aim of the review is to:

- identify matters that are significant and could influence the development of the OSS;
- establish links between other PPSs and the emerging OSS;
- identify key national and regional priorities that need to be taken into consideration; and
- identify any objectives and indicators relevant to the OSS in other PPS that could be used to inform the SEA process.

2.6 Table 2 lists the PPS and environmental objectives we propose to analyse for their relationship with the OSS. Any PPS above the Scottish level have generally been excluded from the list, primarily because it is assumed that all relevant international, European and UK environmental legislation has been implemented into national, regional and local strategy and guidance.

2.7 The OSS could be affected by, and itself affect, a wide range of other relevant PPS both within and outside the Council's jurisdiction and it is therefore important to determine whether the OSS will give rise to conflicts with these. Inconsistencies are bound to arise at times between other PPS or environmental objectives. In deciding how to resolve any conflicts, the relative timing of the plans, programmes or objectives concerned will be considered, as well as the degree to which they accord with current policy or legal requirements and the objectives of the Act and SEA Directive. The table below summarises the main, directly relevant strategies and plans, which have an influence on the OSS.

Table 2: Relationship of OSS with other PPS

Name of PPS	Key Considerations	How it affects or is affected by the OSS
Scottish Planning Policy (SPP)	This SPP is a statement of Scottish Government policy on land use planning and includes its view of the purpose of planning, the core principles and objectives of the system, statutory guidance on sustainable development, concise subject planning policies, including the implications for development planning and development management, and its expectations of the intended outcomes of the planning system.	SPP encourages planning authorities to prepare Open Space strategies and carry out audits of the existing resource.
Planning Advice Note 65	Planning Advice Notes (PANs) provide advice on good practice and other relevant information. PAN 65 gives advice on the role of the planning system in protecting and enhancing existing open spaces and providing high quality new spaces.	PAN 65 sets out a typology of open spaces to be used as a basis for audits and provides guidance on preparing open space strategies.
Climate Change (Scotland) Act 2009	The Climate Change (Scotland) Act 2009 is an Act of the Scottish Parliament. The Act sets an emissions reduction target for 2050 and an interim target for 2020.	The Climate Change (Scotland) Act 2009 places duties on the public sector to deliver progress on climate change. Open space can play a role in reducing human causes of climate change.
Flood Risk Management (Scotland) Act 2009	Provides a framework for the delivery of sustainable flood risk management in Scotland.	The OSS objective 5 could support the delivery of sustainable flood defences.
Solway Tweed River Basin Management Plan (RBMP)	Produced as a requirement under the Water Framework Directive and addresses significant impacts by co-ordinating all aspects of water management.	Changes in land use, such as the creation of new areas of open space, could have either positive or negative implications for water quality.
Managing Invasive Non-Native Species in Scotland's Water Environment	Supplementary plan to the RBMP addressing the issue of Invasive Non-Native Species. The plan gives guidance on how to monitor, classify, prevent and control the spread of Invasive Non-Native Species.	Open space can provide a potential habitat for INNS which can be spread accidentally by people taking part in certain activities, anglers for example, so this could have implications for open space use. Climate Change can also aid the spread of INNS. As the OSS could potentially reduce greenhouse gas emissions then it could help to halt the spread of INNS.
Water Environment	These are regulatory controls over activities in order to protect	Enables SEPA to control activities which may

Name of PPS	Key Considerations	How it affects or is affected by the OSS
(Controlled Activities) (Scotland) Regulations 2011(as amended)	and improve Scotland's water environment.	have an impact on the water environment and on the interests of other users of the water environment. This may have implications for the design and use of open space, in particular open space which contains SuDS.
Dumfries and Galloway Local Plan 2006	Sets out detailed policies and specific proposals for the development of land that guide day to day planning applications. Due to be replaced by Local Development Plan by end of 2014.	Contains policies requiring the provision of open space in new developments and also for the protection of existing open space. Key open spaces are identified in the inset maps.
Dumfries and Galloway Local Development Plan (due to be adopted 2014)	Provides the planning framework for the region, guiding the future use and development of towns, villages and the rural area. Contains detailed policies and specific proposals, including allocated housing and business and industry sites.	Contains policies requiring the provision of or contribution towards open space as part of new developments, as well as protecting existing spaces and avoiding fragmentation of green networks. It will be accompanied by Supplementary Guidance on Open Space.
Dumfries and Galloway Council Priorities and Single Outcome Agreement 2013-2016	This is the region's fourth SOA and presents the aspirations and commitments of all the partners in Dumfries and Galloway to improve the quality of life for the people who live here. SOAs provide the foundation for effective partnership working within which wider reform initiatives can take place.	OSS objectives support the following Council priorities: Priority 1: We will provide a good start in life for all our children; Priority 3: We will care for our older and vulnerable people; Priority 6: We will protect and sustain our environment.
Access Strategy (Open Outdoors, Dumfries and Galloway Outdoor Access Strategy, 2012-2017)	The Dumfries & Galloway Outdoor Access Strategy provides a vision for outdoor access and the strategic framework for planning, managing and developing access in Dumfries & Galloway.	The OSS supports the vision and objectives (e.g. increasing physical activity) set out in the Access Strategy.
Child Healthy Weight Sustainability Framework (2011)	The purpose of the Framework is to provide a framework that will build the momentum to tackle the increasing problem of overweight and obesity in Dumfries & Galloway.	The Framework recognises that improving the built environment in order to facilitate and enable outdoor activities and active travel and increasing opportunities to be physically active (both objectives of the OSS) are key elements in tackling overweight and obesity.
Core Paths Plan	Maps the paths considered to be key to the area, termed 'Core	The Core Paths Plan identified a network of

Name of PPS	Key Considerations	How it affects or is affected by the OSS
	Paths', and give residents and visitors reasonable non-vehicular access throughout Dumfries and Galloway.	core paths throughout the region – the paths can be part of wider open space and green corridors or form important connections between open spaces.
Cultural Strategy (2009)	The purpose of this strategy is to guide the future development and delivery of cultural assets and services within Dumfries and Galloway.	Open spaces can provide venues for cultural events and festivals and are important cultural spaces in their own right.
Forestry and Woodland Strategy (2013)	Providing a framework for the management, protection and enhancement of trees and urban woods with specific actions relating to promoting the use of forests for recreation, physical activity and to enhance health and wellbeing.	Woodlands within and adjacent to settlements make an important contribution to the open space resource.
Leisure and Sport Strategy (2006-2010)	The strategy contains a framework in which leisure and sport and active lifestyles are valued as ways of improving the quality of life in communities throughout the region.	Influences the open space typology of outdoor sports areas.
Local Biodiversity Action Plan (2008)	Aims to conserve and enhance biodiversity and deliver action for national priorities identified in the UK Biodiversity Action Plan (UKBAP), and for local areas of species and habitats which are particularly valued.	Identifies at risk local species and habitats to be protected and enhanced within Dumfries and Galloway.
Local Housing Strategy (2012)	Sets out a shared understanding of the housing and related priorities of Dumfries and Galloway and addresses how the Council and its key partners will meet these and contribute toward the delivery of the Council's Single Outcome Agreement.	Contributes towards delivering good quality and well-designed housing areas which support people's physical and mental wellbeing – which would include open space.
Local Transport Strategy (2011)	Sets out Dumfries and Galloway Council's Action Plan for transport in the area, seeking to address identified local problems and explore localised transport issues.	The strategy has implications for open spaces in relation to promoting the benefits of walking and cycling and improving walking and cycling facilities.
Physical Activity Strategy (2008-2011)	Sets out a co-ordinated approach to increasing opportunities for people to take part in physical activity with the main aim being to improve the health and wellbeing of the local community through the promotion, provision and support of various initiatives.	Recognises the need for the provision of good quality, accessible open space in encouraging and sustaining physical activity.

Name of PPS	Key Considerations	How it affects or is affected by the OSS
Play Equipment (Playspace) Strategy (2010 – 2015)	This document reviews the Council's play park provision (playspace) and develops a strategic approach.	Strategy for future service delivery and the policy for inspection, maintenance and provision of play equipment found within the open space typology of children's and teenage play areas.
Regional Transport Strategy (2008)	The purpose of this Strategy is to determine and deliver better transport solutions, both regionally and nationally, and to act as a catalyst for regeneration of the region's economy.	Supports the promotion of walking and cycling, including support for Core Paths and walking networks.

Current State of the Environment

2.8 A clear understanding of the current state of the environment is necessary to assist the identification of environmental problems, support the process of assessing the environmental effects and provide a baseline against which future monitoring data can be compared. The prime information sources for this are set out in Table 3 and baseline environmental information appears in Appendix 1.

Table 3: Data sources for providing baseline environmental assessment

SEA Issue	Relevant Data	Examples of Implications for OSS
Biodiversity, Flora and Fauna	SACs SPAs Ramsar Sites SSSIs National Nature Reserves Local Nature Reserves Local Wildlife Sites UK BAP & LBAP priority habitats and species Ancient and long established woodlands	Potential for adverse effects (noise, pollution, human activity) upon protected habitats and species from new developments and management of new open spaces; Green corridors (wildlife movement) could be fragmented; Potential to create new corridors, new habitats and reduce any existing adverse effects.
Population and Human Health	Population figures Health and Wellbeing Profiles (life expectancy and mortality by cause)	New developments create a demand/ requirement for new open spaces as a venue for relaxation, sport, interaction etc.;

SEA Issue	Relevant Data	Examples of Implications for OSS
	Access to outdoors / open space Sport and recreation participation Physical activity levels Scottish Index of Multiple Deprivation Core paths D&G LDP	Strategy aims to identify surplus/ deficit of open space and standards for provision of new open spaces; Potential to improve health through increased physical activity, reduce pollution by encouraging walking and cycling as an alternative to the car; Positive effects on mental health and wellbeing.
Water	Water quality monitoring data	Open spaces can act as natural filters for storm water, and help reduce runoff.
Air	Air quality monitoring data	Increasing / improving areas of open space could improve local air quality.
Climatic Factors	Carbon dioxide emissions by sector/per capita Levels of greenhouse gas emissions Local precipitation levels Local temperature levels Indicative river and coastal flood maps	Role in climate change adaptation and mitigation e.g. act as a carbon sink / flood mitigation / water management / cooling effect.
Material Assets	Open Space Audit data (amount / type of space) Core Paths	Surplus/ deficits of open spaces will be identified in the Strategy and proposals to address these issues will be set out. Proposals to improve quality will also be set out.
Cultural Heritage	Scheduled Ancient Monuments Listed Buildings Conservation Areas Archaeological Sensitive Areas Gardens and Designed Landscapes	Open space can form important part of settings for e.g. listed buildings and Conservation Areas and historic landscapes.
Landscape	D&G Landscape Character Assessment Designated landscape areas Inventory and non-inventory Gardens and Designed landscapes	Poorly designed developments could fail to integrate into the landscape or fragment green corridors or could adversely affect designated landscapes; Potential projects could be identified which significantly improve / protect the landscape.

Environmental Issues

2.9 Existing environmental problems are required to be considered in relation to the OSS and the likelihood of their effects to aggravate, reduce or otherwise affect current environmental problems also need to be taken into account. The existing primary environmental concerns, issues and problems that have been identified relating to the matters addressed by the OSS are shown in Table 4 below.

Table 4: Existing Environmental Problems relating to the OSS

Problem	Implications for OSS
Potential erosion of urban greenspace through pressures of development and lack of management.	Supports policies in LDP which protect open space; Provides framework for management decisions.
Pollution and noise caused by excessive vehicles.	Aims to improve quality and multi-functionality of open space e.g. can provide noise buffers between residential areas and roads.
Localised flooding close to watercourses exacerbated by climate change.	Need to protect water margins and improve / increase open space around watercourses.
Limited opportunities for biodiversity within the urban environment.	Increase open space in urban areas or change management practices to encourage wildlife e.g. by creating more natural spaces.
Urban environments can be harsh and unappealing due to lack of greenery.	Increase open space and promote “greening” of streets e.g. through green roofs, street trees etc.
Developments do not always reflect or enhance local landscape character.	Aim to increase quality of open space including for visual amenity / landscape value
The public often lack environmental awareness.	Aim to improve access to natural spaces e.g. through creating new access routes, signage, interpretation boards.
Urban residents lack opportunities or awareness to access greenspaces.	Aim to increase accessibility and connectivity between residential areas, open space and wider green network.
Greenspaces are sometimes poorly managed and maintained.	Aim to increase quality of open space, including making spaces more multi-functional.
Greenspaces do not form cohesive networks which limits their value as wildlife corridors and for recreation.	Aim to avoid fragmentation of green networks and increase connectivity between spaces.
There can be conflicts between outdoor access and conservation interests which may affect wildlife habitats.	Supports access strategy.
Environmental quality may be reduced over the long term through erosion of tree cover and wildlife habitats.	Supports policies in LDP seeking to protect open space; Provides framework for management decisions.

Spread of non-native invasive species.	Provides framework for management decisions.
Poor environmental quality of allotment gardens in some instances.	Provides framework for management decisions.
Lack of safe off road opportunities for cycling and walking.	Supports access policies in LDP, Outdoor Access Strategy and Local Transport Strategy.
Threats to protected areas /designated sites. Threats to locally valued wildlife.	Supports policies in LDP seeking to protect open space; support biodiversity and wildlife conservation objectives.

2.10 It is considered that through the SEA process, these existing environmental concerns shall be taken into account and, where necessary, mitigation measures will ensure that the existing concerns highlighted will not be aggravated, and in some instances they may be reduced.

Likely evolution of the environment without the OSS?

2.11 The principle purpose of carrying out an SEA is to anticipate and understand the impact the OSS is likely to have on the environment of the region. However it is also important to understand the implication of not implementing the OSS and the likely future changes that would occur as a result.

Given the need to have a strategic response to recent financial pressures and budget restrictions that all Councils face, the need to maximise developer contributions towards open space, as well as the need to address other priorities such as responding to the effects of climate change, if a Strategy were not now produced, the following issues could be anticipated: open space may become poorly managed which may lead to a deterioration in the quality of the urban environment and may not fully satisfy the expectations of the public; there would not be a mechanism to co-ordinate the work of agencies, local authorities and other interest groups involved in the delivery of open space management; there would also be less opportunity for local people to influence the way that greenspaces are managed in the future.

Development of Assessment Criteria

2.12 The Scoping Report (submitted to the SEA Gateway on 15th January 2014) set out the proposed method by which to examine the OSS and assess its impacts on a range of environmental issues

2.13 Based on the Scoping Report, and the comments received from the Consultation Authorities, the key objectives/tests for SEA purposes are shown below in Table 5.

Table 5: SEA Objectives for the OSS

SEA Topic	SEA Objective	Indicators
<p>Biodiversity, Flora and Fauna</p>	<p>To help implement the objectives of the Scottish Biodiversity Strategy</p> <p>To halt the loss of biodiversity and continue to reverse previous losses through targeted action for species and habitats</p> <p>To increase awareness, understanding and enjoyment of biodiversity and engage many more people in conservation and enhancement</p> <p>To restore and enhance biodiversity in all our urban and rural environments through better planning, design and practice</p> <p>To develop an effective management framework that ensures that biodiversity is taken into account in all decision making</p> <p>To ensure that the best new and existing knowledge on biodiversity is available to all policy makers and practitioners</p> <p>Encourage tree planting and habitat creation initiatives.</p> <p>Consolidate and develop networks of greenspace and wildlife corridors including any missing links.</p> <p>Ensure adequate protection given to designated conservation sites and habitats.</p>	<p>Condition of designated¹ sites</p> <p>Additional designated sites created</p> <p>LBAP species/habitats stable or increasing</p> <p>European protected species stable or increasing</p> <p>Invasive Species control/expansion</p>
<p>Population and Human Health</p>	<p>To increase the opportunities for access to and enjoyment of open</p>	<p>Number of improved access routes</p>

¹ Designated sites are protected areas that represent the very best of Scotland's landscapes, plants and animals, rocks, fossils and landforms. Their protection and management will help to ensure that they remain in good health for all to enjoy, both now and for future generations. They may be designated to meet the needs of international directives and treaties, national legislation and policies or more local needs and interests.

SEA Topic	SEA Objective	Indicators
	<p>space by all sectors of society</p> <p>To maximise the role of open space in contributing to quality of life</p> <p>To maximise the role of open space in contributing to health and wellbeing</p> <p>To maximise the role of open space in creating safe, pleasant and good quality new development</p> <p>Promote travel options based on walking and cycling and provide appropriate networks</p> <p>Develop programmes to raise levels of environmental awareness</p> <p>Provide better information and interpretation on greenspaces to residents and visitors</p> <p>Provide off road path provision and safe routes to schools and business</p> <p>Promote community gardening and allotment projects</p>	<p>Number of cycle paths</p> <p>Open space audit quantity and quality</p> <p>Amount and quality of new open space provided as part of new development</p> <p>Number and type of improvement projects for existing open space</p> <p>Number of people using open space</p> <p>Satisfaction with quality of open space</p>
Water	Encourage more naturalistic approaches to watercourse management emphasising retention of natural vegetation to absorb run off	Ecological status of waterbodies
Air	To maximise the role of open space in contributing to air quality	Air quality trends
Climatic Factors	<p>To further increase the role of open space in achieving carbon sequestration</p> <p>Provide accessible, high quality open space to reduce the need to travel to access open space</p> <p>To ensure that open space planning and management take account of the need to adapt to climate change</p>	<p>Accessibility data from Open Space Audit</p> <p>Details of projects relating to climate change and open space</p>
Material Assets	To manage, maintain and promote efficient use of material assets in	Quality and usage data from open space audit / Council

SEA Topic	SEA Objective	Indicators
	accordance with the type and function of open spaces	assessment records
Cultural Heritage	<p>Need to identify areas that are particularly sensitive to change</p> <p>To further promote the protection and enhancement of the historic environment</p> <p>To further increase awareness and understanding of cultural heritage related to open space</p>	Number and condition of designated and non designated sites
Landscape	<p>Encourage more planting within new development and existing greenspace</p> <p>Promote an integrated approach to local design and distinctiveness with planners and developers</p> <p>Work with stakeholders to ensure that higher standards of maintenance are implemented</p> <p>Protect the landscape from intrusive development</p> <p>Provide increased opportunities for people to appreciate the landscape through use of open space</p>	<p>Amount of open space lost to development</p> <p>Quality data from Open Space Audit</p> <p>Number of type of projects relating to open space improvements e.g. new access routes / provision of new signage, information boards etc.</p>

Following advice from consultation with the consultation authorities, the topic of soil has not been included in the assessment as it is considered unlikely that the OSS would have any significant impact on this.

3. Assessment of Environmental Effects and Measures for Mitigation

Alternatives considered

3.1 The Environmental Assessment (Scotland) Act 2005 requires consideration of reasonable alternatives to the plan to be identified, described and evaluated. The consideration of alternatives relates to the means by which the objectives of the plan can be met by different approaches.

3.2 Potential reasonable alternatives have been identified as follows:

- **Option 1 – Maintain status quo:** Given the need to have a strategic response to recent financial pressures and budget restrictions that all Councils face, the need to maximise developer contributions towards open space, as well as the need to address other priorities such as responding to the effects of climate change, if a Strategy were not now produced, the

following issues could be anticipated: open space may become poorly managed which may lead to a deterioration in the quality of the urban environment and may not fully satisfy the expectations of the public; there would not be a mechanism to co-ordinate the work of agencies, local authorities and other interest groups involved in the delivery of open space management; there would also be less opportunity for local people to influence the way that greenspaces are managed in the future.

- **Option 2 – Produce a very high level strategy without taking account of open space audit data:** Although a strategy could be produced which simply provided a broad framework, this would not provide an opportunity to set out the standards which have been formulated. These have Council-wide implications and otherwise would only be found within the Supplementary Guidance on Open Space. This would not be the appropriate location for these strategic standards and would limit the use of them to only planning applications.
- **Option 3 – Produce a detailed strategy informed by open space audit data and the needs and priorities of different Council services:** This is felt to be the best option as it will provides the appropriate framework to set out a range of Council wide standards which can be used for a number of different Services. This will also provide the mechanism by which to set out the results from the Council’s first ever open space audit.

3.3 Table 6 indicates that Option 3 provides the best option when assessed against all the SEA objectives. As a result this will be the only option taken forward for assessment in the SEA.

Key

Impact	Significant positive impact	Positive impact	Neutral impact	Unknown impact	Both Positive and Negative impacts	Negative impact	Significant negative impact
Score Symbol	++	+	0	?	+/-	x	xx

Table 6: Assessment of Alternative Approaches

	Biodiversity, Flora and Fauna	Population and Human Health	Water	Air	Climatic Factors	Material assets	Cultural heritage	Landscape	Comments
Option 1	0	0	0	0	X	0	0	X	This approach would result in out of date policies and possibly would not provide sufficient consideration and a strategy in relation to the opportunities that open space can provide in terms of biodiversity, health, climatic factors and the landscape. If a new strategy were not to be put in place it could be anticipated that this could lead to a poorly managed urban environment which would have a negative effect on the landscape. By not providing new and protecting existing green networks the lack of a new strategy may also have a negative effect on climatic factors.
Option 2	+/-	+/-	+	0	+/-	0	0	+/-	This approach would not provide the opportunity to set out or measure any minimum standards for open space. Without any baseline data from an open space audit there would be no guidance on where new and/or improved open space resources are most and least required. Other than the effect on water, where increased multi-functionality of open space would likely have a positive effect by increasing the use of SuDS etc., this approach would likely lead to mixed outcomes.

	Biodiversity, Flora and Fauna	Population and Human Health	Water	Air	Climatic Factors	Material assets	Cultural heritage	Landscape	Comments
Option 3	+	++	+	0	+	+	+	+	Preparing an OSS alongside an Open Space Audit is likely to be the most robust approach. It allows for open space standards to be set and measured, which in turn sets a framework for addressing issues of deficiencies in open space provision and facilities. This approach alongside the effect of protecting existing open space networks whilst also increasing such networks is likely to have major benefits for population and human health whilst also benefitting biodiversity, climatic factors, landscape and water. This approach will also provide guidance in seeking contributions from developers towards open space and where these contributions are best spent.

Assessment methods

3.4 The OSS has five separate objectives. All of these objectives have been assessed for their environmental effects and likely significance upon the environmental baseline. The objectives were assessed against a range of environmental issues set out in Schedule 3 of the SEA Act, using the SEA objectives which formed the assessment criteria shown in Table 5 above. The assessment was informed by the following steps:

- Predicting potential environmental effects
- Determining the magnitude of the effects and the sensitivity of the receptors
- Evaluating the significance of the effects of implementation
- Predicting the cumulative effects of the OSS
- Developing mitigation measures to prevent, reduce or offset effects
- Revising assessment taking into account agreed mitigation measures

3.5 The assessment results for the Strategy are summarised in Table 7 below. The evaluation framework shown above was also used to assess the environmental performance of the OSS in relation to the potential significance of the impacts. It is anticipated that on the whole the impacts will be long term.

Summary

3.6 Overall the assessment showed significant positive, positive or no impacts. No significant negative impacts have been identified.

3.7 The OSS attempts to provide a framework for the future provision and development of open space within Dumfries and Galloway. The strategy aims to ensure that open space within the region meets certain criteria in terms of quantity, quality and accessibility. The aims of the strategy are likely to have positive effects on climatic factors by providing more options for people to travel without the use of a car. The strategy will also provide more outdoor leisure and recreational opportunities for people. These two factors will culminate in significant positive effects on the population's health and wellbeing. As well as this there are likely to be positive effects for biodiversity, especially within urban areas, due to the increased quantity of open space. The strategy will also have a positive effect on the landscape. Again this will probably be most significant within urban areas

3.8 The full assessment results are shown in Appendix 2.

Table 7: SEA Assessment Results – Summary of Overall Assessment of the OSS

OSS Objective	SEA Topic								Comments
	Biodiversity, flora and fauna	Population and Human Health	Water	Air	Climatic Factors	Material Assets	Cultural Heritage	Landscape	
1. Maintain or increase (where necessary and possible) the amount of open space with the aim of meeting the publicly usable open space quantity and accessibility standard	+	++	0	0	+	+	0	+	Objective 1 will have significant positive impacts for population and human health. Increasing the quantity of open space will provide the population with increased opportunities for participating in leisure and recreational activities, which will improve human health. Increasing the quantity of open space will also have positive impacts for biodiversity and the landscape, especially within urban areas.
2. Avoid fragmentation of existing open space networks	++	+	+	0	+	+	+	+	Objective 2 will have positive impacts on biodiversity by ensuring that, for example, habitat movement corridors are not impeded, as also on population and human health. Maintaining existing open space networks will protect current green networks which provide people with alternatives to travelling by car and also act as wildlife corridors. It will also have small positive impacts on climatic factors, cultural heritage and the landscape.

OSS Objective	SEA Topic								Comments
	Biodiversity, flora and fauna	Population and Human Health	Water	Air	Climatic Factors	Material Assets	Cultural Heritage	Landscape	
3. Increase / enhance connectivity between open spaces and between these and residential areas	+	++	0	0	+	+	0	+	Objective 3 will have a significant positive impact on population and human health. This is due to providing more opportunities for people to travel by foot or cycle instead of by car. This in turn will also have knock on benefits for climatic factors. It will also be of benefit to biodiversity as the increased connectivity between open spaces can act as wildlife corridors.
4. Maintain or increase (where necessary and possible) the quality of existing spaces and ensure that new spaces are of good quality	+	++	0	0	+	+	+	+	Objective 4 will have small positive impacts on landscape and material assets and significant positive effects for population and human health. Increasing the quality of open space will result in open space becoming more valuable as a material asset whilst also improving its appeal as a landscape enhancement feature. Objective 4 will also help to increase the quality of management of open spaces which will have positive effects on climatic factors (e.g. being managed to play a role in mitigation and adaptation) and biodiversity (e.g. being managed to improve or create habitats).

OSS Objective	SEA Topic							Comments	
	Biodiversity, flora and fauna	Population and Human Health	Water	Air	Climatic Factors	Material Assets	Cultural Heritage		Landscape
5. Ensure new open space is made as multi-functional as possible, serving a number of different uses and aim to improve multi-functionality of existing spaces	+	+	++	0	+	+	+	+	Objective 5 has been assessed as potentially having a significant positive impact on water. Increasing the multi-functionality of open space to include SuDS could help to relieve flooding. Increased multi-functionality will also make open space more valuable as a material asset, whilst also being of benefit to biodiversity and climatic factors.

Mitigation

3.9 The precise effects of the OSS are, in many cases, going to be difficult to predict at a very local level. It will depend on the type of open space that is provided and how it is provided. The effects, whether positive, neutral or negative will depend on the following:

- how the strategy is implemented on the ground;
- the precise nature of any proposed development that are taken forward; and
- the specific environmental characteristics of the potential locations.

There are no significant adverse effects anticipated as a result of the implementation of the OSS and therefore no specific measures have been identified for the prevention, reduction or offsetting of these.

4. Monitoring

4.1 Monitoring of the effects of implementing the OSS will be based on the performance of a set of key indicators which are indicated in Table 5 above. The majority of monitoring for the SEA objectives is already undertaken by the Council or by other government bodies or agencies. Any new identified data can be incorporated into the monitoring arrangements for the OSS. This allows SEA monitoring to be incorporated into the existing performance monitoring.

4.2 The Council has published the Local Development Plan Monitoring Report which includes many of the monitoring needs identified within this SEA. This will be a valuable baseline document to support the monitoring process. The requirements and mitigation measures identified during this OSS SEA process will feed into the next LDP Monitoring Report.

4.3 Further monitoring is undertaken for the Local Biodiversity Action Plans and Local Habitat Plans. It is expected that SEPA will continue to monitor water quality whilst SNH has responsibility to monitor and report on the condition of SSSIs and has a similar regime in place for monitoring the status of sites designated under the Habitats Directive. Locally designated sites and monitoring of key species and habitat management are the responsibility of local authorities. Monitoring will, therefore, rely on the continued day to day management and site knowledge of those managing land for which they have responsibility, and the ongoing activities of the environmental regulators.

Appendix 1: Baseline Information

There are local characteristics to the baseline information listed in Table 3 that merit particular consideration in relation to the Dumfries and Galloway Open Space Strategy.

Biodiversity, Flora and Fauna

Dumfries and Galloway contains a wide variety of natural and semi-natural habitats. These habitats range from remote uplands through moorlands and marginal farmland to a diverse coastline and extensive intertidal estuaries. The quality and importance of these habitats is reflected in a range of national and international conservation designations. Table 8 indicates the range of statutory sites designated in the region (please note, however, that some sites have multiple designations):

Table 8: Statutory Designations

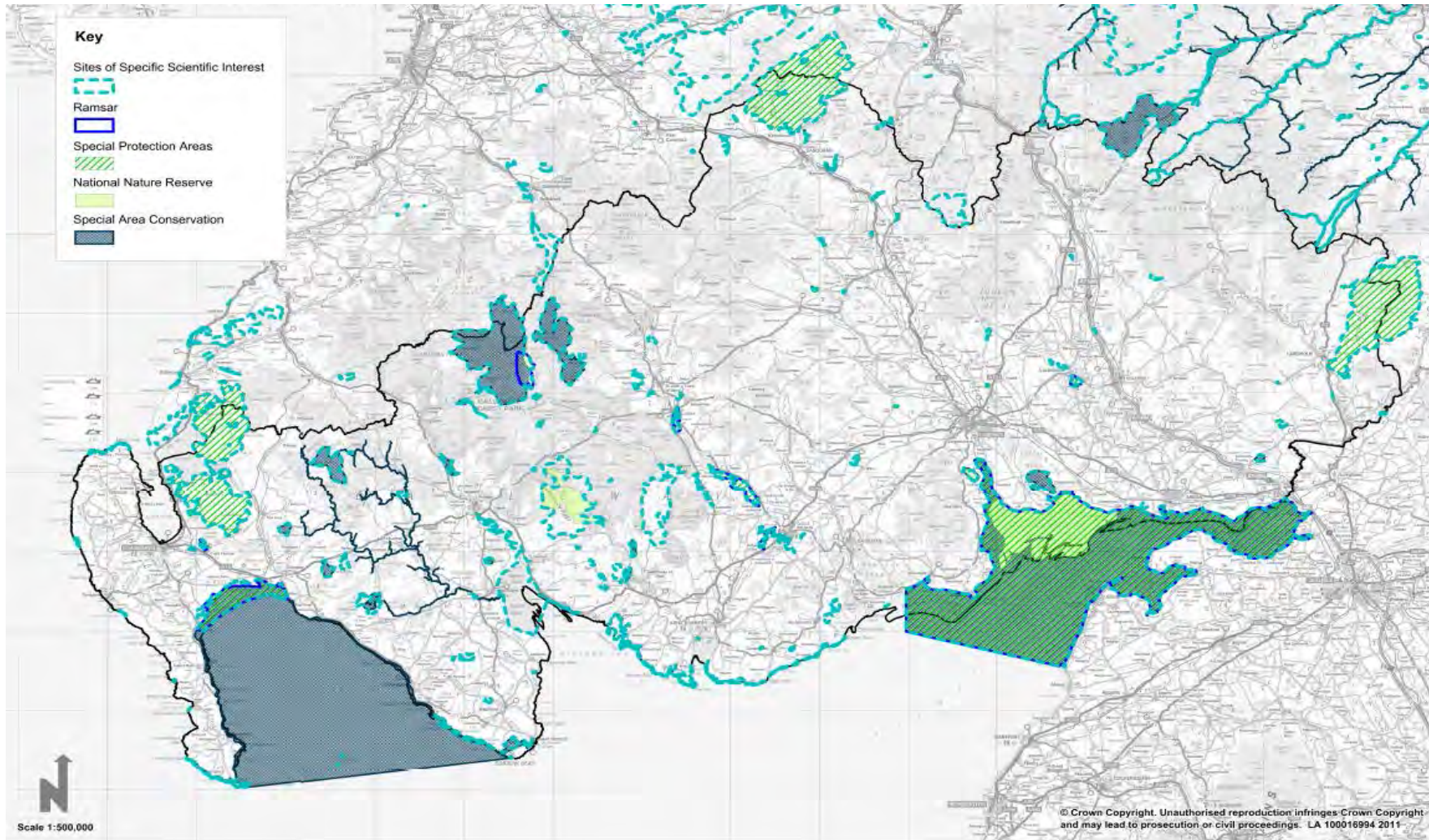
Designation	Number of Sites	Total area covered in Hectares
Ramsar Wetlands of International Importance	5	33,706
Special Areas of Conservation (SACs)	17	91,963
Special Protection Areas (SPAs)	7	48,713
Sites of Special Scientific Interest (SSSI)	97	75,380
National Nature Reserves (NNRs)	4	9,961
Local Nature Reserves (LNRs)	2	2,982

Source: Dumfries and Galloway Local Biodiversity Action Plan (2009)

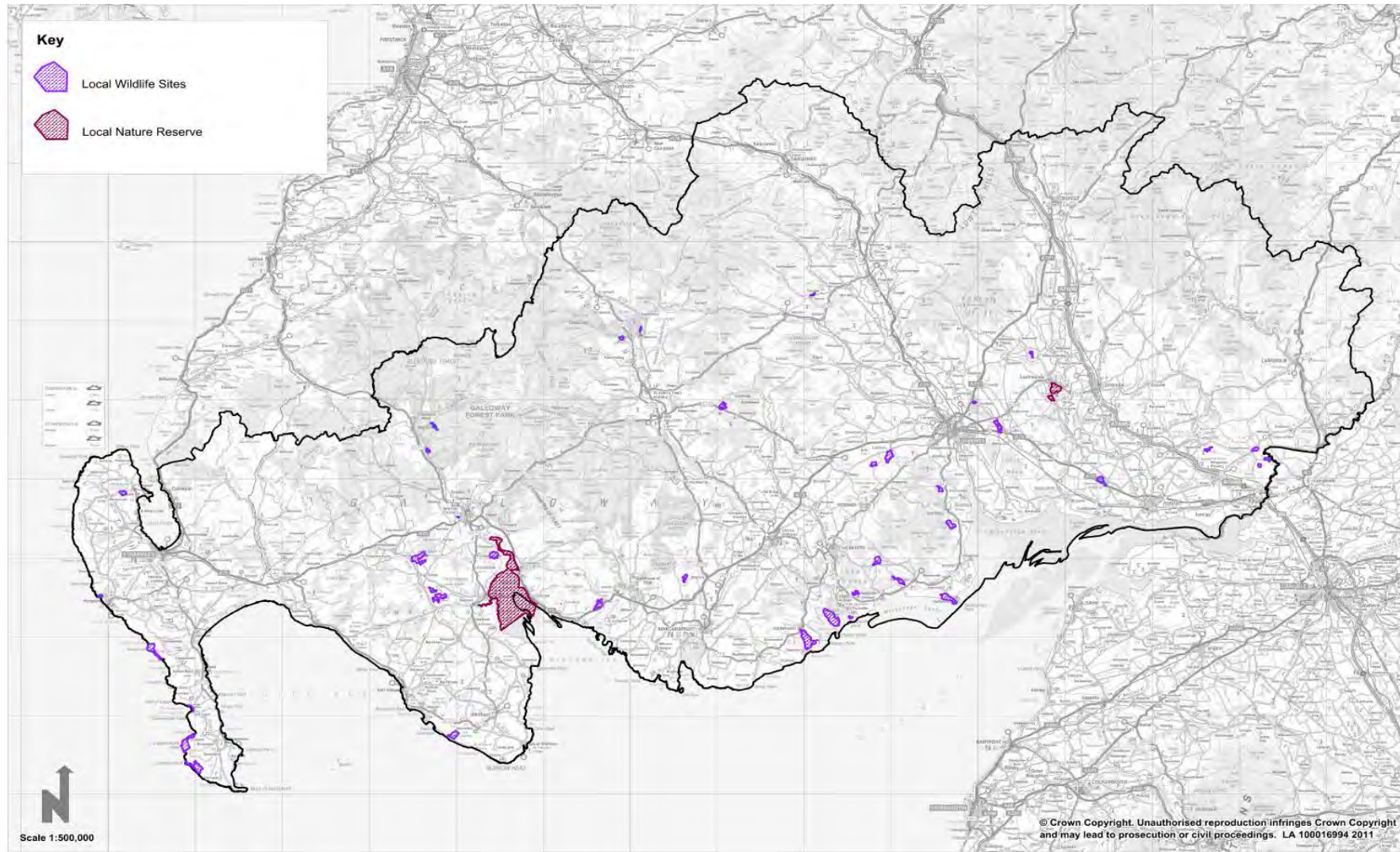
The locations of the above designations are shown on Maps 2 & 3. The region also contains 52 non-statutory Local Wildlife Sites (LWS), also shown on Map 3.

Some species, due to their nature, move around over or long or short distances, which can make their presence difficult to map accurately. SNH should be contacted in relation to their presence, and that of other protected species, on specific sites.

Map 2: Nature Conservation Sites



Map 3: Local Wildlife Sites and Local Nature Reserves



Population and Human Health

The region's population is concentrated in small towns and villages with a large, thinly populated rural hinterland (Map 4).

Figures released by the National Records of Scotland estimate the population of Dumfries and Galloway to be 150,830 as of June 2012. This is an increase of 2250 (1.49%) since 2008.

Three factors influence population change – births, deaths and migration. Over the past decade Dumfries and Galloway's population has been in a state of 'natural decline' with more deaths per year than births. This along with improvements in mortality rates and the ageing of the 'baby boomers' has resulted in a generally older population

Dumfries with a population of 37,846 is the largest settlement in the region with only two other settlements above 5,000 in population, namely Stranraer (10,851) and Annan (8,389). There are 13 settlements with a population between 1,000 and 5,000 and 9 settlements with a population between 500 and 1,000.

There are low levels of household income in the region with the:

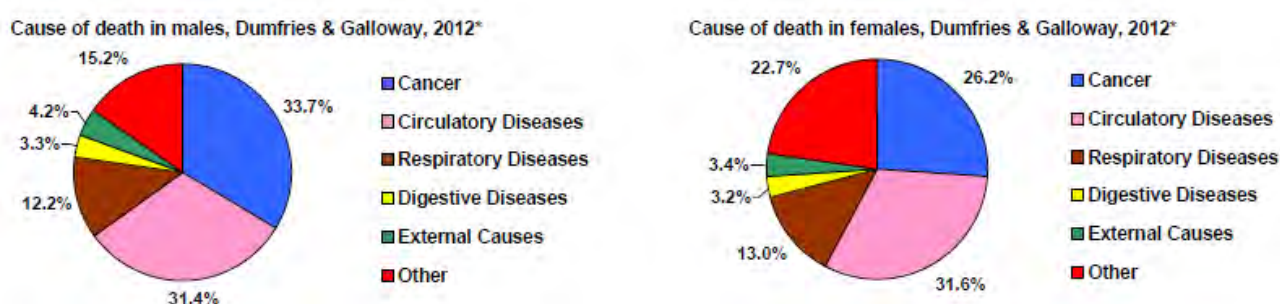
- proportion of employees earning less than £7 per hour is the third highest in Scotland
- number of households in receipt of tax credits over and above the family element is the highest in Scotland

In the region between 2002 and 2008, the percentage of households in relative poverty increased from around 17% to 22%.

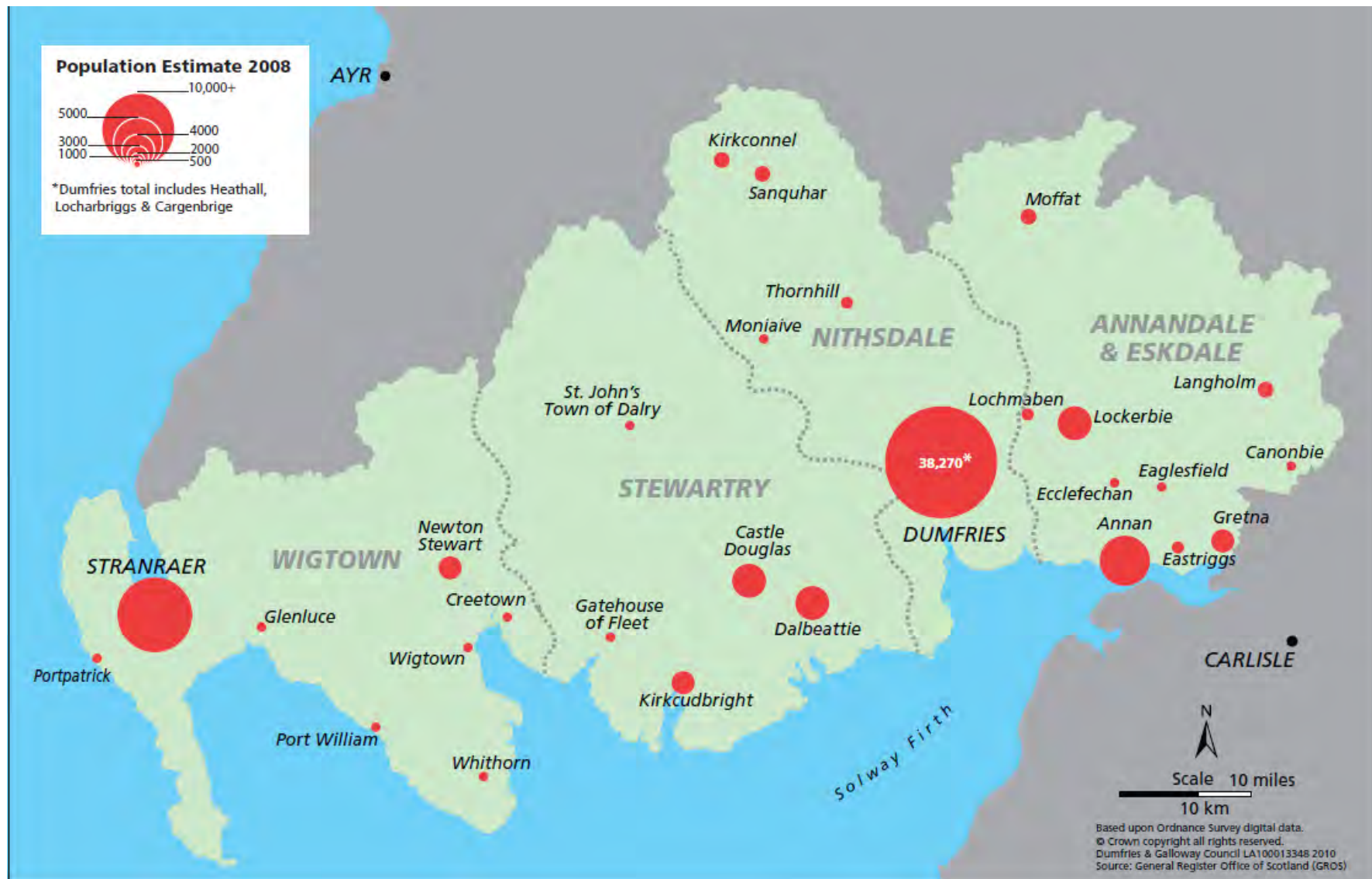
Between 2008-2010 life expectancy for men in Dumfries and Galloway was 76.7 and for women was 81.5.

Causes of death in both males and females are shown in Figure 1.

Figure 1: Mortality by Cause



Map 4: Main settlements within Dumfries and Galloway



Material Assets

The Council has adopted a core path network which is shown in Map 5.

The Council has carried out an Open Space Audit. The audit covered 1000 sites across 48 settlements within the region. The quantity of open space varied from 0.12ha per 1000 people in Palnackie to 78.55ha per 1000 people in Gatehouse of Fleet. The average amount of open space in each settlement was approximately 12ha per 1000 people. More results from this will be available in the Council's Open Space Strategy.

Water

The baseline for the quality of waterbodies in the region is contained in the Solway Tweed River Basin Management Plan 2009. This can be viewed at http://www.sepa.org.uk/water/river_basin_planning.aspx. In 2008 49% of water bodies were considered to be at good status or higher.

In relation to flood data the most important source of baseline information is the SEPA Indicative River and Coastal Flood Map for Scotland. There are significant flood risks across the whole width of the region.

Air

There are no Air Quality Management Areas within the region at present, although this may change after further monitoring particularly at specific locations in Dumfries.

Climatic Factors

Due to the rural nature of the region the population is often more dependent on their own transport and therefore emissions of carbon dioxide from transportation are considerably higher than in Scotland as a whole (3.73 Kg/capita and 1.89 g/capita respectively).

Greenhouse gases appear less per capita than in wider Scotland (3620.92 Kg/capita against 4859.89 Kg/capita), however, being a dairy farming region, the amount of methane produced by livestock is likely to be significant.

Average temperatures experienced within the region have increased by 1°C since 1970, which is comparable with the UK average. It is anticipated that average temperatures will continue to rise in line with the rest of the UK. It is also likely that the number of extreme weather events will also increase (including flooding, storms, etc.).

Cultural Heritage

The region has a rich cultural heritage with:

- 3,400 listed buildings (7% are Category A and 53% are Category B)
- 38 Conservation Areas of which 16 are classified as outstanding
- 32 designated Archaeological Sensitive Areas
- 1039 important scheduled ancient monuments

The locations of the above can be found on Maps 6-9, although please note that only Category A Listed Buildings have been mapped for the purposes of the SEA.

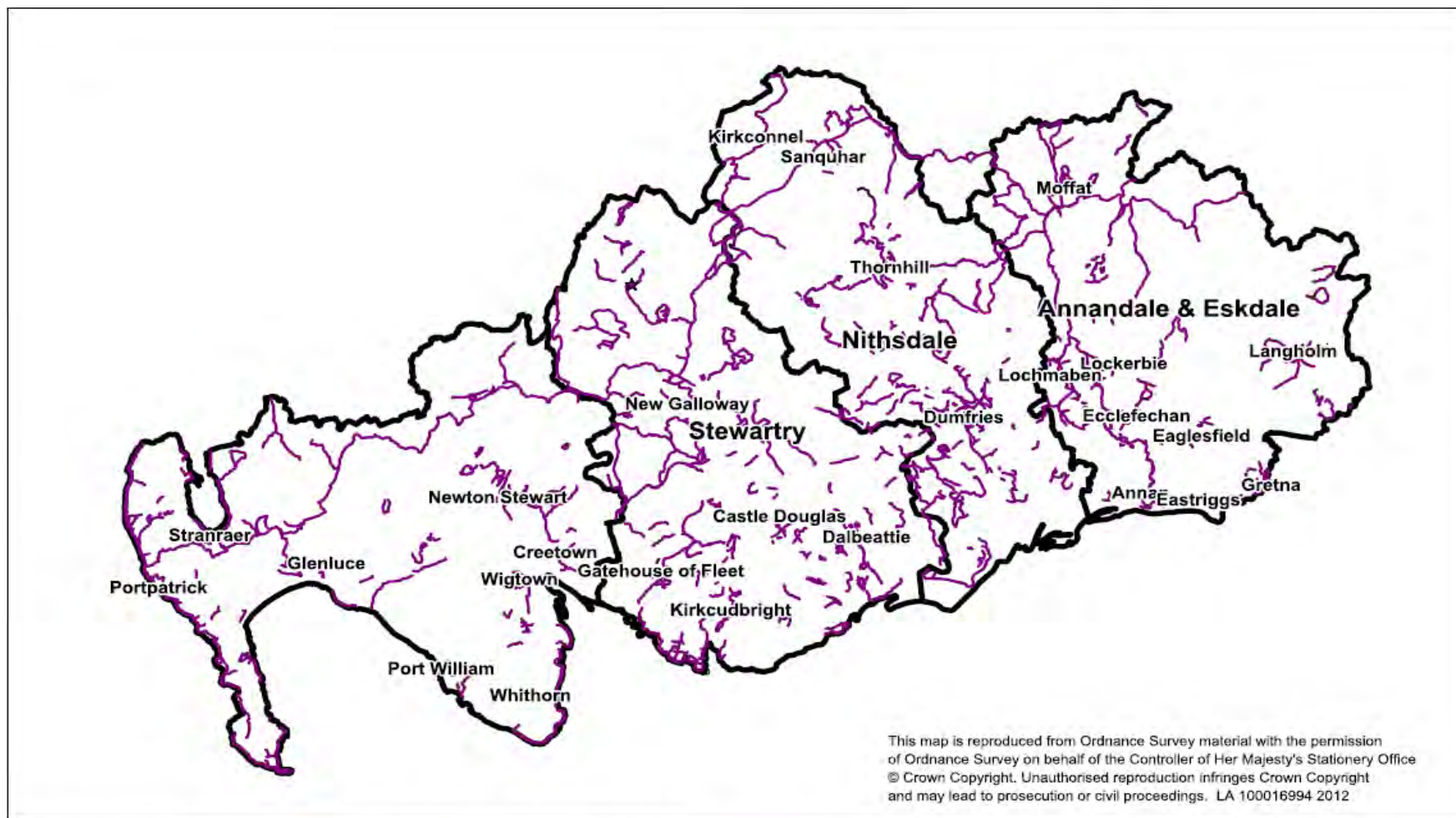
Landscape

The Landscape Character Assessment of Dumfries and Galloway identified four broad regional character areas which are divided into a number of landscape types and subtypes. The current landscape character types are shown in Map 10.

There are 20 Inventory Gardens/Designed Landscapes and 180 Non-Inventory Gardens/Designed Landscapes within Dumfries and Galloway. The locations are shown on Map 11.


The region also contains three National Scenic Areas (NSAs) and ten Regional Scenic Areas (RSAs) shown on Map 12. NSAs are nationally important areas of outstanding beauty, representing some of Scotland's grandest landscapes. The purpose of such designations is to preserve and enhance their character or appearance. RSAs are locally designated and are areas which are valued regionally or locally for their special scenic qualities.

Map 5: Dumfries and Galloway Core Path Network



Countryside Service
 Dumfries and Galloway Council,
 Militia House,
 Dumfries, DG1 2HR.

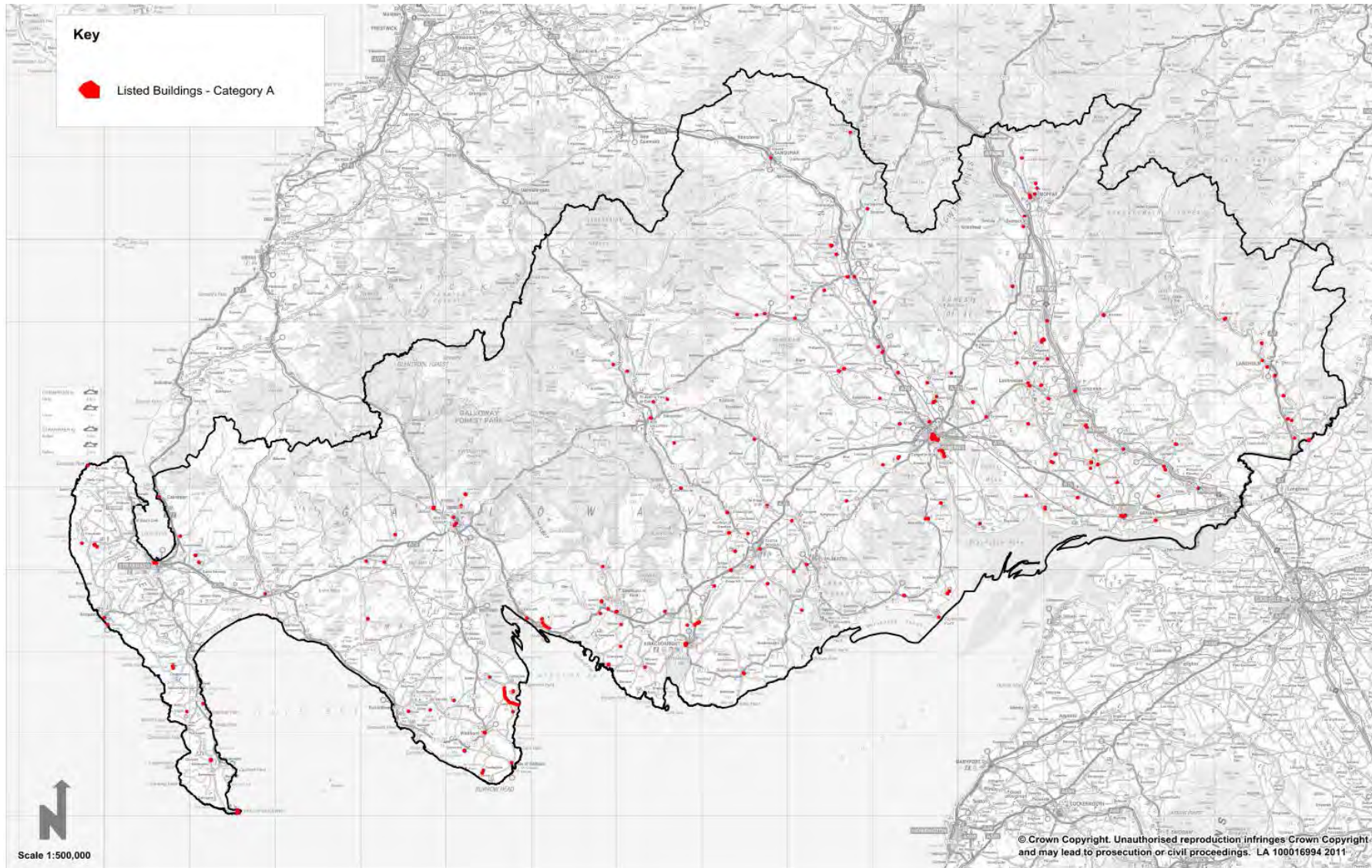
access@dumgal.co.uk

Dumfries & Galloway Core Paths 

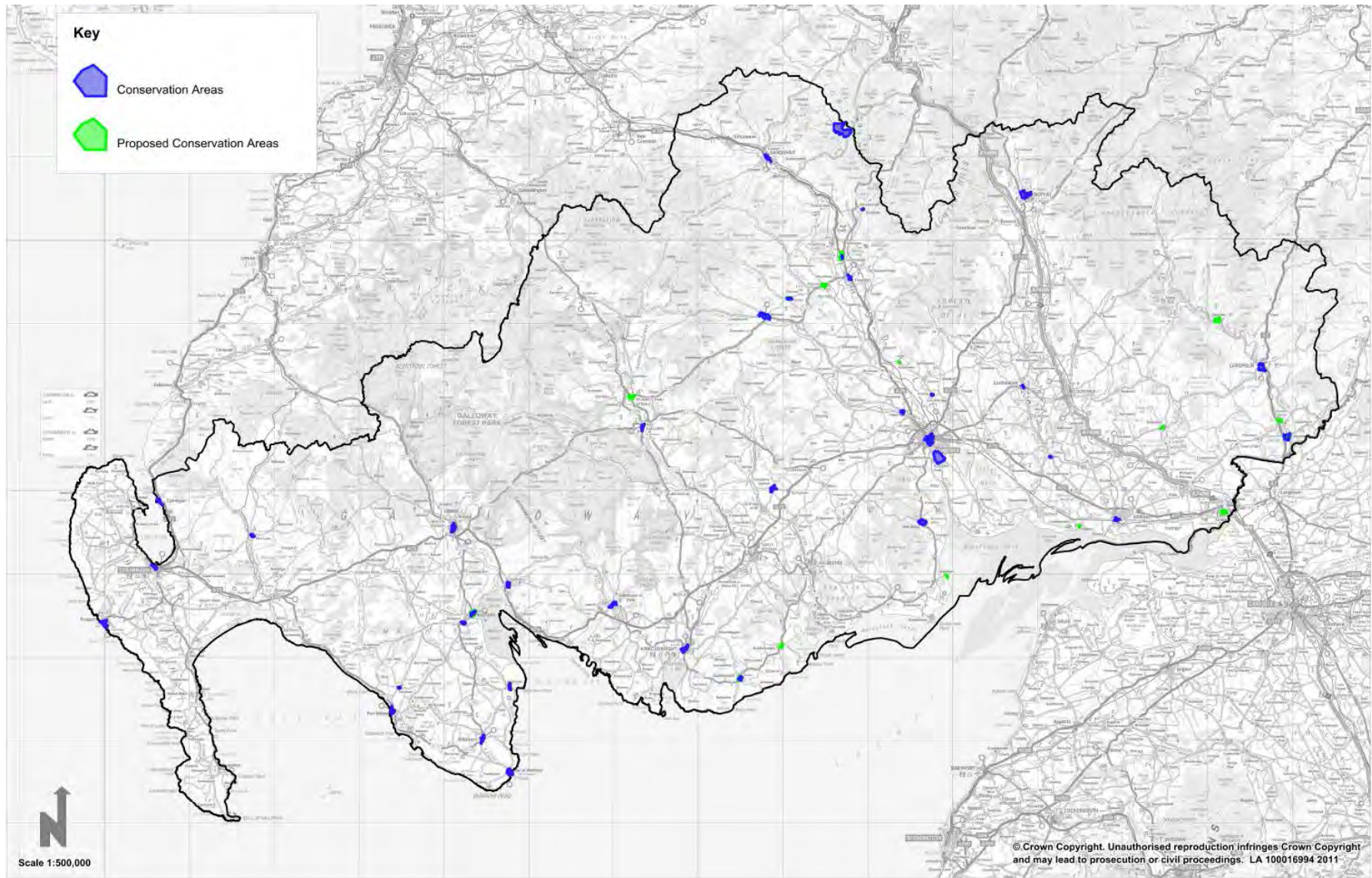
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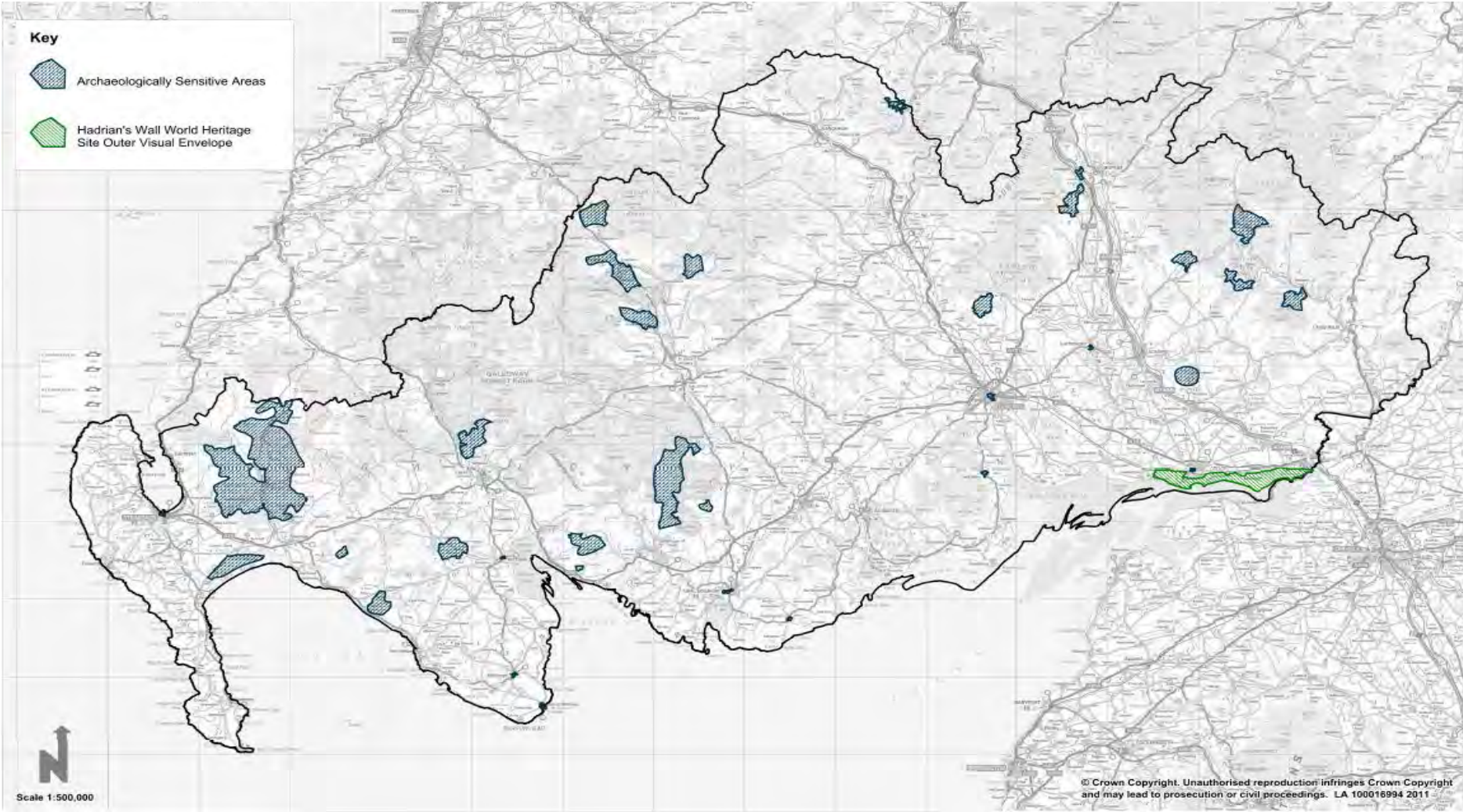
Map 6: Category A Listed Buildings



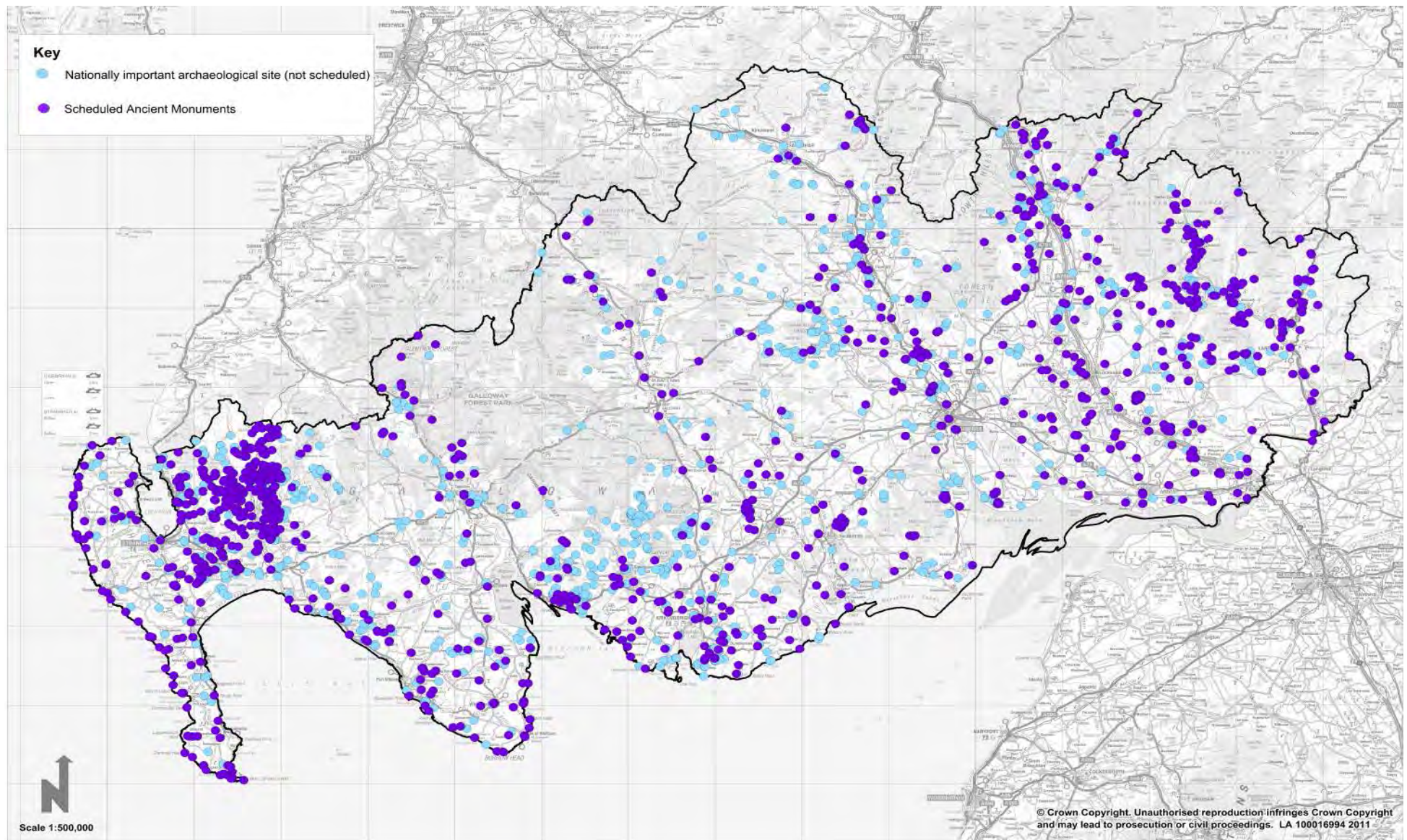
Map 7: Conservation Areas



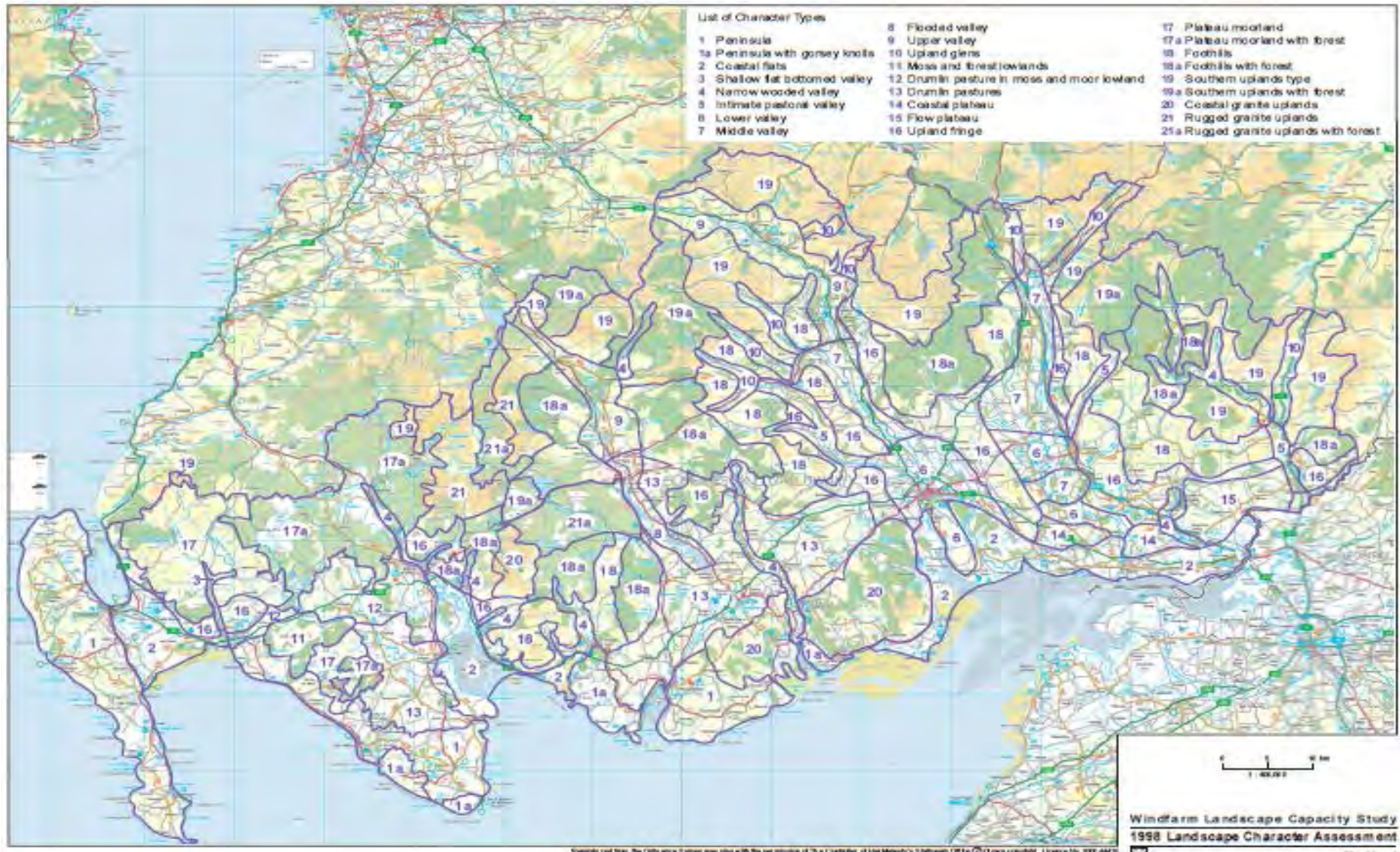
Map 8: Archaeologically Sensitive Areas and Hadrian's Wall World Heritage Site



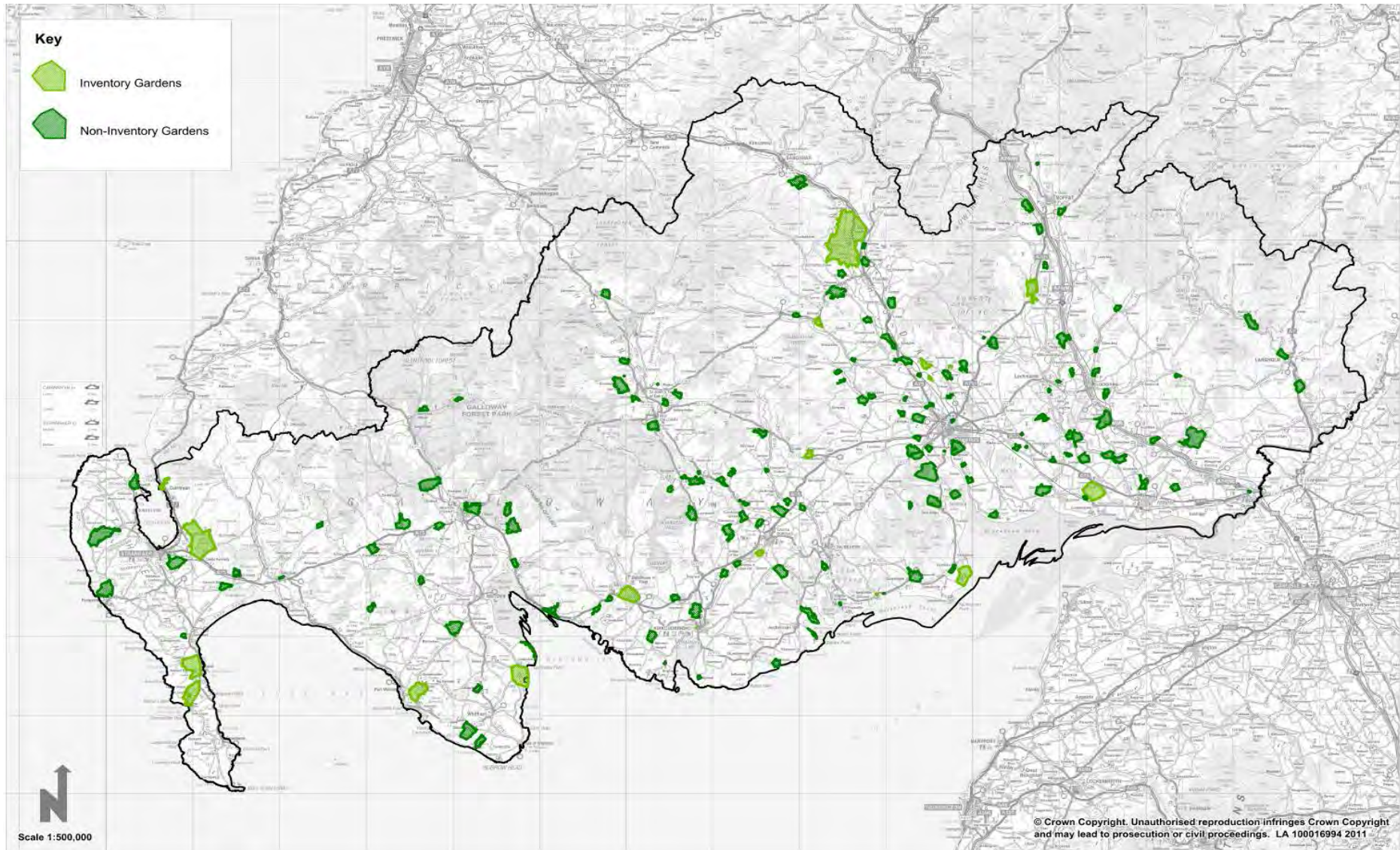
Map 9: Nationally Important Archaeological Sites



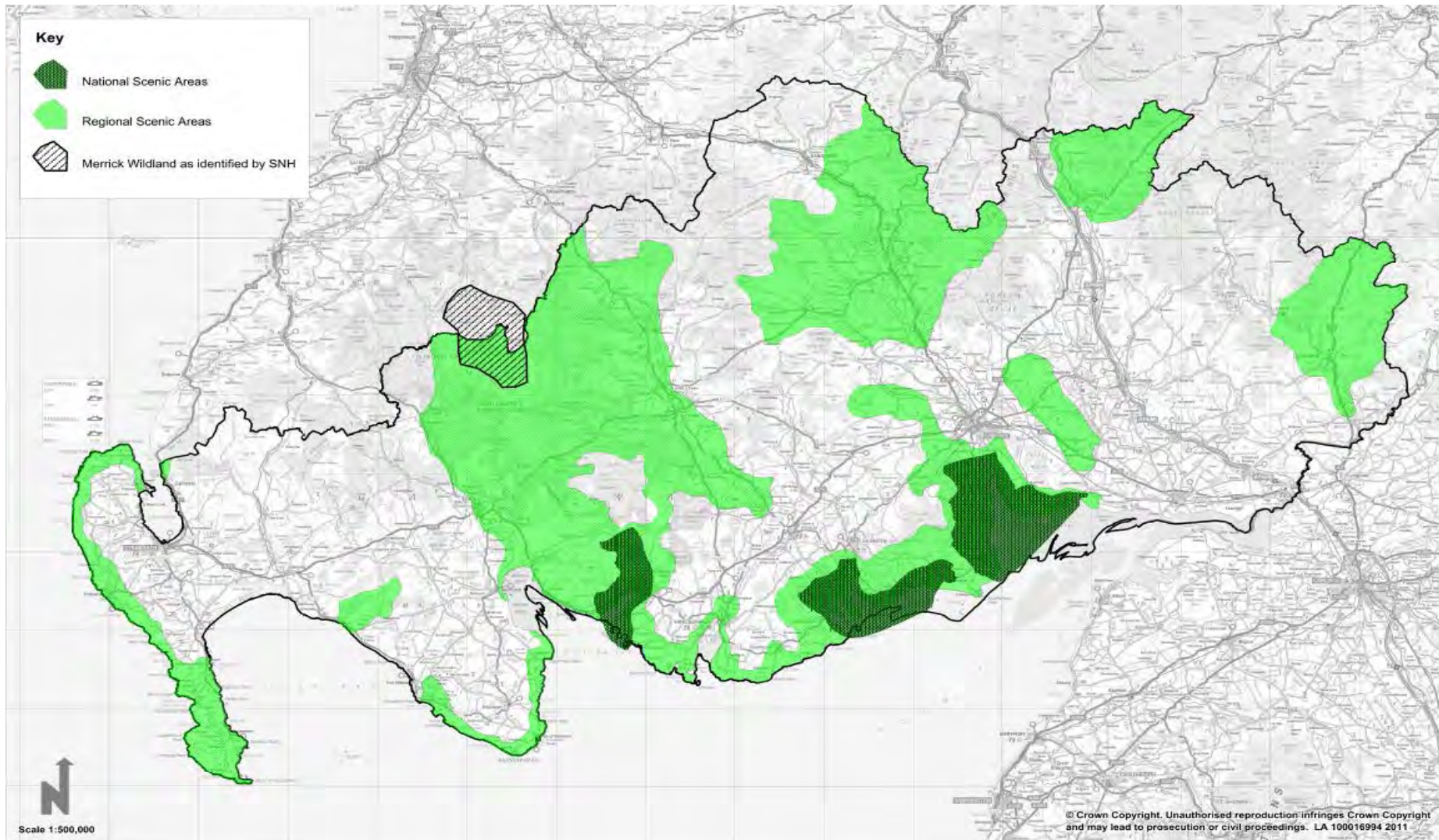
Map 10: Landscape Character Areas



Map 11: Inventory and Non-inventory Gardens and Designed Landscapes



Map 12: National Scenic Areas, Regional Scenic Areas and Wildland



Appendix 2: Full Assessment of Results – SEA

SEA Topic	SEA Objective	OSS Objectives ²					Comments
		1	2	3	4	5	
Biodiversity, Flora and Fauna	To help implement the objectives of the Scottish Biodiversity Strategy	0	+	+	0	+	Increasing the amount, quality and multi-functionality of open space whilst also avoiding fragmentation, especially in urban areas, can help to protect and enhance biodiversity, especially within the urban environment.
	To halt the loss of biodiversity and continue to reverse previous losses through targeted action for species and habitats	0	++	+	+	0	Avoiding fragmentation and increasing quality (especially in relation to improving management of spaces for biodiversity) offers positive effects.
	To increase awareness, understanding and enjoyment of biodiversity and engage many more people in conservation and enhancement	+	++	++	+	0	Increasing the amount, quality and connectivity of open space will also make people more aware of the biodiversity in their local area.

2

Objective 1: Maintain or increase (where necessary and possible) the amount of open space with the aim of meeting the publicly usable open space quantity and accessibility standard

Objective 2: Avoid fragmentation of existing open space networks

Objective 3: Increase / enhance connectivity between open spaces and between these and residential areas

Objective 4: maintain or increase (where necessary and possible) the quality of existing spaces and ensure that new spaces are of good quality

Objective 5: ensure new open space is made as multi-functional as possible, serving a number of different uses and aim to improve multi-functionality of existing spaces

SEA Topic	SEA Objective	OSS Objectives ²					Comments
		1	2	3	4	5	
	To restore and enhance biodiversity in all our urban and rural environments through better planning, design and practice	+	+	+	+	+	
	To develop an effective management framework that ensures that biodiversity is taken into account in all decision making	+	++	+	+	+	
	To ensure that the best new and existing knowledge on biodiversity is available to all policy makers and practitioners	0	0	0	0	0	
	Encourage tree planting and habitat creation initiatives	+	+	+	++	+	
	Consolidate and develop networks of greenspace and wildlife corridors including any missing links	+	++	++	+	+	The OSS aims to both consolidate and develop networks of greenspace. The cumulative effect of these two factors is a significant positive effect. These networks act as ideal wildlife corridors which, especially in urban areas, benefit biodiversity greatly by allowing greater access to a wider range of resources.
	Ensure adequate protection given to designated conservation sites and habitats	0	++	0	+	0	
Population and Human Health	To increase the opportunities for access to and enjoyment of open space by all sectors of society	++	0	++	+	++	Increasing the amount of open space, increasing the connectivity between open spaces and between open
	To maximise the role of open space in contributing to quality of life	++	+	++	++	+	

SEA Topic	SEA Objective	OSS Objectives ²					Comments
		1	2	3	4	5	
	To maximise the role of open space in contributing to health and wellbeing	++	+	++	++	+	spaces and residential areas, protecting existing open space facilities from fragmentation and making open space more multi-functional will have strong positive impacts on population and human health by providing increased outdoor recreation opportunities and encouraging people to travel by walking and/or cycling.
	To maximise the role of open space in creating safe, pleasant and good quality new development	+	+	++	+	+	
	Promote travel options based on walking and cycling and provide appropriate networks	++	+	++	+	+	
	Develop programmes to raise levels of environmental awareness	0	0	0	0	0	
	Provide better information and interpretation on greenspaces to residents and visitors	0	0	+	+	0	
	Provide off road path provision and safe routes to schools and business	+	++	++	0	0	
	Promote community gardening and allotment projects	++	0	0	+	+	
Water	Encourage more naturalistic approaches to watercourse management emphasising retention of natural vegetation to absorb run off	0	+	0	0	++	
Air	To maximise the role of open space in contributing to air quality	0	0	0	0	0	The OSS doesn't address open spaces' role in contributing to air quality. However air quality isn't currently an issue in D&G and the OSS won't have a negative effect.
Climatic Factors	To further increase the role of open space in achieving carbon sequestration	+/-	0	+/-	0	+	The role that the OSS plays in achieving carbon sequestration is very much dependent on the sites that areas of new open

SEA Topic	SEA Objective	OSS Objectives ²					Comments
		1	2	3	4	5	
							space occupy. If areas of brownfield land are used to provide more open space then carbon sequestration will be increased. However if areas of greenfield land are used then there is potential to reduce carbon sequestration by creating new open space.
	Provide accessible, high quality open space to reduce the need to travel to access open space	++	+	++	++	+	The OSS aims to enhance the connectivity between open spaces and between open spaces and residential areas, whilst also protecting existing networks from fragmentation. Improving access will encourage walking and cycling and reduce greenhouse gas emissions.
	To ensure that open space planning and management take account of the need to adapt to climate change	+	+	+	+	+	Open space can also play an important role in mitigating the effects of climate change, such as rising water levels.
Material Assets	To manage, maintain and promote efficient use of material assets in accordance with the type and function of open spaces	+	+	+	+	+	Open space in itself is an asset. Therefore improving the quality and multi-functionality of open space whilst also increasing the quantity of it is a positive.
Cultural Heritage	Need to identify areas that are particularly sensitive to change	0	0	0	0	0	

SEA Topic	SEA Objective	OSS Objectives ²					Comments
		1	2	3	4	5	
	To further promote the protection and enhancement of the historic environment	0	+	0	+	0	Historical environments within areas of open space are offered a certain degree of protection by the open space.
	To further increase awareness and understanding of cultural heritage related to open space	0	0	0	+	++	Increasing the multi-functionality of open space could also allow for cultural heritage to play a greater role within open space.
Landscape	Encourage more planting within new development and existing greenspace	+	0	+	+	+	Increasing the quality of open space should result in higher standards of landscaping.
	Promote an integrated approach to local design and distinctiveness with planners and developers	0	0	0	+	0	Increasing the quality of open space should result in a better quality of local design.
	Work with stakeholders to ensure that higher standards of maintenance are implemented	+	0	0	++	0	Increasing the quality of open space should result in higher standards of maintenance are implemented.
	Protect the landscape from intrusive development	0	++	0	+	0	Objective 2 in particular protects the Open Space from intrusive development.
	Provide increased opportunities for people to appreciate the landscape through use of open space	++	+	++	+	++	The OSS, specifically increasing the amount of open space, is likely to have a positive visual impact on the landscape. Increasing the amount of open space will also lead to increased opportunities for people to appreciate their landscape.